

The effect of message framing on the students of higher education institutions for college selection

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ABSTRACT: This study aimed to investigate the effect of message framing on prospective students' attitudes and the impact on their intention to select a college. Marketers often face difficulties expressing messages positively or negatively. This study was conducted on Vocational and High School students using an experimental laboratory design with positive and negative message framing advertisements.

Manipulation checks were conducted on 30 participants to test whether they could differentiate between the two. The results showed a significant difference in belief and evaluation of advertisements using positive and negative message framing, indicating both can be differentiated.

Furthermore, hypothesis tests using Smart PLS showed no difference in consumer attitudes in university advertisements using positive and negative message framing, resulting to have the same attitude. The second hypothesis test showed that consumer attitudes positively and significantly affect the prospective students' intentions.

KEYWORDS: message framing; consumer attitude; intention.

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1. Introduction

Many high school graduates want to proceed to college every year. This requires them to select a college and provide information about the graduate's abilities, university quality, and degree obtained (Horstschräer, 2012). Universities need to provide complete and interesting information about their qualities to get quality prospective students. This requires universities to disseminate promotional information through advertisements. Fakhri

et al., (2017) identified five factors that shape the choice of private universities, including the college's image, location, and promotion, as well as the influence of parents and friends.

Zadeh & Mirzaei-Alamouti (2017) stated that advertising is a means of communication with organizational clients to increase customer impact. To achieve this goal, marketers must design advertising content properly to ensure that consumers respond as expected. In this case, they design advertisements by creating proper framing messages. Message framing could be designed positively and negatively to influence behavior (Cesario et al., 2013). According to Cesario et al., (2013), framing positive and negative messages helps marketers predict when different frames effectively influence behavior.

Roy & Sharma (2015) stated that message framing conveys the positive consequences of adopting a behavior (a gain frame). It may also convey the negative consequences of not adopting a behavior (a loss frame). The relative effectiveness of gain- or loss-framed messages depends on the message recipient's disposition (Covey, 2014). Marketers often face difficulty expressing messages in positive or negative framing. Additionally, the effect of messages is not the same under all conditions and could be moderated by other factors.

Soliha & Purwanto (2012) showed significant differences between consumer risk perceptions as well as positive and negative messaging framing. The motivation moderates the effect of framing messages on consumer risk perceptions. In this study, the advertising is college advertising. Segev et al., (2015) found that A gain-framed advertisement elicits more favorable attitudes toward advertisements than a loss-framed advertisement. Moreover, message framing in functional food products was more effective than negative message framing (Soliha et al., 2014). Fatmawati et al. (2018) found no difference in the attitudes of consumers that received positive and negative message framing.

To explain the attitude and behavior model, this study uses the theory of planned behavior (TPB) from Ajzen (2015). TPB has been shown to provide consistent behavioral predictions of perceived behavioral intention and control, and that large changes in the intention are found to also result in behavioral changes (Sniehotta et al., 2014). According to this model, attitudes, subjective norms, and perceived behavioral control (PBC) help understand the reasons or factors that explain individual actions (Putra et al., 2022; Cheng & Huang, 2013).

Putra et al. (2022) stated that TPB explains individuals intend to perform a behavior when they evaluate it positively, believe that others support it, and perceive it to be under their control. Attitudes toward behavior are individual positive or negative feelings about performing a behavior. In this case, people have a more positive attitude to act when they believe the behavior has more positive consequences (Ajzen, 2015).

An explicit experimental framework about different sensitivities to advantages and disadvantages is needed to determine the differences in individual attitudes, behavior, and

situational influence (Cesario et al., 2013). Studies on university advertisements used the survey method. Jan & Ammari (2016) examined the effect of online advertising on decision-making and their choice of higher education using a sample of 350 students. Njomo (2014) also explored the impact of deceptive advertising in Private Higher Education Institutions in Cameroon using a survey method with 201 students.

This study differs from Soliha et al., (2014), which examined higher education advertising by testing the message framing effect on consumer risk perception. The study found that consumers feel a lower risk perception of a positive message framing in higher education advertising. In contrast, this study aims to examine the effect of message framing on attitudes. According to Soliha et al., (2014), negative message framing was more effective in functional food advertisements. This current study also differs from Fatmawati et al., (2018), which tested the effects of message framing in promoting electricity-saving behavior. The results showed no difference in attitudes between positive and negative message framing.

The novelty of this study aimed to examine the effect of message framing on attitudes and the intention to select higher education for High and Vocational High School students using college advertisements. Message framing affects individual attitudes and intentions comprehensively. An experimental approach was used to understand the framing of messages and describe individual intentions. The results were confirmed by testing the model using structural equation modeling analysis.

2. Hypothesis development

The relation between message framing and consumer attitude

The prospect theory stated that framing influences people's decisions. Rothman & Salovey (1997) proposed that different behaviors have different levels of risk, meaning framing effects should differ across behavioral classes. A messaging framework could be designed by making positive and negative message framing (Cesario et al., 2013). Moreover, the prospect theory stated that when faced with options with certain and uncertain outcomes, the framing of the uncertain outcomes influences people's preferences for each option (Rothman & Salovey, 1997). People are risk-averse and riskseeking when the uncertain outcome is framed based on potential gains and losses, respectively (Cesario et al., 2013). According to Bartels et al., (2010), preventive behavior is risk-averse or more certain and is best advocated by a benefits framework. This means that detection behavior is risky or uncertain and best advocated by the loss framework. Segev et al., (2015) found that A gain-framed advertisement elicits more favorable attitudes toward advertisements than a loss-framed advertisement. In this case, message framing must be considered when marketers deliver messages.

The framing is likely to affect consumer attitudes toward an advertisement. Therefore, the first hypothesis was formulated as follows:

H1: Consumers feel different attitudes about advertising using positive and negative message framing.

The relation between consumer attitude and intention

The intention is closely related to purchase motives (Juliana & Sihombing, 2019). It is the consumer tends to buy a service or product influenced by the information collected (Banjarnahor, 2018). Referring to the theory of planned behavior, attitude is one of the antecedents that influence a person's intention to act (Putra et al., 2022). Attitude expresses people's feelings that reflect their likes or dislikes towards an object. In line with this, consumers' attitudes had significant relationships with purchase intentions of hybrid cars in Malaysia (Teoh & Noor, 2015). Adrinanto (2016) found a positive influence of attitude on behavioral intention to adopt m-banking. Furthermore, Putra et al. (2022) showed that attitude positively affects the intention to use freemium-paid versions of online applications and games. The attitude towards online shopping positively affected customers' intention to purchase online (Tran & Nguyen, 2022). Abdullah & Yu (2019) found a positive and significant relationship between attitudes and consumer intention to purchase luxurious counterfeit fashion in China. There was also a positive correlation between attitudes and intention to purchase counterfeiting luxurious fashion products in Vietnam (Ha & Tam, 2015). The path coefficient between attitudes towards fashion counterfeit and purchase intention is positive and significant (Jaiyeoba et al., 2015). In line with this, Pérez- Villarreal et al. (2020) confirmed the importance of attitudes on intentions. Therefore, the second hypothesis was formulated as follows:

H2: Consumer attitudes positively affect intention.

3. Method

This study used an experimental method to identify causal relationships between variables. The method involves intervention beyond measurement to manipulate variables and observe their effects on people or physical entities (Blumberg et al., 2014). Common interventions are manipulating and observing the variables' effect on the subjects studied. This study manipulated independent variables and observed the effects of dependent variables (Soliha, 2016).

This study used an experimental approach, which manipulates variables explicitly and divides the subject into experimental and control groups (Blumberg et al., 2014). The message framing variables were manipulated into positive and negative, and subjects were

divided into these two groups, but a control group was not created. This means that a laboratory experiment, as well as measured attitudes and intentions using measurements adopted from Setiawan & Santosa (2020), was conducted. The variable measurement used a Likert scales, ranging between strongly disagree and strongly agree, as shown in Table 1.

Table 1
Measurement

Researchers		Measurement
Consumer's Attitude (Setiawan & Santosa, 2020)	Belief	1. I believe enrolling in a college would fulfill my desire. 2. I believe enrolling in college would make me proud. 3. I believe enrolling in college would give me satisfaction.
	Evaluation	1. Enrolling in this college would fulfill my wish 2. Enrolling in this college would make me proud 3. Enrolling in this college would make me satisfied.
Intention (Setiawan & Santosa, 2020)		1. I will try to enroll in a college. 2. I plan to enroll in college. 3. I intend to enroll on the campus. 4. I intend to explore this campus.

The study participants comprised 89 High and Vocational High School students selected using the randomization method. The randomization method minimizes or eliminates the influence of extraneous variables. It involves randomly selecting study subjects and their population and assigning them to certain conditions.

Experimental general design

This study conducted a laboratory experiment in an artificial or regulated environment (Sekaran & Bougie, 2016). It used a factorial design by simultaneously considering two or more variables (Aaker et al., 2004). The factorial design was: 2x1 between subjects when testing hypothesis

1. Participants were randomly assigned to two groups, each treated with advertisements with a positive message or negative message framing, denoted as follows:

1. EG1 R X1 O1

2. EG2 R X2 O2

A subject with an advertisement with a positive message cannot be shown a negative message framing because this would bias the sequence effect (Aaker & Kumar, 2004). Therefore, the study design is denoted as follows:

1. EG1 R (X1 O1)

2. EG2 R (X2 O2)

Internal validity

This study carried out control to maintain internal validity, where the observed effect was caused only by the experimental treatment. Variables other than independent variables affecting the dependent variable must be controlled to achieve internal validity. Student participants were controlled based on their biological, psychological, and emotional conditions. Additionally, this study controlled the independence of the participants' answers by adjusting the situation to ensure no communication between participants.

Manipulation design (treatment)

The treatment involved advertisements manipulated from the framing of positive and negative messages.

1. Ads with positive message framing (treatment/advertisement version 1/Ads A)
2. Ads with negative message framing (treatment/advertisement version 2/Ads B)

Stimulus design

The stimulus material design aimed to develop conditions where participants could provide an objective assessment. Advertisements were stimulated by dividing the message into positive and negative message frames.

The stimulus for framing messages used the "all programs are accredited, the curriculum is always updated, graduates are spread in various fields, use modern facilities and infrastructure, and affordable tuition fees" to frame positive messages. The negative message frame was "there are no unaccredited programs, the curriculum is not outdated, few graduates are unemployed, facilities and infrastructure are not outdated, and tuition fee is not expensive." Another stimulus material was a questionnaire used to determine consumers' feelings about advertisements using different message framing and their impact on intentions.

Manipulation Check

Message framing manipulation check used 30 participants. The validity test of the message framing manipulation showed that all indicators are valid, as shown in Table 2.

Table 2
Validity Test Result for Message Framing Manipulation Check

Indicator	Loading Factor
Belief1	0.920
Belief2	0.899
Belief3	0.878
Evaluation1	0.926
Evaluation2	0.901
Evaluation3	0.920

Source: Data processed (2021)

The manipulation check showed that all variables fulfilled the reliability, with a Cronbach's Alpha value of 0.923. Cronbach's Alpha must exceed 0.60, and the Corrected item-total Correlation should be more than 0.5 (Hair Jr. et al., 2019). This study used t-tests for experimental designs with categorical information on the independent variable and continuous information on the dependent variable (Creswell & Creswell, 2018). Statistical significance tests, such as the t-test, were used to compare the pooled mean of the baseline and treatment phases. The high and low averages were compared between positive and negative message framing.

The manipulation check showed that the average belief in advertisements with positive and negative message framing is 4.3333 and 3.1190, while the average evaluation value is 2.8750 and 1.9048, respectively, as shown in Table 3. This shows that the participants' perceived beliefs and evaluations of advertisements with positive message framing are greater than negative. The different t-tests on the average confidence showed that the calculated F is 11.567, with a probability of 0.002 < 0.05, a t value of 9.428, and a significance of 0.000. Therefore, there is a significant difference in belief in positive and negative message framing advertisements.

A t-test was performed to determine the statistical significance of the difference in the mean of the variables between the two groups. This is a conservative test because it treats a function, such as mean or difference (Rutström & Wilcox, 2009). The t-test on the average evaluation showed that the calculated F is 0.297, with a probability of 0.590 > 0.05, a t value of 10.327, and a significance of 0.000, as shown in Table 4. This implies a significant difference in evaluating advertisements using positive and negative message framing. Therefore, advertisements with positive and negative message framing are differentiable.

Table 3
Assessment of Framing Positive and Negative Messages

Ads	Belief's Average	Evaluation's Average
Positive Message Framing	4.3333	2.8750
Negative Message Framing	3.1190	1.9048

Source: Data processed (2021)

Table 4
T-test Different Test Results

	F	Sig.	T	Sig. (2-tailed)
Belief's Average Equal Variances Assumed	11.567	0.002	9.428	0.000
Evaluation's Average Equal Variances Assumed	0.297	0.590	10.327	0.000

Source: Data processed (2021)

The participants comprised High and Vocational High School students in Salatiga, Central Java. Table 5 describes the participants' profiles based on gender, age, and type of advertisement.

Table 5
Demographic Profile of the Sample

Description		Frequency	Percentage (%)
Gender	Male	30	33.7
	Female	59	66.3
Age	Above 19 y. o	6	6.7
	17-19 y. o	61	68.5
	15-17 y. o	22	24.7
Type of Ads	Ads A	48	53.9
	Ads B	41	46.1

Source: Data processed (2021)

Table 5 shows that 30 (33.7%) and 59 (66.3%) respondents were male and female, respectively. Based on age, Table 2 shows that 6 (6.7%) and 22 (24.7%) were 17 and between 15-17 years old, respectively. The results also show that 48 (53.9%) and 41 (46.1%) respondents received advertisements type A with a positive message frame and type B, respectively. The Attitude (Y1) and Intention (Y2) variables were used in data collection. Consumer's attitude variable description (Y1) was formed based on six indicator statements. Table 6 shows the participants' responses to consumer attitudes.

Table 6
Consumer's Attitude Variable Description

Indicator	Mean	Median	Mode	Minimum	Maximum
Y1.1	3.74	4	4	2	5
Y1.2	4.10	4	4	2	5
Y1.3	3.91	4	4	3	5
Y1.4	3.65	4	4	2	5
Y1.5	4.10	4	4	2	5
Y1.6	3.82	4	4	2	5
Average	3.89				

Source: Data processed (2021)

The consumer's attitude variable comprises six indicators with an average of 3.89, a mode of 4, and a median of 4. This shows that the respondents' responses agree on all indicators of the attitude variable, implying a good attitude. Furthermore, the intention variable was formed based on four statement indicators. Table 7 shows the participants' responses.

Table 7
Intention Variable Description

Indicator	Mean	Median	Mode	Minimum	Maximum
Y2.1	3.2584	3	3	2	5
Y2.2	3.4494	3	3	1	5
Y2.3	3.2247	3	3	1	5
Y2.4	3.3258	3	3	2	5
Average	3.3146				

Source: Data processed (2021)

The intention variable in Table 7 comprises four indicators with a mean, mode, and median of 3. This means that all indicators of the intention variable are neutral.

Validity was tested using Smart PLS. All indicators were declared valid because the T statistic exceeded 1.96. Table 8 shows the validity test results.

Table 8
Validity Test Result

Construct	T-Statistic	P-Value
Intention --> Intention1	42.893	0.000
Intention --> Intention2	3.869	0.000
Intention --> Intention3	39.627	0.000
Intention --> Intention4	29.519	0.000
Consumer Attitude --> Attitude1	9.944	0.000
Consumer Attitude --> Attitude2	17.476	0.000
Consumer Attitude --> Attitude3	28.266	0.000
Consumer Attitude --> Attitude4	13.373	0.000
Consumer Attitude --> Attitude5	12.808	0.000
Consumer Attitude --> Attitude6	24.250	0.000

Source: Data processed (2021)

Table 9 shows the reliability test results using Smart PLS.

Table 9
Reliability Test Result

Construct	T Statistic	P-Value
Intention	37.050	0.000
Consumer Attitude	58.840	0.000

Source: Data processed (2021)

The results in Table 9 show that all variables have a T statistic exceeding 1.96. This means that all variables are reliable.

4. Results and Discussion

Result

Table 10
Hypothesis Test Result

Hypotheses	T Statistic	P-Value	Decision
H1: There are differences in consumers' attitudes toward advertising using positive and negative message framing.	3.8958	.59313	Not Supported
H2: Consumer attitudes positively affect the intention	3.8780	.64767	Supported

Source: Data processed (2021)

The results of hypothesis testing using Smart PLS showed that hypothesis 1 was rejected, while hypothesis 2 was accepted. The experimental test showed a significant difference in belief in positive and negative message framing advertisements.

Discussion

This study showed that message frames with differences in positive or negative messages create different attitudes and behaviors in recipients. The experimental test showed that positive messages influence students' attitudes and intentions in selecting a campus. This supports Cesario et al., (2013) and Bartels et al., (2010), which found that someone who has experienced a sense of fit elicits better responses to the article. According to prospect theory, people avoid risk when faced with a decision's potential benefits but are more willing to take risks when faced with the potential costs (Tversky & Kahneman, 1981).

Hypothesis tests showed no difference in consumer attitudes towards university advertisements using positive and negative message framing. This finding is inconsistent with most opinions in prospect theory that form the basis of message framing theory. The theory stated that individuals respond differently to essentially equal messages, depending on how the message is framed (Tversky & Kahneman, 1981; Fatmawati et al., 2018). Levin & Gaeth (1998) found no framing effect in goal framing, and energy-saving behavior could be categorized in goal framing. Furthermore, Fatmawati et al., (2018) found no difference in attitudes between subjects receiving positive and negative message framing in promoting electricity-saving behavior among young adults.

The participants in this study have the same attitude towards advertising by framing positive and negative messages. Prospective students require high involvement in choosing a college by focusing on the information center. However, the details are not affected by the positive and negative message framing used. In high-involvement products, consumers look for more detailed information on the products offered. Decision-making for high-involvement products also follows a rational process that requires the buyer's time and effort (Santandreu & Shurden, 2017).

Ardiansyah & Sarwoko (2020) showed that consumers are rational in the case of high involvement products. They require more time and effort to evaluate specific product performances and characteristics. Nayeem & Casidy (2013) found that some buyers spend a substantial amount of time researching cars, interacting with dealers, and consulting with family or friends, even when they are conservative in their brand selection. This is because they want to make the perfect choice regarding high-involvement purchases, such as automobiles.

The second hypothesis stated that Consumer Attitude positively affects Intention. The results showed a positive and significant influence of Consumer Attitudes on Intention.

This supports the second hypothesis, meaning that a better attitude increases intention. The finding is consistent with previous studies, which showed that attitude positively and significantly affects purchase intention.

According to Teoh & Noor (2015), attitude significantly affected the purchase intention of hybrid cars in Malaysia. Moreover, there was a positive influence on attitude toward behavioral intention to adopt m-banking (Adrinanto, 2016). Putra et al., (2022) showed that attitude positively affected the intention to use freemium-paid versions of online applications and games. Also, consumer attitude toward online shopping was positively affected by their intention to purchase online (Tran & Nguyen, 2022). Abdullah & Yu (2019), Jaiyeoba et al. (2015), and Ha & Tam (2015) examined counterfeiting luxurious fashion products among Yemeni Students in China, Batswana College Students, and Vietnam respectively. The results showed that attitude positively and significantly affects purchase intention. Additionally, Pérez-Villarreal et al., (2020) confirmed the effect of attitude on purchase intentions at Fast Food Hamburger Restaurants.

5. Conclusion

An experimental approach is used to demonstrate the usefulness of the framework in predicting the framing effect, and the results are further tested using a statistical approach to the effect-testing that is applied in this situation. Hypothesis tests showed no difference in consumer attitudes towards university advertisements using positive and negative message framing. Consumers have the same attitude towards advertising by positive and negative message framing. The choice of a college for prospective students requires high involvement. Although prospective students focus on the information center, the positive and negative framing does not affect the details. Furthermore, student attitudes positively affect intention in applying to the targeted university. This shows that a better attitude affects a person's intention.

This study has several limitations; first, the experimental laboratory design used may cause weak naturalness. Although the design could achieve high internal validity, it should be complemented by future studies with a survey design. Second, the participants comprising High and Vocational High School students preferred certain universities, making them less than optimal in participating in the experiment. For future research, survey methods can be developed and also by adding a moderating variable, motivation, or level of consumer knowledge (Soliha & Purwanto, 2012; Soliha, et.al., 2014).

6. Author Contribution

Euis Soliha as the main researcher contributes for draft writing and revising.

Ajeng Aquinia contributes for final writing for submitting and revising.

Suzy Widyasari as a researcher assistant team.

Kristina Anindita Hayunintyas as a researcher assistant team.

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8. Conflict of Interest

The authors declare no conflict of interest.

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