

# Predictors of Social Media Advertisement Appeals and Consumers' Buying Behavior of a Fast-Food Chain Company

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## Abstract

The fast-food industry has faced stiff competition due to the mushrooming of various brands. Thus, marketers have to think of various promotional activities to attract consumers, and one of the strategies will be through the use of social media advertisement appeals. However, past studies mainly focused on rational and emotional appeals, and other advertisement appeals have received little attention. Thus, this study aimed to investigate a fast-food company's social media advertisement by focusing on the two main appeals, namely rational and emotional, and extended two additional appeals which are endorsement and aesthetic appeals. The study utilized the stimulus-response model as a theoretical framework and explained the relationships. The study applied quantitative methods and gained 168 valid responses via the purposive sampling technique. The results indicated that all four advertisement appeals (emotional, rational, endorsement, and aesthetic) are predictors of buying behavior, with emotional appeal as the most prominent appeal. The study urged that fast-food companies should pay attention to the provision of factual information, celebrity endorsements, and innovative aesthetic design to persuade consumers cognitively. Conclusion, implications, and future research avenues were discussed.

**Keywords:** advertisement appeals, social media, buying behavior, fast-food industry, marketing communication

## 1. Introduction

The emergence of fast food has slowly taken the lead in global food consumption as it is a rapidly growing industry in the world with expected to grow from USD 972.74 billion in 2021 to USD 1,467.04 billion by 2028 (Fortune Business Insight, 2024). In the current era, the convenience food industry tends to have the most technological breakthroughs such as the implementation of online ordering, expansion, drive-thru system, and company-based software that help to serve the consumers at a better speed and better services (Kumolu-Johnson, 2024; Slack et al., 2020). These implementations contributed tremendously to the growth of the industry.

In general, processed foods are described as ready-to-eat and easy-to-prepare meals that are quick to prepare. However, due to the mushrooming of this industry, has created a competitive environment for the industry to survive (SavorEat, 2022). In addition, there are claims that the industry is unsustainable (Lynch, 2021), and unhealthy (Béné, 2022). Thus, the marketer of fast-food companies has to utilize various promotional activities to persuade consumers, and one of the techniques is advertisement appeals by focusing on social media (Cassidy et al., 2021). The introduction of convenience food worldwide and recognizable advertisements for its convenience of acquiring with minimal time and its consumption, practically by young people who are constantly growing (Slack et al., 2020; Arslan et al., 2022; Mkumbo & Mbise, 2022), thus, it has effectively changed the consumption and purchase behavior of many consumers, particularly those who live in urban and developing countries (Khalid et al., 2019; Slack et al., 2020).

There are many studies conducted on analyzing the growth and the consumers' perception and buying behaviors of snack

food brands (Khalid et al., 2019; Sapic et al., 2019; Ghoochani et al., 2018; Slack et al., 2020), there are lack of studies that are conducted in the Malaysian context and studies that focused on possible appeals in this industry (Wan Nawawi et al., 2022). This has been strengthened by Wan Nawawi et al. (2022), who claim that the most effective advertising appeals for certain promoted brands are unknown up to this day as many previous researchers are puzzled about whether emotional or rational advertising appeals affect consumers' cognition perspective.

Furthermore, the previous studies mainly focused on emotional and rational appeals (Ariffin et al., 2022; Casais & Pereira, 2021; Vrtana & Krizanova, 2023) when it comes to advertisement appeals, and other appeals such as endorsement appeals (Wan Nawawi et al., 2022), and aesthetics appeals (Kumar et al., 2021; Ridzuan et al., 2021) are lacking to be studied in a single framework which urged researchers to reexamine the study again. Besides, studies mainly focus on the traditional advertising perspective, where interactive social media advertising needs further examination as it is timely to the digital trends (Tan et al., 2024; Yousaf et al., 2023) Thus, this study aims to examine the extended social media advertisement appeals (emotional, functional, endorsement, and aesthetics) on the buying behavior of consumers of a fast-food company.

## 2. Literature Review

### 2.1 Theoretical Underpinning

This study uses the Stimulus-Response model as the base to explain consumers' buying behavior. The stimulus-response model is a psychological theory established by Russian psychologist, Ivan Pavlov, that studies the response to specific actions. In general, it studies how certain actions can contribute to the foundation of certain responses, mostly by predicting the response. The theory is most likely related to 'classical conditioning' where the relationship is between the two interactions on how one action from one subject creates an appropriate justification that leads to one action from another subject (Cook et al., 2011; Rehman et al., 2023; Zhang et al., 2019). This indicates that the Stimulus-Response model is commonly used as a theoretical base for advertisers to study how consumers' behavior can be affected by advertisement appeals, implemented from the advertisement (Lu et al., 2018).

### 2.2 Hypothesis Development

Rational appeal refers to the necessary information regarding the advertised products. Such information is always relevant to the products, such as the materials or ingredients that are used to create the products or benefits that consumers could get an advantage from by purchasing and using the products (Li & Cui, 2021). Rational appeal commonly refers to the product specifications, features, and any information that is primarily aimed at building an effective impression from the consumers' perspective (Dolan et al., 2019; Trivedi et al., 2019), making the advertisement informationally strong, thus triggering consumers' attention of the product by information transmission and retrieval from the advertisement (Trivedi et al., 2019).

This shows that rational appeal plays a big role in influencing the consumers' purchase intentions as they are provided with factual information and logic, further assisting the consumers in making various evaluations and decisions of their purchase intention, either from a comparison of similar products from different brands or availability for purchases (Dolan et al., 2019; Ju & Jang, 2023). Furthermore, rational appeal represents the direct, one-way communication channel from the brands to the consumers. The information given from their advertisement product is highly valuable to the advertisement itself and is highly appreciated by consumers to evaluate their needs if they are interested in purchasing it (Zimand Sheiner et al., 2021). It has been proven from previous research that advertisements with a high rational appeal are very likely to successfully influence consumers' responses in favor of the product, especially in live-streaming contexts (Ma et al., 2023). In line with the discussion in the rational appeal, this research hypothesized that:

**H1:** There is a positive relationship between the rational appeal of X fast food company's social media advertisement and consumers' buying behavior.

Emotional appeal is an attractive factor in an advertisement that relates a product with an emotional connection to the consumers to persuade consumers to purchase the products (Wan Nawawi et al., 2022). This appeal makes consumers feel somewhat close or attracted to the advertisement by stimulating consumers' emotions and impressions of affection that are subjectively aligned with the consumers' beliefs towards the brand (Gahlot Sarkat et al., 2019). This appeal tends to highlight the brand personality in entertaining content that is accompanied by emotion, mentions, or emoticons that closely make the consumers feel somewhat close to them through the use of teasers, slogans, or wordplay (Dolan et al., 2019; Garg et al., 2023).

Advertisers commonly implement emotional appeal into their advertisements in an attempt to stimulate and insert affective responses through the presentation of persuasive messages of their products or brands. This persuasive action is commonly implemented by using verbal or non-verbal cues to maintain enough emotional responses (Gahlot Sarkar et al., 2019). Therefore, this study assumes that:

**H2:** There is a positive relationship between the emotional appeal of X fast food company's social media advertisement and consumers' buying behavior.

Endorsement appeal in advertising is defined as the use of celebrities as the attraction in advertisements to encourage and motivate buying behaviors among consumers (Wan Nawawi et al., 2022). An endorsement can be provided by a person, a celebrity, or a group of people that can influence consumers' attention toward specific products or brands. The use of endorsement would attempt to divert the consumers' attention, particularly the celebrities' followers towards the products and motivate them to purchase the products, thus, leading to increased sales (Ao et al., 2023; Chopra et al., 2021).

As social media becomes a mainstream channel for advertising and is largely dominated by youths, a new type of endorsement started to emerge which is peer endorsement. Peer endorsement refers to the use of common people as endorsers in an advertisement, such as influencers, social content agencies, or content creators (Fung, 2017). This aligns with consumers' belief that they have similar preferences and thus can share a similar experience that consumers would expect from the endorsers whenever they buy the same products (Fung, 2017; Wan Nawawi et al., 2022). Past research conducted by Młodkowska (2019) and Sheng et al. (2022) found that vloggers can influence consumers' perceptions by providing video reviews of the products that motivate consumers to buy the same products as the promoted ones. This shows that endorsement with peer endorsers starts to pick up the pace in advertising companies tend to engage in a collaboration or sponsor them to produce a credible source to motivate the consumers to buy their products. Therefore, the study postulated the following hypothesis:

**H3:** There is a positive relationship between the endorsement appeal of X fast food company's social media advertisement and consumers' buying behavior.

According to Kusumasondjaja (2019), aesthetic appeal refers to the attractiveness of an object through the use of visual representation. Previous researchers found that aesthetic appeal is about how the design elements are implemented in advertisement media such as color, form, shape, and texture, as well as concepts such as balance, contrast, composition, and harmony (Kusumasondjaja, 2019; Li & Li, 2022; Toufani et al., 2017). Previous studies also found that products or advertisements that are visually attractive can motivate consumers' attention toward the products (Kaspar et al., 2019).

It is found that aesthetic appeal can be used advantageously to generate positive consumer evaluations of the relevant objects through the trigger use of sensory stimuli among the consumers (Shi, 2021). The trigger of multiple sensory stimuli at once will gradually increase the entertainment value of the advertisements which makes watching the advertisements become interesting and enjoyable from the consumers' perspective. This resulted in the consumers eventually watching the same advertisement repeatedly (Febriyantoro, 2020) and simultaneously persuading the consumers to evaluate the advertised products positively and establish positive buying behaviors. In addition, findings from previous research have argued that structural properties of images such as simplicity or symmetry can directly contribute to aesthetic responses where consumers will establish their respective responses to the images (Kostyk & Huhmann, 2021). With convincing statements from multiple past studies, this research comes out with the following hypothesis:

**H4:** There is a positive relationship between the aesthetic appeal of X fast-food company's social media advertisement and consumers' buying behavior.

### **3. Methodology**

#### *3.1 Research Design*

This study was conducted through a quantitative method. Therefore, a structured questionnaire is built and used to collect the necessary data needed to test the established hypothesis. Quantitative research is the collection and analysis process of information from numerical data (Apuke, 2017).

#### *3.2 Sampling Procedure*

Purposive sampling was used for the survey. The requirements for participation are those who are based in Malaysia and those who are familiar with X fast food in general. Therefore, the respondents who were selected are social media users of Malaysian nationalities or foreigners who are residing in Malaysia and have seen the social media advertisements of X fast-food company. In addition, the respondents who did not buy the X fast-food products were also excluded.

This research used G\*Power 3.1.9.7 software to provide the necessary sample size since the study was not able to get the sampling frame. Based on the result of the G-power, (power: 0.80, number of predictors: 4; Effect size: 0.15) (Memon et al., 2020), a minimum 85 sample size was generated. Hence, the current study has 168 valid samples which are more than the threshold of 85, thus the sample is acceptable, and inferential statistics can be carried out.

#### *3.3 Measurement*

The first section contains demographic questions. The questions comprised gender, age, income, education level, which

social media platform to watch the X fast-food advertisements, and frequency of purchase of X-fast-food products. For the second section, the instruments highlighted the aesthetic appeal that was modified based on research by Yüksel (2016) and Lacroix et al., (2020). Section C is related to the rational appeal, where the items were adapted from research by Yüksel (2016). Besides, Section D is related to emotional appeals, and the instruments were adapted and modified from Krey et al., (2019) and Lacroix et al., (2020). Section E related to the endorsement appeal and the items were adapted from the study of Młodkowska (2019). The items for buying behavior were adapted and modified based on the study of (Li & Cui, 2021; Yüksel, 2016). Researchers used a Likert-type scale with five anchors (1= Strongly Disagree, 2= Disagree, 3= Somewhat Agree, 4= Agree, 5=Strongly Agree) (Koay et al., 2020).

### 3.4 Data Collection Procedure

The entirety of the research was conducted through the use of Google Forms. The questionnaire was distributed online by the use of link sharing through various social media platforms such as Reddit, WhatsApp, and Facebook, to name a few. To reduce the possible error margin, the option 'Limit to 1 Response' was checked, preventing one person from submitting more than one response. The data collection process was held for a month, starting on the 1<sup>st</sup> of July 2022 and ending on the 29<sup>th</sup> of July 2022.

### 3.5 Ethical Concerns

For this study, the researchers have included the written informant consent on the cover page of the online questionnaire before respondents proceed to answer the survey and only the respondents who agree to participate (by clicking on agree) will proceed to answer the survey. Respondents voluntarily participate in this research, where the consent form highlighted the anonymity and ensuring the confidentiality of the respondent's information, and data will be used for research purposes only.

## 4. Results

Based on Table 1, more than half of the respondents are females (66.7%), and are mainly aged between 21-25 years old (63.1%). As for income, more than half of the respondents earned less than RM1500 and have a bachelor's degree (60.7%) which mainly represents a young adult group. More than half of the respondents have experienced seen the X-fast food company social media advertisement via YouTube platform (63.1%) and often buy X-fast food products (39.1%)

Table 1. Profile of the respondents (N=168)

Variable(s)	Category	Frequency	%
Gender	Male	56	33.3
	Female	112	66.7
Age	<20	18	10.7
	21-25	106	63.1
	26-30	26	15.5
	31-35	10	6
	36-40	2	1.2
	>40	6	3.6
Income	<RM1500	98	58.3
	RM1500-RM2000	16	9.5
	RM2001-RM3000	18	10.7
	RM3001-RM4000	8	4.8
	>RM4000	28	16.7
Education	SPM/ High school	14	8.3
	STPM/ Foundation/ Diploma	22	13.1
	Bachelor's Degree	102	60.7
	Master's Degree	26	15.5
	Ph.D	4	2.4
Social media platforms used	Facebook	34	20.2
	Instagram	26	15.5
	YouTube	106	63.1
	X fast-food app	2	1.2
Frequency of purchase	Rarely	28	16.7
	Sometimes	54	32.1
	Often	66	39.3
	Always	20	11.9

### 4.1 Measurement Model

The measurement model was accessed through Cronbach's Alpha and composite reliability (CR), while convergent

validity (AVE) and discriminant validity were used to ascertain the validity. Thus, based on Hair et al. (2022), Cronbach’s alpha value should be higher than 0.70. As depicted in Table 2, Cronbach’s Alpha for all variables was higher than 0.7. Besides, Hair et al. (2022) also stated that the CR and the AVE should be greater than 0.7 and 0.5, thus the convergent validity is met.

Table 2. Convergent validity

Variable	Items	Loading	Cronbach’s alpha	CR	AVE
Aesthetic appeal	AA1	0.742	0.739	0.741	0.561
	AA2	0.706			
	AA3	0.775			
	AA5	0.770			
Buying behaviour	BB1	0.899	0.764	0.806	0.681
	BB2	0.862			
	BB3	0.702			
Emotional appeals	EA1	0.781	0.741	0.746	0.659
	EA2	0.820			
	EA4	0.832			
Endorser appeal	EndA1	0.839	0.889	0.899	0.820
	EndA2	0.951			
	EndA3	0.923			
Rational appeal	RA1	0.830	0.839	0.866	0.672
	RA2	0.890			
	RA3	0.804			
	RA4	0.748			

Heterotrait–Monotrait ratio (HTMT) of correlations is applied to examine the discriminant validity (Henseler et al., 2015). As suggested by Gold et al. (2001), the HTMT values should be less than the threshold of HTMT<sub>.90</sub>, thus, discriminant validity is ascertained (see Table 3). Besides, collinearity was examined using variance inflation factor (VIF) with a threshold value of 3.3 (Diamantopoulous & Siguwaw, 2006) (see Table 4), thus, no serious collinearity problems were detected in this study.

Table 3. HTMT ratio

	AA	BB	EA	EndA	RA
<b>AA</b>					
<b>BB</b>	0.706				
<b>EA</b>	0.766	0.857			
<b>EndA</b>	0.369	0.590	0.614		
<b>RA</b>	0.448	0.636	0.712	0.588	

4.2 Structural Model

Table 4 and Figure 1 show the results for rational appeal ( $\beta = 0.187, t = 3.151, p = 0.001$ ), emotional appeal ( $\beta = 0.325, t = 4.236, p = 0.000$ ), endorsement appeal ( $\beta = 0.168, t = 2.934, p = 0.002$ ), and aesthetic appeal ( $\beta = 0.236, t = 4.809, p = 0.000$ ) were found to have a positive and significant relationship with the consumer buying behavior. Thus, H1, H2, H3, and H4 were supported, with emotional appeal being the prominent appeal among the other advertisement appeals. The R<sup>2</sup> value of 0.524 indicated that all exogenous constructs were able to explain 52.4% of the variance in consumer buying behavior.

Table 4. Direct effects

Hypothesis	Std. Beta	Std. error	T	P values	LLCI (5%)	ULCI (95%)	D	R <sup>2</sup>	f <sup>2</sup>	VIF
H1: RA -> BB	0.187	0.059	3.151	0.001	0.087	0.281	S	0.524	0.044	1.659
H2: EA -> BB	0.325	0.077	4.236	0.000	0.197	0.449	S		0.109	2.036
H3: EndA -> BB	0.168	0.057	2.934	0.002	0.077	0.265	S		0.040	1.491
H4: AA -> BB	0.236	0.049	4.809	0.000	0.152	0.314	S		0.079	1.481

\*\*p < 0.01, \*p < 0.05; S= Supported

LLCL= Lower Level Confident Interval; ULCL=Upper Level Confident Interval

1-tailed test

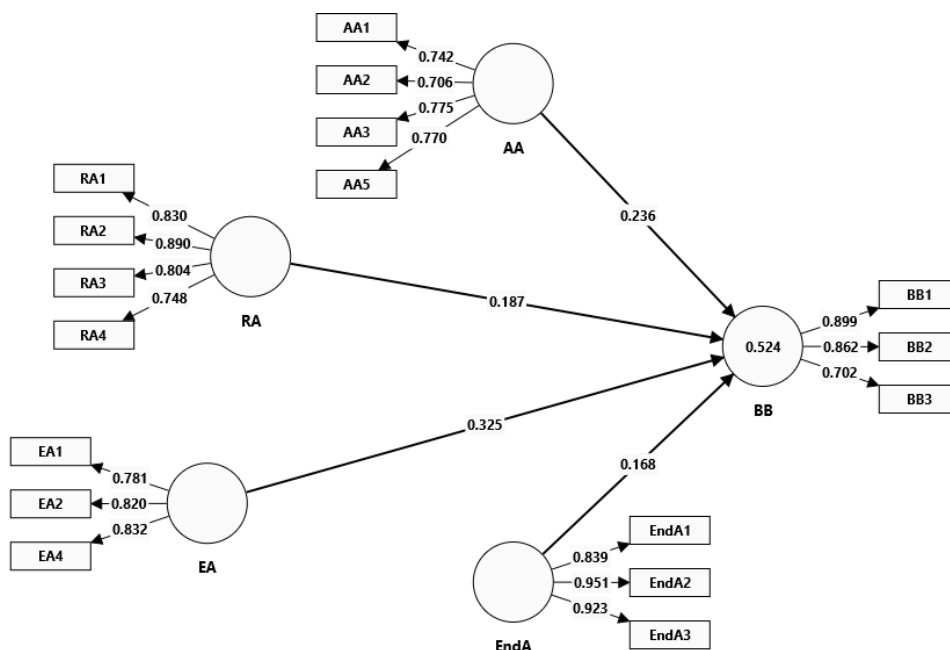


Figure 1. Structural model assessment

In predicting the model, variables can be replaced when the study evolves, and the researchers aimed to investigate the out-sample prediction (Shmueli et al., 2019; Hair, 2020). Hence, PLS prediction assessments were utilized (Shmueli et al., 2016). PLSpredict was to verify the predictive relevance of the current research model (PLS-SEM\_RMSE) as compared to the future model (LM\_RMSE). Thus, the majority of the new values, and outcomes of (PLS-SEM\_RMSE – LM\_RMSE) are higher as shown in Table 5, thus, indicating that the current model has a weak predictive power to predict consumer buying behavior in the future.

Table 5. PLS Predict

Items	Q <sup>2</sup> predict	PLS-SEM RMSE	LM RMSE	PLS-SEM - LM
BB1	0.474	0.660	0.647	0.013
BB2	0.315	0.816	0.801	0.015
BB3	0.205	0.985	0.950	0.035

**5. Discussion**

Building on the lens of the Stimulus-Response model, this research examined social media advertisement appeals and consumers’ buying behavior. Grounding on the Stimulus-Response model, rational appeal, emotional appeal, endorsement appeal, and aesthetic appeal were proposed as stimuli that contributed to the buying behavior (response). The outcomes derived from the data analysis bring insights into the phenomenon of consumer behavior and indicate that consumers’ buying behavior is significantly driven by the four advertisement appeals. The findings of the current research are expected to benefit the X fast food company by understanding the driving factors of consumers’ purchase behavior and improving their engagement.

As a result of the structural model assessment, firstly, the rational appeal is acknowledged as a positive determinant predicting the buying behavior among consumers of X fast-food company. This outcome is congruent with the result of Ahn et al. (2022), who evidenced rational appeal as effective in enhancing consumers’ purchase attitudes and intention in offline upselling settings. The current result is also in line with the findings of Ma et al. (2023), in which the researchers acknowledged rational appeal as a factor that impacts the purchase intention of live-streaming. In the present research, it can be concluded that X fast-food company consumers are more inclined to purchase the products after they receive information about the rational appeal of the advertisement.

Secondly, emotional appeal is proven to be another predictor of buying behavior. Based on the findings of prior research, Ma et al. (2023) stated that emotional appeal as a stimulus exerts an indirect effect on consumers’ purchase intention. The result is also consistent with the result of Garg et al. (2023) that various music, emotions, and stories in advertisements are effective in improving purchase intention. In this research, it can be implied that consumers of X fast-food company are more willing to engage in purchase behavior of fast-food products if their emotion is stimulated.

Moving to the association between endorsement appeal and buying behavior, the outcome of the structural model modeling confirmed this relationship. This result is in line with Firmanza and Artanti (2022), in which the researcher indicated that consumers intend to purchase a product on a social media platform that is endorsed by an attractive, honest, and well-known individual. This is because celebrities can improve consumers' understanding of the products by disseminating the words about the products (Wan Nawawi et al., 2022). Besides, as found by Nabil et al. (2022) and Moreira et al. (2023), celebrity enables a higher level of consumers' self-confidence and a sense of meaningfulness. Such positive perceptions motivate consumers to produce positive attitudes. In the context of this research, it can be concluded that X fast-food company's consumers are more likely to purchase its products if it is celebrity-endorsed and the celebrity delivers the product information correctly.

Lastly, aesthetic appeal is evidenced as a predictive factor affecting buying behavior. This finding is supported by the result of Hussain et al. (2022) and Li and Li (2022) that the aspects of aesthetic appeal in advertisements can provoke the emotions and interests of consumers. In this research, this finding implies that X fast-food company consumers engage in purchasing its products when they are encouraged by various aesthetic elements, such as color, form, and shape in advertisements.

## 6. Conclusions

In conclusion, this study intended to examine the social media advertisement appeals (rational and emotional) with the inclusion of the two new appeals (endorsement and aesthetic) on the consumer buying behavior of X fast-food company. The results indicated that all four appeals have a positive and significant influence on the consumer's buying behavior.

### 6.1 Academic Implications

The utilization of the Stimulus-Response model for this study is to understand how these appeals (stimuli) could influence consumers' perspectives and their buying behaviors. The use of the Stimulus-Response model from the findings of this study contributed to the existing studies of understanding which advertisement appeals have proven to be the most effective in advertising. In addition, this study contributed to the advertising and marketing communication scholarship by incorporating the endorsement and aesthetic advertisement appeals into a single framework as predictors of consumer buying behavior which is still lacking investigation.

### 6.2 Practical Implications

Rational, emotional, endorsement, and aesthetic appeals are validated to trigger consumers' buying behavior. Out of four predictors, the role of emotional appeal is evidence more significant. To understand consumers' preferences and behavior better, some effective strategies can be used. For instance, artificial intelligence can be applied to produce advertisements according to the demands of consumers, which may help X fast-food company achieve a higher level of sales performance (Garg et al., 2023). Other than that, this result suggests that rational, endorsement, and aesthetic appeals can serve as strategies, which should be taken into consideration by X fast-food company as well. The findings of this research also encourage the marketers of X fast-food company to pay attention to the provision of factual information, celebrity endorsements, and innovative aesthetic design of the advertisements to influence the consumers.

### 6.3 Limitations and Future Research Avenues

This study has several limitations that can be developed or improved by future researchers. The current study only focuses on the Malaysian context, thus using Malaysian respondents and the Malaysian branch of X-fast food company. Future researchers may be required to use cross-country or international contexts and respondents to get a more holistic result.

In addition, this study only focuses on four appeals that are usually associated with advertisement studies. Future research should consider analyzing a broader or specific range of appeals in advertisements such as humor appeal, snob appeal, or social appeal, to name a few (Rabab'ah et al., 2024), and test the mediating and moderating effects of image, reputation (Chan et al., 2024) and religiosity (Cabano & Minton, 2023) will also interesting to be carried out by focusing on other industries.

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## Author Contributions

Conceptualization, T. J. C. and M.U.M. R.; methodology, T. J. C. and H. T. H.; software, T. J. C. and Y. T.; validation, T. J. C., N. H. H., and H. T. H.; formal analysis, Y. T.; resources, T. J. C., N. H. H. and H. T. H.; data curation, M. U. M. R.; writing—original draft preparation, T. J. C. and M. U. M. R.; writing—review and editing, T. J. C., M. U. M. R., Y. T., N. H. H. and H. T. H.; supervision, T. J. C.; project administration, T. J. C. and M. U. M. R.; funding acquisition, T. J. C. All authors have read and agreed to the published version of the manuscript.

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Obtained.

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

**Data sharing statement**

No additional data are available.

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