

SUBLIMINAL INFLUENCE ON CONSUMER PURCHASE INTENTIONS- AN EXPERIMENTAL ANALYSIS ON CONSUMER PRODUCT (Shopping Products)

¹Dr. Sunayana Shukla

*¹Faculty of Commerce and Management, Kalinga University, Naya Raipur, Chattisgarh, India,
sunayana.shukla@kalingauniversity.ac.in*

Abstract

Consumers are pelted with thousands of advertisements per day, and it is in their best interest to understand the effect of those advertisements. The modern-day idea of "subliminal advertising" works in conformity with the concept of affecting consumer behavior with the help of unconscious hidden persuaders in advertisements. The study aims at finding the impact of subliminal advertising on consumer purchase intentions. A model was adopted and tested to determine the relationship between variables of the study (emotions, perception, and purchase intentions). The primary data comprises of college going students in the undivided district of Sambalpur. Paired t-test was used to test the hypotheses. The results of the study reveal that subliminal advertising significantly affects consumer emotions and perception. However, the effect of subliminal advertising on consumer purchase intentions is very close to being significant.

Keywords: Subliminal Advertising, Emotions, Perception, Purchase Intentions, Paired t-test.

INTRODUCTION

The effectiveness of subliminal advertising on consumer behavior involves a lot of ambiguity and is still under scrutiny (Shaqeel Ahmad Sofi et al., 2018). Various researchers have claimed the effectiveness of subliminal advertising on different aspects of consumer behavior; but the irony that exists here is that an almost equal number of researchers have discarded those claims (Tara Santora, 2020). The purpose of this chapter is to provide clarity on this never-ending tug of war between researchers and to find out whether or not subliminal advertising influences consumer behavior. This study aims to measure the difference in 'Purchase Intentions' of consumers after presenting subliminal stimuli via advertisements. The study has adopted an experimental research design to accomplish its objectives. The experiment was conducted on two categories of

consumer products viz. Shopping & Specialty products. Due to this reason, the statistical analyses under this chapter are categorized into two parts; the first part comprises analyses on shopping products whereas the second part on specialty products. The participants under the experiment were young college-going students, all of them studying in a coaching academy in the district of Jharsuguda. Based upon previous studies, a relationship model was developed by the researcher, to measure the purchase intentions of the participants under the experiment. The relationship between the variables of the model was subjected to model fitness and path analysis. After qualifying through the Structural Equation Model test, the hypotheses under the experiment were statistically tested and results were reported. Based on those results, inferences were drawn and interpretations were made by the researcher. Finally, this chapter also discusses

the limitations associated with this study and provides valuable suggestions for future research.

OBJECTIVES

1. To compare the “Emotions” of consumers before and after the presentation of subliminal stimuli
2. To compare the “Perception” of consumers before and after the presentation of subliminal stimuli
3. To compare the “Purchase Intentions” of consumers before and after the presentation of subliminal stimuli

EFFECTIVENESS OF SUBLIMINAL ADVERTISING ON CONSUMER BEHAVIOR: THE NEVER-ENDING DILEMMA

“Subliminal Advertising is a technique of exposing consumers to product pictures, brand names, or other marketing stimuli without the consumers having conscious awareness. Once exposed to a subliminal marketing stimulus, the consumer is believed to decode the information and act upon it without being to acknowledge a communication source.” (Charles Trappey, 1996)

Regardless of whether or not subliminal advertising works, the presence of subliminal messages in advertisements has enough shreds of evidence. On one hand, there are thousands of claims in support of the influence of subliminal advertising on consumer behavior; whereas on the other hand, there is another school of researchers that have falsified these claims. One school of thought strongly believes in the effectiveness of subliminal advertising on consumer behavior while the other stands in strong opposition to the belief that subliminal messages in advertisements affect consumer behavior in any way. Ironically, both groups have strong shreds of evidence to prove their point. As a researcher, it is important to objectively analyze the claims from both schools of thought.

LITERATURE REVIEW

There is ‘n’ number of researchers who strongly stand in support of the notion that subliminal advertising influences consumer behavior in many different ways. The study aims at exploring those claims and objectively analyzing the results of those studies. One of the most recent studies on the effectiveness of subliminal advertising on consumer behavior was done by Liwei Hsu Yen & Jung Chen in the year 2020 (November). The study aimed at determining the influence of subliminal advertising on consumer’s choices and preferences. An experiment was conducted under the study with sixteen participants who were asked to rate their preferences on hotel rooms. The participants completed two rounds of the experiment, one without a subliminal stimulus and the other with “a smiling face emoticon” as a subliminal stimulus. Chi-squared test of homogeneity, paired sample t-test, and Bayes factor were performed to test the hypothesis. The results of the study showed that consumer’s choice of hotel room selection was highly influenced by the subliminal stimulus. Another noteworthy contribution in the field of subliminal advertising was done by Strahan, Spencer, and Zanna, in the year 2002. The study was aimed at assessing the influence of subliminal priming on goal-related cognition. The study underwent an experiment with “soft-drink” as the primed product and “thirst” as the goal/motivation. The results of the study showed that for the thirsty participants; subliminal priming did persuade them to choose the product. However, for those who were not thirsty, i.e., were not motivated towards the product; subliminal priming did not persuade them to choose the product. This study made a very major revelation in the field of subliminal advertising by putting forth the idea that subliminal priming only works if there is a goal/motivation towards the primed product amongst the consumers.

When there is no goal/motivation towards the primed product, subliminal advertising does not have any effect on consumer behavior. Hence, “goal” and “motivation” play a crucial role in determining the effectiveness of subliminal advertising. For example, a person who does

not own a dog would not buy dog food even if he is exposed to subliminal advertisements. This means that there must be a goal as well as a motivation to pursue the goal towards the product being subliminally primed. This is a prerequisite in determining the effectiveness of subliminal advertising. A similar was done by Jean- Baptiste Legal, et l., 2011 to determine the effectiveness of subliminal advertising on consumer choice, provided that there was a goal towards the primed product. The study conducted an experiment where the participants (who had goal-related cognitions towards tap water consumption) were divided into two groups. One group was not exposed to any subliminal messages while the other group was primed with subliminal messages related to trust. This means that the goal of the consumers was subliminally linked to “trust”. Two-way ANCOVA was used to test the statistical significance of the data. The results of the study showed that the participants whose goals were subliminally primed to trust were positively influenced by the product and also showed better evaluation of the product. On the other hand, the participants who were not subliminally exposed; were relatively less influenced by the product. The results of the study highlight two major aspects in the field of subliminal advertising. Firstly, there has to be a goal/motivation towards the product, amongst the consumers, for a subliminal advertisement to work. Secondly, “trust” plays an important role in advertising and hence it must be subliminally primed in the minds of the consumers to reap maximum benefits from advertisements. Hence, positive subliminal messages, when directed towards pre-determined goals, help the consumers in making better choices and evaluations.

Based upon the results of the above-mentioned studies, the researcher hypothesized:

H2a: There is a significant difference in the “Emotions” of the participants after the presentation of subliminal stimuli.

H3a: There is a significant difference in the “Perception” of the participants after the presentation of subliminal stimuli.

H4.1a: There is a significant difference in the “Purchase Intention” of the participants after the presentation of subliminal stimuli.

Although a surprising number of researchers have proved subliminal advertising as an effective tool to influence the behavior of consumers, there are enough shreds of evidence that stand against those claims.

“Subliminal advertising is perceived to be a pretty potent form of influence, but there is not much on which to base that conclusion.” (Ian Zimmerman, 1992). The objective of this study is to find out whether or not subliminal advertising influences consumer purchase intentions. Unbiased scrutiny of all the previous demonstrations is done by the researcher before arriving at any solid conclusion. In the previous section, data standing in favor of the notion that subliminal advertising influences consumer behavior has been discussed. In the following section, all the studies which do not subscribe to the idea that subliminal advertising influences consumer behavior have been discussed in detail. Following are a few of the most renowned research works that stand against the notion that subliminal advertising is capable of influencing the behavior of people.

Another crucial contribution in determining whether or not subliminal advertisements work was made by researcher Andreas Reiner in the year 2017.

The research aimed at analyzing and reviewing the results of the group of scholars who stand in favor of the idea that subliminal advertising influences consumer behavior and also the group of scholars who stand against this idea. Thorough scrutiny was done on the claims of the previous studies. The study, after analyzing all the aspects of subliminal advertising, stated that the effectiveness of subliminal advertising was not all-pervasive. The effectiveness or non-effectiveness of subliminal advertising is subjective and dependent upon various factors. Out of all the other factors discussed in previous demonstrations; there is one crucial aspect that has been missed out in determining the effectiveness of subliminal advertising i.e., the receptivity of the human mind.

A.IIse, et al.,2020 aimed at finding out the effect of unseen food images (subliminal stimuli) on the behavior of hungry viewers. The experiment was completed in two sessions: one just after the lunch break, which was the non-craving state, and the other after twelve hours period of fasting which was the craving state. Food and clothing-related subliminal cues were shown to the participants in both sessions. The results of the experiment showed no effect of subliminal messages on the participants. The changes which were recorded in the behavior of the participants turned out to be because they were hungry and not because they were exposed to a subliminal stimulus. The study proved that a change in the behavior of the participants is a result of the need and not the subliminal stimuli.

Based upon the results of the above-mentioned studies, the researcher hypothesized:

H2o: There is no significant difference in the “Emotions” of the participants after the presentation of subliminal stimuli.

H3o: There is no significant difference in the “Perception” of the participants after the presentation of subliminal stimuli.

H4.1a: There is a significant difference in the “Purchase Intention” of the participants after the presentation of subliminal stimuli.

METHODOLOGY

Product under the experiment

In the present study, one of the few categories of consumer products was taken into consideration, viz., Shopping. The reason behind choosing these two categories of consumer products was- the absence of a renowned habitual brand. Subliminal advertisements have been shown to show their maximum effects when the primed item is not a renowned and habitual brand. In the absence of a habitual brand, the primed advertisement is more consumed. (“The working and limits of subliminal advertising”, ThijsVerwijmeren, 2014).

To eliminate the presence of habitual renowned brands, local brand were chosen for the experiment.. Although, most of the researches in the past were done on renowned Convenience products such as toothpaste, soaps, soft drinks, etc., (Soomro & YasirAli 2018); using a local brand with Shopping Product in a subliminal advertisement would add novelty in the field of Subliminal Marketing (Strahan, Spencer, and Zanna, 2002). As a representative for Shopping Products, Furniture items &Home Appliances were chosen.

Advertisement clips

To achieve the purpose of the study, a freelance advertising expert, running a local advertising business, was contacted. The freelance advertising agency runs under the brand name ‘AdverTV’, which prepares advertisements for local stores and showrooms in the district of Jharsuguda, Sambalpur & Rourkela. Out of various local Consumer products advertised by AdverTv, the following local brand’s advertisements was chosen for the experiment.

“Goel Furnitures”, selling Shopping products such as- Furniture and Home Appliances

The researcher asked AdverTv to create a replica of the advertisement clip by embedding subliminal stimuli in them. The researcher purchased two copies of the one with subliminal stimuli and the other without any subliminal stimulus.

Telephonic consent from the owners of the stores was taken by the researcher. The store owners gave their consent to use those advertisements for experimenting with this study.

Subliminal Stimuli

Both auditory and visual subliminal stimuli were used under the experiment. The auditory subliminal stimulus chosen under the experiment was a piece of customized relaxing music masked with positive subliminal affirmations. The researcher approached an expert subliminal maker, running a renowned Youtube channel under the name “HypnoDaddy”, with approximately 1.5 Lacs

subscribers

(https://www.youtube.com/channel/UCIpBFvLxW5x8W7qVgQJae_). The channel is specifically dedicated to subliminal music. The expert is a professional subliminal expert and creates customized subliminal music for his clients addressing a variety of issues. The expert was contacted via e-mail and was asked to prepare a piece of customized subliminal music with hidden auditory positive affirmations such as “I love the product”, “The product is amazing”, “The store looks wonderful”, “Buy it” etc. Positive subliminal affirmations are a great way to influence the subconscious mind of an individual for a changed behavior (Karam, et al. 2017).

Positive subliminal affirmations have proven to increase positivity and likeliness towards products (Sandoval et al., 2019). These subliminal messages are masked behind the music and are not audible to the ears. However, when an individual listens to relaxing subliminal music, the hidden subliminal messages penetrate directly into the subconscious mind of the listener. The affirmations, over time, change the behavior of an individual (Spangenberg et al., 1992). As explained by the subliminal expert, virtually known as “HypnoDaddy”, a subliminal message can sink into the subconscious mind of an individual either immediately or over a certain period (3-21 days).

The visual subliminal stimulus used under the study was a smiling face “emoticon”. Emoticon refers to the meta communicative visuals (Maganari and Dimare, 2017) represented by human facial expressions, also known as an Emoji (Rodrigues et al., 2018). Emojis can solve the problem of insufficient non-verbal cues (Wange et al., 2014). In recent years, graphical emojis have become a popular tool in advertisements (Das et al., 2019). Li et al. found that when service providers use emojis on online consumer reviews (OCR), of online travel agencies (OTA), customers tend to appreciate the service more. Positive emojis can generate a positive impact on target consumers and increase their willingness to purchase hedonic products (Das et al., 2019).

Subliminal advertisement

The researcher approached “AdverTv” to create two sets of similar advertisements for the product, one without any subliminal stimulus and another with subliminal stimuli. The auditory subliminal stimulus was masked beneath the audio of the advertisement whereas the visual stimulus was flashed 5 times in between the advertisements for a fraction of 0.03 milliseconds (Liwei Hsu, Yen-Jung Chen, 2020). The flashes were not visible to the naked eye of the viewer unless the viewer was aware of the presence of any such cue.

Research Instrument

The research instrument used under the experiment was closed-ended questionnaires. Based on prior studies, a five-point Likert scale was chosen as the scale for the questionnaires (Sofi et al., 2018). The source from where most of the questions and constructs in the questionnaire were adopted, was “The effect of subliminal message in print advertisements” by Jamie Lynne Wilfong in the year 2002

Sample Participants

The sample participants under the experiment were students, all above 18 years of age. To accomplish more precise results and to eliminate the existence of other control variables, all the participants chosen, were college-going Commerce students. Non-probability Judgmental sampling was used to choose the sample. All the participants were in the 3rd year of their Graduation and hence their ages ranged between 21-22 years. There were both male and female participants, all of them studying in the same coaching institute, in the district of Jharsuguda. The sample size was calculated as 45. G Power 3.1 software was used to find out the appropriate sample size for the experiment. As the entire experimental procedure was meant to continue for 9 days in a row (barring Sunday), the probability that all 45 participants would show up every single day was quite low. Therefore, the researcher oversampled the participants by taking 60 students as subjects to the experiment.

Step-by-step experimental procedure-

Before the commencement of the experiment, the consent of the participants was taken by the owner of the academy. The participants were not informed about the hidden stimuli

embedded in advertisements. The experiment took place for 9 days, commencing from 05/04/2021 till 13/04/2021. The initial experiment was conducted on 60 participants. The step-by-step experimental procedure is described in Table-1

Table-1 *Step-by-step experimental procedure*

Date	Experiment Day no.	Procedure	Advertisement With/without subliminal stimuli
05/04/20	Day-1	The participants were shown the advertisement. The advertisements shown to the participants on Day 1 did not contain any subliminal stimulus. They were non-manipulated advertisements. After the advertisement, the participants were asked to fill up questionnaires in response to the viewed advertisement. The responses of the participants were collected by the researcher.	Advertisement without subliminal stimuli
06/04/20	Day-2	The same participants were shown the Advertisement again, but the advertisements shown on Day 2 were the	
		manipulated advertisements with hidden subliminal stimuli. The participants were unaware that they were being presented with a different advertisement with hidden messages. They were told that the advertisements were the same as the previous day.	Advertisement with subliminal stimuli
07/04/20	Day-3	The same procedure carried out on Day-2 was repeated.	With subliminal stimuli
08/04/20	Day-4	The same procedure carried out on Day-2 & Day-3 was repeated	With subliminal stimuli
09/04/20	Day-5	The same procedure carried out on Day-2, Day-3 & Day-4 was repeated	With subliminal stimuli
10/04/20	Day-6	The same procedure carried out on Day-2, Day-3, Day4 & Day-5 was repeated	With subliminal stimuli
11/04/20	Day-7	Sunday- No experiment done	-
12/04/20	Day-8	The same procedure carried out on Day-2, Day-3, Day-4, Day-5 & Day-6 was repeated	With subliminal stimuli
13/04/20	Day-9	The participants were requested to fill the same questionnaires again on Day-9 based on the advertisement that was being shown to them for the past 7 days. The researcher collected the Responses of the participants.	-

To find out the difference in the Purchase Intentions of participants before and after the presentation of subliminal stimuli, the responses of Day-1 (before exposure to subliminal stimuli) were compared with the responses of Day-9 (after 7 days of repeated exposure to subliminal stimuli).

However, to measure the Purchase Intentions of the participants a model, based on prior researches, was developed.

DATA ANALYSES AND RESULTS

Demographic details of the participants

Out of 60 participants, 50 participants were marked present throughout the experiment, i.e., for the entire 9 days. The rest 10 participants remained absent one day or the other. The responses of the 10 inconsistent participants were discarded by the researcher. The responses of 50 participants were entered into an excel spreadsheet by the researcher. Missing frequencies, improper coding, and unengaged responses were checked and modified. Out of the remaining 50 responses, 45 responses were chosen by the researcher using purposive sampling. Out of the 45 respondents, twenty-four were male participants, whereas the remaining twenty-one were female. The age of the participants ranged between 21 years- 22 years. Thirty-nine out of the forty-five participants were 21 years old, and the remaining six were 22 years old. All the participants were in their third year of college and were studying Bachelor of Commerce. Each participant was a student of "Vidya Gurukul", a coaching institute running in the district of Jharsuguda. Finally, all the participants were residents of Jharsuguda. The demographic details of the participants are mentioned in Table-2

Table 2 *Demographic details of the participants*

Items	Percentage
GENDER	
Male- Female	53.33%
	46.67%

AGE	
21 years	86.66%
22 years	13.33%
EDUCATIONAL QUALIFICATION	100%
Bachelor of Commerce- 3 rd Year	

Relationship Model

The primary purpose of the experiment was to find out the effectiveness of subliminal advertising on the Purchase Intentions of consumers. However, according to Rosanne Weber, 2010, it is advisable not to measure the Purchase Intent of consumers directly; as purchase intention builds as a by-product of Consumer Attitude. Rone Bredahl 2001 also studied the determinants of consumer purchase intentions, and the results of the study revealed that Consume attitude has a direct relation with Consumer purchase intention. Ghada W El-tazy & Hesham O Dinana, 2018 revealed that humor and hidden meanings in advertisements have a positive effect on consumer attitude which has a positive strong effect on the probability to purchase yet the consumer attitude effect on actual purchase. Morwitz (2012,) in his study revealed that purchase intention in consumers is dependent upon the behavior and attitude of the consumers. Based on these prior studies, the researcher hypothesized:

H2.2: Attitude towards subliminal advertisement has a significant relationship with the intention to purchase

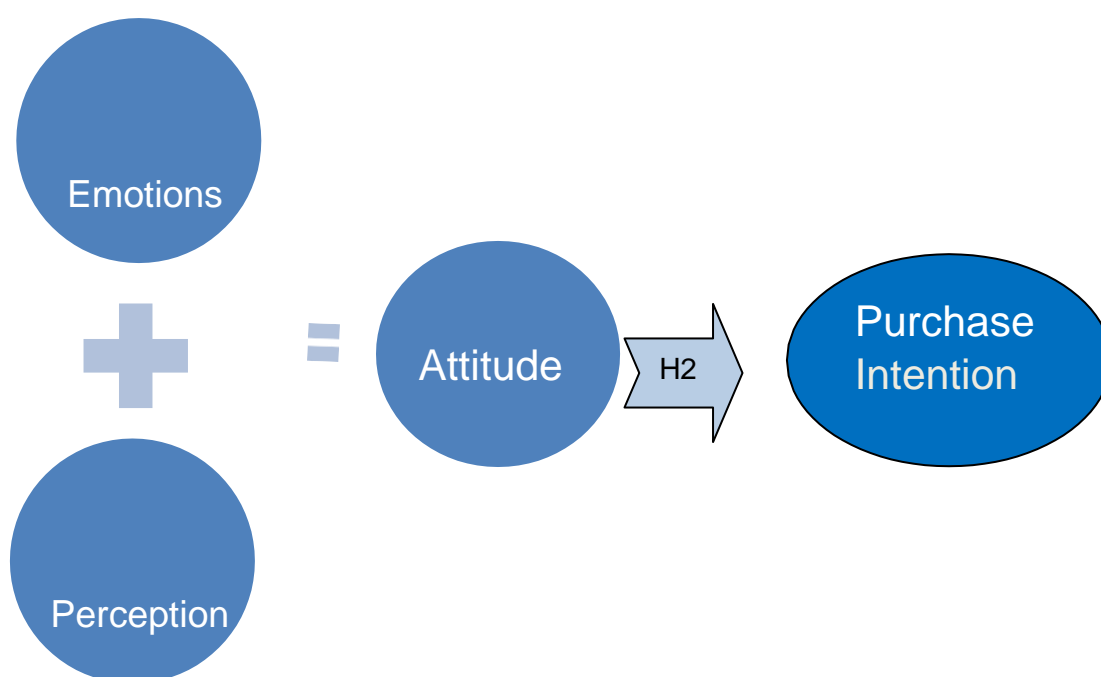
As determinants of Consumer Attitude, the study has used 'Perception' and 'Emotions'. Several determinants play a key role in determining the attitude of the consumers. However, in the context of subliminal advertising, two major determinants frame the attitude of the consumers towards a product viz., "emotions triggered by subliminal advertisement" & "perception of the consumers towards the advertisement" (Yasir Ali Soomro, 2018). Dave Lakhani, in the year 2018, through his book "Subliminal Persuasion: Influence and Marketing Secrets They don't want you to know" elaborated the idea of subliminal advertising and how subliminal messages are used in advertisements. Lakhani explained how subliminal messages subconsciously invoke certain emotions and

how those emotions persuade consumers to make their decisions.

A yet another study by Shaqil Sofi, 2018 proved that ‘emotions’ and ‘perception’ play key roles in determining the attitude of the consumers towards subliminal advertisements. In the subliminal context, how a consumer perceives the subliminal advertisement and what emotions the consumer experiences, play a major role in determining the attitude of a consumer towards the advertisement (Liwei Hsu et al., 2019).

Based on the above shreds of evidence, the researcher concluded that “perception towards subliminal advertisement” and “emotions triggered by the subliminal stimuli”, help in forming the “attitude” of the consumers towards the advertisement. The attitude thus formed, creates a direct relationship with the Purchase Intentions of consumers. This relation between variables is validated by the researcher through Confirmatory Factor Analysis (CFA) & Path Analysis, together known as Structural Equation Model (SEM). Figure-1 shows the relationship between the variables under the study.

Figure-1



Results

Prior to performing the paired t-test, the researcher checked whether the differences between pairs were normally distributed. The mean responses before and after the presentation of subliminal stimuli were individually calculated and the normality of the mean differences was checked using one-sample KS test (Kolmogorov- Smirnov test) and Shapiro-Wilk test. The results of the KS test & Shapiro-Wilk test showed a p-value greater than 0.05, which means that the dataset was normally distributed (Stephanie,2016).

Table-3 reports the normality results of the mean difference.

Tests of Normality (Furniture & Home Appliances)

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Difference	.120	13	.200*	.956	13	.691

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The difference in “Emotions”, “Perception” & “Purchase Intentions” of the participants, before and after presenting subliminal stimuli was individually tested to get detailed results. Firstly, a paired- sample test was performed to test whether there is a significant difference in the “Emotions” of the participants before presenting the stimuli and after presenting the stimuli. Secondly, a paired sample t-test was performed to test any difference in the “Perception” of people, before and after presenting subliminal stimuli.

Finally, the “Purchase Intentions” of the participants, before and after presenting subliminal stimuli was compared using a paired sample t-test.

The results of the experiment revealed a significant difference in the “Emotions” & “Perception” of the people after being exposed

Table-5 Paired t-test results of difference in ‘Emotions’ after presenting subliminal stimuli

to subliminal stimuli (Table-5 & Table-7). Prior to performing paired t-tests, the mean & standard deviation and for each of the factors were calculated (Emotions-Table-4, Perception- Table-6 & Purchase Intention-Table-8). The paired t-test p-value for “Emotions” and “Perception” was calculated as 0.009 ($p < 0.05$) & 0.013 ($p < 0.05$) respectively. P-value greater than 0.05 rejects the null hypothesis at a 5% level of significance (Yusop, Johari, 2015). Table-5 & Table-7 show the paired t-test results reporting significant differences in emotions & perception of the participants after being exposed to subliminal stimuli.

Table-4 Mean & Standard Deviation- Emotions

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Before	2.40660	5	.459071	.205303
After	3.07560	5	.385569	.172432

Paired Samples Test

				Pair 1
				BEFORE-AFTER
Paired Differences	Mean			-.669000
	Std. Deviation			.319290
	Std. Error Mean			.142791
	95% Interval Difference	Confidence of the	Lower Upper	-1.065451 -.272549
T				-4.685
Df				4
Sig. (2-tailed)				.009

Table-6 Mean & Standard Deviation- Perception

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Before	3.31100	3	.290326	.167620

Pair 1				
After	3.81467	3	.289769	.167298

Table-7 Paired t-test results of difference in 'Perception' after presenting subliminal stimuli- Furniture & Home Appliances

Paired Samples Test

				Pair 1
				BEFORE-AFTER
Mean				-.503667
Std. Deviation				.100201
Paired Differences Std. Error Mean				.057851
95% Interval Difference	Confidence of the	Lower		-.752581
		Upper		-.254752
T				-8.706
Df				2
Sig. (2-tailed)				.013

Table-5 & Table-7 reject the null hypothesis at a 5% significance level. However, the "Purchase Intentions" of the participants did not show a significant difference after presenting subliminal stimuli. The paired t-test performed on the "Purchase Intentions" of the participants reported a p-value of 0.067 which is greater than 0.05. This means that the null hypothesis is accepted at a 5% level of significance. However, it can be noticed that the null hypothesis, at a 5% level of significance, is accepted with a very slight margin (0.067~ 0.05). Table-9 shows the results of paired t-test which was performed to check whether there is a significant difference in the purchase intentions of participants after being exposed to subliminal stimuli.

Table-8 Mean & Standard Deviation- Purchase Intention

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Before	3.16650	2	.078489	.055500
After	4.01150	2	.204354	.144500

Table-9 Paired t-test results of difference in 'Purchase Intention' after presenting subliminal stimuli- Furniture & Home Appliances

Paired Samples Test

		Pair 1
		BEFORE-AFTER
Mean		-.845000
Std. Deviation		.125865
Paired Differences Std. Error Mean		.089000
95% Confidence Interval of the Difference	Lower Upper	-1.975852 .285852
T		-9.494
Df		1
Sig. (2-tailed)		.067

The results from Table-9 provide evidence in favor of the null hypothesis. This means that there is no significant difference in the "Purchase Intentions" of the participants after being exposed to subliminal stimuli.

CONCLUSION & DISCUSSION

The influence of subliminal advertisements on consumer behavior has always been a controversial issue. There are robust pieces of evidence in support of the premise that subliminal advertising influences consumer behavior, however, the opposite of this premise has also been empirically proved by many researchers. The main purpose of this study was to test which one of the two premises is valid. To measure the 'Purchase Intentions' of the consumers, a model was adopted. The model described the relation between the 'Attitude' of consumers towards subliminal advertisements and their 'Purchase Intentions'. The results showed that there is a strong relationship between the two factors. Therefore, it would be apt to say that if a subliminal stimulus can alter the attitude of a consumer, it will have a direct impact on his/her 'Purchase

Intentions'. A challenge faced by the researcher here was to quantitatively measure the attitude of people. To solve this issue, the researcher relied on previous studies and concluded that in the context of subliminal advertising- the intensity of 'Emotions' triggered by the subliminal advertisement, factors like 'Perception' of the consumers towards the subliminal advertisement and 'Likeability' towards the product advertised, build the 'Attitude' of the consumers towards subliminal advertising. This means that 'Emotions', 'Perception' & 'Likeability' build the 'Attitude' of a consumer and the 'Attitude' of the consumer determines his/her 'Purchase Intentions'. The researcher relied on this model and went ahead with the study. However, it was found that this model did not fit appropriately in the area under this study. Therefore, the researcher had to modify the model and the 'Likeability' factor was removed from the model. This means that according to the modified model, 'Emotions' and 'Perception' together build 'Attitude' and 'Attitude' in turn determines the 'Purchase Intentions' of consumers. This modified model was tested for model fitness and the model was found to be fit

in the area concerned. There was a high positive correlation between emotions & perception of the participants, which together determined their “attitude”, and there was also a significant relationship between “attitude” and “purchase intentions” of the participants under the study.

To enhance the robustness of the study, the researcher individually compared “emotions”, “perception” as well as “purchase intentions” of the participants, based on the relationship explained. The results of the study showed a significant difference in the intensity of ‘emotions’ within the participants after being exposed to subliminal stimuli. This means that subliminal stimuli do influence the emotions of people. A subliminal stimulus, when repeated over a while, can alter the intensity with which a certain emotion (happy in this case) is experienced by an individual. The results of the study observed a change in the “perception” of the participants towards the advertisement, after repeatedly being exposed to subliminal stimuli. This means that a subliminal stimulus also creates a significant change in the way an individual perceives an advertisement. However, the “purchase intentions” of the participants did not show a significant difference. The point to be noted here is that- a significant difference in the emotions and perception of the participants signifies a significant difference in the attitude of the participants, and it has already been established by the researcher that attitude has a direct relationship with “purchase intentions”.

The reason that ‘Purchase Intentions’ did not show a significant difference, could be the “period” of the experiment. To completely sink into the subconscious minds of the consumers, subliminal messages can take up to 7 days to 6 months (Alison Silver, 2020). This was one of the limitations of this study as the researcher couldn't continue the experiment for an extended period due to the current pandemic situation. Also, in both the categories of consumer products, the ‘Purchase Intentions’ of the participants showed a difference that was very close to the accepted cutoff of 0.05 (0.067~0.05,).

The reason why few researchers have denied the effectiveness of subliminal advertisements on consumer behavior could be the fact that a lot of those researchers did not consider the ‘time’ factor associated with the effectiveness of subliminal messages (Liwei Hsu, Yen-Jung Chen, 2020). Also, the effectiveness of subliminal messages on people is a lot dependant on the ‘receptivity’ of people (Zanot et al., 1983). Different people have different levels of receptivity. Therefore, different experiments have shown different results based upon how receptive the respondents/ participants under the experiment were. Receptivity levels according to Evans, Slegers & Mlakar, 2020; differ from person to person as it is dependent upon various other psychological factors. This could be one of the reasons due to which there is a never-ending controversy associated with the effectiveness of subliminal advertising on consumer behavior. Nevertheless, the real matter of concern is not the effectiveness of subliminal advertising on consumer behavior; but its misuse by the advertisers. Regardless of whether subliminal advertising works or not, it is the right of the consumers to be aware of every information that they are being exposed to.

Reference

- [1] Brown, Steven P., and Douglas M. Stayman. (1992). "Antecedents and Consequences of Attitude Toward an Ad: A Meta-Analysis." *Journal of Consumer Research*. 19 (June). 34-51.
- [2] Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of applied social psychology*, 32(4), 665-683.
- [3] Aminrad, Z., Zakariya, S. Z. B. S., Hadi, A. S., & Sakari, M. (2013). Relationship between awareness, knowledge, and attitudes towards environmental education among secondary school students in Malaysia. *World Applied Sciences Journal*, 22(9), 1326-1333.
- [4] Aylesworth, A. B., & Goodstein, R. C. (1999). Effect of Archetypal Embeds on Feelings: An Indirect Route to Affecting

- Attitudes. *Journal of Advertising*, 28 (3), 73-81.
- [5] Bamberger, B. (2013). Possibilities and Limitations of Subliminal Messages in Advertisements.
- [6] University of Groningen. Subliminal Messages in Advertising.
- [7] Broyles, S. J. (2006). Subliminal Advertising and the Perpetual Popularity of Playing to People's Paranoia. *The Journal of Consumer Affairs*, 40 (2), 392-406.
- [8] The Fourth Scientific Conference on Economics and Managerial Studies Volume 3 17-20 April 2018 1842
- [9] Byrne, B.M., 2001. Structural equation modeling with AMOS: Basic concepts, application, and programming. Hillsdale, NJ: Lawrence Erlbaum
- [10] Csorba, M. (2011). Mediterranean Center of Social and Educational Research. *Mediterranean Journal of Social Sciences*, 2(4), 203-211.
- [11] De Pretto, L., Acreman, S., Ashfold, M. J., Mohankumar, S. K., & Campos-Arceiz, A. (2015). The link between knowledge, attitudes, and practices in relation to atmospheric haze pollution in Peninsular Malaysia. *PloS one*, 10(12), e0143655.
- [12] Hair, J. F., Black, W. C., Babin, B. J., and Anderson, R. E., 2010. *Multivariate data analysis(7thed.)*. Upper Saddle River: NJ: Prentice-Hall.
- [13] Hussin, H., Hamdar, B., Farha, G., Boudiab, R., & Beyruti, N. (2013). Subliminal Marketing: An Exploratory Research in Lebanon. *Journal of Business & Management (COES&RJ-JBM)*, 1 (3), 2306-8043.
- [14] Iftekhar, H., Ayub, A., Razzaq, A., & Aslam, M. S. (2013). Detrimental Effects of Marketing Practices on Consumers' Buying Behaviors. *Business Management Dynamics*, 2(10), 01-05.
- [15] Kirdar, Y. (2012). Mysticism in Subliminal Advertising. *Journal Academic Marketing Mysticism Online (JAMMO)*, 4(1), 222-239.
- [16] Klimov, B. (2003). There! Did you see it? Care! They do see you. . . Subliminal messages in advertisement, movie making and cartoons in a 'not so-innocent world'. Profit driven or 'dark' conspiracy? Central European University Budapest. MPRA.
- [17] Launiala, A. (2009). How much can a KAP survey tell us about people's knowledge, attitudes and practices? Some observations from medical anthropology research on malaria in pregnancy in Malawi. *Anthropology Matters*, 11(1).
- [18] Manderson, L., & Aaby, P. (1992). An epidemic in the field? Rapid assessment procedures and health research. *Social science & medicine*, 35(7), 839-850.
- [19] Masud, M. M., Akhtar, R., Afroz, R., Al-Amin, A. Q., & Kari, F. B. (2015). Pro-environmental behavior and public understanding of climate change. *Mitigation and Adaptation Strategies for Global Change*, 20(4), 591-600.
- [20] Messaris, P. (2013). How to Make Money from Subliminal Advertising and Motivation Research.
- [21] *International Journal of Communication*, 7, 626-641.
- [22] Nelson, M. R. (2008). The Hidden Persuaders: Then and Now. *Journal of Advertising*, 37 (1), 113- 126.
- [23] Rahman, S. A. (2013). Impact of Television Advertisements on buying pattern of Women.
- [24] *European Journal of Business and Management*, 3(3), 222-283.
- [25] The Fourth Scientific Conference on Economics and Managerial Studies Volume 3 17-20 April 2018 1843
- [26] Ramsøy, T. Z., & Overgaard, M. (2004). Introspection and subliminal perception. *Phenomenology and the Cognitive Sciences*, 3, 1-23.
- [27] Reichert, T., & Lambiase, J. (2003). How To Get "Kissably Close": Examining How Advertisers Appeal To Consumers' Sexual Needs And Desires. *Advertising campaign strategy: A guide to marketing communication*, 14 (1), 75-90.
- [28] Smarandescu, L., & Shimp, T. A. (2015). Drink coca-cola, eat popcorn, and choose powerade: testing the limits of subliminal persuasion. *Marketing Letters*, 26(4), 715-726.
- [29] Sofi, S. A., & Nika, D. F. (2013).
- [30] Impact of Subliminal Messages in TV Advertisements on Customer Behavior. *Journal of Business Management & Social Sciences Research*, 2 (12)