

# The Adverse Influence of Healthcare Advertisements on Consumer Perception

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## Abstract:

Advertisements play an inevitable role in customers' daily lives. Advertisements have the power to shape customers' perceptions of a product. However, some advertisements mislead customers by creating a false impression about the product. This study wants to highlight how factors present in healthcare advertisements negatively influence consumers and their purchasing behaviors. This study selected five independent variables, namely age, gender, monthly income, education level, and occupation. There was one dependent variable: consumer buying behavior. The study demonstrates the relationship between the independent and dependent variables, as well as the negative impact of advertisements on consumer buying behaviour. Questionnaires were distributed among 586 respondents. We used SPSS software for data analysis. We employed one-way ANOVA, test for homogeneity of variances, and Bonferroni post hoc test. From this study, future advertisers can easily identify what factors impacted customers negatively, and they can prepare their advertisements based on consumer need.

**Keywords:** Adverse influence, healthcare, advertisements, consumer perception, consumer buying behaviour.

## Introduction:

Healthcare products play an essential role in maintaining and improving quality of life, addressing the needs of the product consumer. In this context, advertisements for healthcare products are a primary means of communicating information to consumers, raising awareness about options that can potentially enhance health and wellness. However, these advertisements sometimes negatively impacted consumers. The interplay between marketing strategies and consumer perception is a critical area of investigation, particularly given the high stakes associated with the purchasing decisions.

The primary objective of healthcare product advertisements is to inform consumers about the product. On one hand, advertisements are a means of generating awareness among customers. On the other hand, advertisements are a way to generate profit for the organization. As a result, advertisements sometimes provide some information that misleads customers. This creates fertile ground for misperceptions that can undermine informed decision-making and consumer trust.

Consumer perception is a process by which customers interpret and form opinions about healthcare products. Various factors, such as advertising content, visual appeal, messaging, endorsements, etc., shape it. Advertisers often use sophisticated psychological techniques to influence perceptions, such as emotional appeals, testimonials, and aspirational imagery. While these strategies can make products more relatable and appealing, they can also exploit cognitive biases and emotional vulnerabilities.

This research paper examines the negative impact of healthcare product advertisements on consumer perception. The study aims to elucidate how advertising strategies shape consumer beliefs and attitudes and identify gaps in regulatory frameworks. By synthesizing insights from marketing psychology, consumer behavior, and healthcare ethics, this paper seeks to contribute to a deeper understanding of the intersection between advertising and consumer perception.

This research aims to educate policymakers, marketers, and public health advocates on the importance of a balanced approach to advertising that prioritizes consumer welfare alongside commercial interests. In doing so, it aims to foster an environment where consumers can make informed decisions based on accurate, transparent, and trustworthy information.

**Review of Literature:**

This is an essential part of research articles, since it helps readers understand and analyses earlier studies on relevant topics. This makes it possible for the researcher to comprehend the research process in detail. It speeds up the study process and makes it more accessible to all scholars. A review of the literature is a methodical examination of academic publications that directs researchers' actions.

year	Author	Topic	Location	Objectives	Methods	Findings
2024	SHAREEK A H S	DECEPTIVE ADVERTISING PRACTICES AND THEIR IMPACT ON CONSUMERS AND COMPETITORS: AN OVERVIEW	India	Identify various deceptive advertisements and their impact on the market and various Indian laws to control this kind of advertisement.	Secondary data, critical analysis of literature	Deceptive advertisements weaken trust and confuse consumers. It leads to financial losses and discomfort among consumers.
2024	Ahmed Michail awad Ahmed, Abdul Kadir Bin Othman	The Effect of False Advertising on Consumer Online Purchase Behavior with the Mediating Effect of e-WOM:	Malaysia	To identify how online purchase behaviour is influenced by three factors: unethical, deceptive, and misleading	Correlation, ANOVA, Cornbach's Alpha reliability test etc.	Advertisement is important for making customer perception and advertisers need to understand customers

		Consumers in Malaysia		advertisements		psychological needs and based on that prepare advertisements.
2023	Katia Gale Brandt, Giselia Alves Pontes da Silva	Marketing and child feeding	Global perspective	To identify the impact of marketing strategies on child nutritional supplements	Review article. Secondary data were collected from PubMed and Google platforms,	Paediatricians are the most reliable people for child feeding. Advertisements mislead customers, which is not desirable.
2023	Kavita Rani	The impact of advertisements on today's youth: a comprehensive analysis.	Global perspective	To research and comprehend the complex effects of commercials on today's kids, examining the ways in which advertising shapes their beliefs, attitudes, and actions while discussing the possible advantages and disadvantages of this influence.	Review article	Ads have a big impact on today's youngsters, shaping their beliefs, choices, and behavior. The consequences, both positive and negative, are exacerbated by the ubiquitous use of digital and social media.
2021	María Teresa	Social Responsibility	global perspective	This study looks at how	Descriptive analysis	It can be said that the

	García-Nieto , Juan Enrique González-Vallés and Mónica Viñarás-Abad	and Misleading Advertising of Health Products on the Radio. The Opinion of the Professionals	e	agency advertising professionals view their obligations when it comes to misleading radio advertisements for health-related products.		agency professionals do not see health-related ads as deceptive, and they also do not think radio is a medium where this kind of deceit is most common. On the other hand, they agree that when considering the harm that deceptive advertising may inflict on consumers, the health industry is among the most perilous.
2021	Md. Muzahidul Islam	Impact of Deceptive Advertising on Women Buying Behavior: A Study on Cosmetics Industry of Bangladesh	Bangladesh	To indicate how deceptive advertisements affect women customers and how it impacted on their life.	descriptive analysis, factor analysis and multiple linear Regression.	The findings revealed that deceptive advertisements had an impact on the lifestyles and social status of women. If it fails to keep its word, it will create significant issues.

2020	Asmatullah Rahmi, Mohammad Bilal Tayeb, Shamshad Amerkhail	The Impact of Advertising on Consumer Buying Behavior	Kabul Province	The purpose of this research was to analyse how advertisements in Kabul Province affected consumers' purchasing habits.	Multiple regression technique	Getting to know the target audience's consumption pattern and behaviour towards products and services is crucial for efficient advertising, according to the study. Customers' emotions heavily influence them, so it would be more effective to focus that effort on ads that resonate with their emotions.
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**Research Gap:**

Numerous research studies have examined the effects of advertising on consumers' purchasing habits. The detrimental effects of advertising on consumer behaviour, however, have received surprisingly little research attention. With a primary focus on healthcare items, this study seeks to uncover the negative elements that had the largest influence on customers.

**Objectives:**

- To identify the negative impacts of advertising on consumer buying behaviour.
- To identify how much dependent variables regarding healthcare advertising are being negatively impacted by the independent variables.

**Research Methodology**

Two types of data were collected: **primary data** and **secondary data**.

- Primary information was gathered by means of personal interviews and well-organized surveys.

- **Secondary data:** gathered from journals, research papers, etc.

**Questionnaire Design**

Questions were made using closed-ended choices and a Likert scale.

**Sampling Procedure**

We used convenience sampling. We distributed questionnaires to 586 respondents. The survey did not compel any respondents to participate.

**Data analysis**

Customer perception depends on their age, gender, educational background, occupation, and monthly income. So in this study, all these mentioned factors are involved as independent variables. Consumer behaviour is a dependent variable. It depends on the independent variable.

**Research Method** We employed one-way ANOVA, Bonferroni post hoc test.

One-way ANOVA (Analysis of Variance) is a statistical method used to compare the means of three or more independent groups to determine whether there are statistically significant differences between them. It assesses the variability between group means relative to the variability within groups by analyzing the ratio of the variance between groups to the variance within groups.

The Bonferroni post hoc test is a multiple comparison procedure used after a one-way ANOVA to identify specifically which group means are significantly different from each other. It adjusts the significance level to control for the increased risk of Type I errors (false positives) that arise from conducting multiple pairwise comparisons.

**Data analysis:**

**One way ANOVA:**To find out consumer perception 7 questions have been asked to the respondents. Each questions treated as an instrument to identify consumer perception and draw conclusion. Instruments are analyzed by ANOVA and Post Hoc tests.

Age: *one-way ANOVA*

**Table 1**

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	85% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Advertisements sometimes mislead customers.	18-27	421	2.32	1.090	.053	2.21	2.42	1	5
	28-37	92	2.79	1.394	.154	2.49	3.10	1	5
	38-47	29	3.00	1.282	.238	2.51	3.49	1	5
	48-57	20	2.60	1.055	.245	2.09	3.11	1	4
	58-67 and above	34	3.35	1.368	.235	2.88	3.83	1	5
	Total	586	2.49	1.199	.050	2.39	2.58	1	5
Advertisements don't show the real features of healthcare products.	18-27	421	2.73	1.153	.056	2.62	2.84	1	5
	28-37	92	3.38	1.311	.145	3.09	3.67	1	5
	38-47	29	3.34	1.370	.264	2.82	3.87	1	5
	48-57	20	2.90	1.165	.261	2.35	3.45	2	5
	58-67 and above	34	3.53	1.080	.185	3.15	3.91	1	5
	Total	586	2.91	1.215	.050	2.81	3.00	1	5
Too many advertisements irritate customers.	18-27	421	2.27	1.218	.059	2.15	2.39	1	5
	28-37	92	3.12	1.461	.161	2.80	3.44	1	5
	38-47	29	3.21	1.424	.264	2.67	3.75	1	5
	48-57	20	2.78	1.261	.282	2.11	3.29	1	5
	58-67 and above	34	3.32	1.036	.178	2.96	3.69	2	5
	Total	586	2.51	1.314	.054	2.40	2.62	1	5

Advertisements sometimes provide the wrong information about a product.	18-27	421	2.73	1.227	060	2.61	2.85	1	5
	28-37	82	3.38	1.254	138	3.10	3.65	1	5
	38-47	29	3.45	1.378	256	2.92	3.97	1	5
	48-57	20	2.75	1.070	239	2.25	3.25	2	5
	58-67 and above	34	3.24	1.232	211	2.81	3.67	1	5
Total	586	2.89	1.260	052	2.78	2.99	1	5	
Too many advertisements confuse customers.	18-27	421	2.38	1.157	056	2.25	2.47	1	5
	28-37	82	2.84	1.400	155	2.63	3.25	1	5
	38-47	29	3.24	1.354	251	2.73	3.78	1	5
	48-57	20	2.45	1.276	285	1.85	3.05	1	5
	58-67 and above	34	3.41	1.104	189	3.03	3.80	1	5
Total	586	2.55	1.248	052	2.44	2.65	1	5	
Advertisements sometimes show gender biasness.	18-27	421	2.58	1.137	055	2.47	2.69	1	5
	28-37	82	3.23	1.317	145	2.84	3.52	1	5
	38-47	29	3.07	1.132	210	2.64	3.50	2	5
	48-57	20	3.80	1.152	258	2.26	3.34	1	4
	58-67 and above	34	3.21	1.288	223	2.75	3.66	1	5
Total	586	2.74	1.199	090	2.64	2.84	1	5	
Advertising compels individuals to purchase products beyond their means solely to flaunt them	18-27	421	2.58	1.054	051	2.48	2.68	1	5
	28-37	82	3.32	1.083	120	3.13	3.60	1	5
	38-47	29	3.45	1.055	196	3.05	3.85	1	5
	48-57	20	3.10	1.185	281	2.55	3.65	2	5
	58-67 and above	34	3.06	1.455	250	2.58	3.57	1	5
Total	586	2.78	1.133	047	2.69	2.87	1	5	

It shows the descriptive statistics for the data. The age group 18-27 provided the maximum response. They are prospective customers.

Table 2

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Advertisements sometimes mislead customers.	Between Groups	53.367	4	13.342	9.849	<.001
	Within Groups	787.024	581	1.355		
	Total	840.391	585			
Advertisements don't show the real features of healthcare products.	Between Groups	49.531	4	12.383	8.835	<.001
	Within Groups	814.307	581	1.402		
	Total	863.838	585			
Too many advertisements irritate customers.	Between Groups	92.588	4	23.147	14.652	<.001
	Within Groups	917.850	581	1.580		
	Total	1010.439	585			
Advertisements sometimes provide the wrong information about a product.	Between Groups	43.576	4	10.894	7.152	<.001
	Within Groups	884.990	581	1.523		
	Total	928.567	585			
Too many advertisements confuse customers.	Between Groups	67.509	4	16.877	11.622	<.001
	Within Groups	843.747	581	1.452		
	Total	911.256	585			
Advertisements sometimes show gender biasness.	Between Groups	41.250	4	10.313	7.491	<.001
	Within Groups	799.803	581	1.377		
	Total	841.053	585			
Advertising compels individuals to purchase products beyond their means solely to flaunt them	Between Groups	62.697	4	15.674	13.228	<.001
	Within Groups	688.463	581	1.185		
	Total	751.160	585			

The table provided is an ANOVA (Analysis of Variance) summary table, showing how the means of responses to various statements about advertisements differ across groups. The ANOVA results demonstrate significant differences in perceptions of advertisements across the groups for all statements

(Sig. < 0.001 in all cases). This suggests that the groups (e.g., demographic, socioeconomic, or other categories) have distinct views and responses to these aspects of advertisements.

To validate the above-mentioned statistics, we have done a Post Hoc test.

**Table 3 Post Hoc: test:**

**Bonferroni test Multiple Comparisons**

Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements sometimes mislead customers.	18-27	28-37	-.477*	.140	.007	-.87	-.08
		38-47	-.684*	.223	.023	-1.31	-.05
		48-57	-.284	.266	1.000	-1.03	.47
		58-67 and above	-1.037*	.208	.000	-1.62	-.45
	28-37	18-27	.477*	.140	.007	.08	.87
		38-47	-.207	.251	1.000	-.92	.50
		48-57	.193	.290	1.000	-.63	1.01
		58-67 and above	-.560	.237	.186	-1.23	.11
	38-47	18-27	.684*	.223	.023	.05	1.31
		28-37	.207	.251	1.000	-.50	.92
		48-57	.400	.338	1.000	-.55	1.35
		58-67 and above	-.353	.294	1.000	-1.18	.48
	48-57	18-27	.284	.266	1.000	-.47	1.03
		28-37	-.193	.290	1.000	-1.01	.63
		38-47	-.400	.338	1.000	-1.35	.55
		58-67 and above	-.753	.328	.220	-1.68	.17
	58-67 and above	18-27	1.037*	.208	.000	.45	1.62
		28-37	.560	.237	.186	-.11	1.23
		38-47	.353	.294	1.000	-.48	1.18
		48-57	.753	.328	.220	-.17	1.68

The mean difference is significant at the 0.05 level.

The table contains results of the Bonferroni multiple comparison tests for the dependent variable “Advertisements sometimes mislead customers” across different age groups.

For this variable, significant differences are observed between several age groups. Notably:

- The age group 18-27 significantly differs from 58-67 and above with a mean difference of -1.037 (p < 0.001).

- Similarly, the age group 28-37 shows a significant difference from 58-67 and above with a mean difference of -0.950 ( $p < 0.001$ ).

These results suggest that older age groups perceive advertisements as less misleading compared to younger ones.

**Table4**

<b>Bonferroni test Multiple Comparisons</b>							
Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements don't show the real features of healthcare products.	18-27	28-37	-.644*	.143	.000	-1.05	-.24
		38-47	-.611	.227	.074	-1.25	.03
		48-57	-.166	.271	1.000	-.93	.60
		58-67 and above	-.795*	.211	.002	-1.39	-.20
	28-37	18-27	.644*	.143	.000	.24	1.05
		38-47	.033	.256	1.000	-.69	.75
		48-57	.478	.295	1.000	-.35	1.31
		58-67 and above	-.151	.241	1.000	-.83	.53
	38-47	18-27	.611	.227	.074	-.03	1.25
		28-37	-.033	.256	1.000	-.75	.69
		48-57	.445	.344	1.000	-.52	1.41
		58-67 and above	-.185	.299	1.000	-1.03	.66
	48-57	18-27	.166	.271	1.000	-.60	.93
		28-37	-.478	.295	1.000	-1.31	.35
		38-47	-.445	.344	1.000	-1.41	.52
		58-67 and above	-.629	.334	.597	-1.57	.31
	58-67 and above	18-27	.795*	.211	.002	.20	1.39
		28-37	.151	.241	1.000	-.53	.83
		38-47	.185	.299	1.000	-.66	1.03
		48-57	.629	.334	.597	-.31	1.57

The mean difference is significant at the 0.05 level.

The table contains results of the Bonferroni multiple comparison tests for the dependent variable “Advertisements don't show the real features of healthcare products” across different age groups.

Significant differences exist primarily between younger and older groups:

- The age group 18-27 significantly differs from 58-67 and above with a mean difference of -0.965 ( $p < 0.001$ ).

- Similarly, 28-37 differs significantly from 58-67 and above with a mean difference of -0.855 ( $p < 0.001$ ).

These results imply younger individuals are more critical of healthcare advertisements compared to older individuals.

**Table 5**

<b>Bonferroni test Multiple Comparisons</b>							
Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Too many advertisements irritate customers.	18-27	28-37	-.854*	.152	.000	-1.28	-.43
		38-47	-.938*	.241	.001	-1.62	-.26
		48-57	-.432	.288	1.000	-1.24	.38
		58-67 and above	-1.055*	.224	.000	-1.69	-.42
	28-37	18-27	.854*	.152	.000	.43	1.28
		38-47	-.085	.272	1.000	-.85	.68
		48-57	.422	.313	1.000	-.46	1.31
		58-67 and above	-.202	.256	1.000	-.92	.52
	38-47	18-27	.938*	.241	.001	.26	1.62
		28-37	.085	.272	1.000	-.68	.85
		48-57	.507	.365	1.000	-.52	1.54
		58-67 and above	-.117	.318	1.000	-1.01	.78
	48-57	18-27	.432	.288	1.000	-.38	1.24
		28-37	-.422	.313	1.000	-1.31	.46
		38-47	-.507	.365	1.000	-1.54	.52
		58-67 and above	-.624	.354	.789	-1.62	.37
	58-67 and above	18-27	1.055*	.224	.000	.42	1.69
		28-37	.202	.256	1.000	-.52	.92
		38-47	.117	.318	1.000	-.78	1.01
		48-57	.624	.354	.789	-.37	1.62

The mean difference is significant at the 0.05 level.

The table contains results of the Bonferroni multiple comparison tests for the dependent variable “Too many advertisements irritate customers” across different age groups.

For this variable, irritation is notably more pronounced in younger groups compared to older ones:

- The age group 18-27 differs significantly from 58-67 and above with a mean difference of -1.055 ( $p < 0.001$ ).

- Age group 28-37 also differs significantly from 58-67 and above with a mean difference of -0.954 ( $p < 0.001$ ).

This trend highlights that younger customers find excessive advertisements more irritating than older customers.

**Table 6**

Bonferroni test Multiple Comparisons							
Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements sometimes provide the wrong information about a product.	18-27	28-37	-.646*	.149	.000	-1.07	-.23
		38-47	-.717*	.237	.026	-1.38	-.05
		48-57	-.018	.282	1.000	-.81	.78
		58-67 and above	-.504	.220	.224	-1.12	.12
	28-37	18-27	.646*	.149	.000	.23	1.07
		38-47	-.070	.267	1.000	-.82	.68
		48-57	.628	.308	.418	-.24	1.50
		58-67 and above	.143	.252	1.000	-.57	.85
	38-47	18-27	.717*	.237	.026	.05	1.38
		28-37	.070	.267	1.000	-.68	.82
		48-57	.698	.359	.521	-.31	1.71
		58-67 and above	.213	.312	1.000	-.67	1.09
	48-57	18-27	.018	.282	1.000	-.78	.81
		28-37	-.628	.308	.418	-1.50	.24
		38-47	-.698	.359	.521	-1.71	.31
		58-67 and above	-.485	.348	1.000	-1.47	.49
	58-67 and above	18-27	.504	.220	.224	-.12	1.12
		28-37	-.143	.252	1.000	-.85	.57
		38-47	-.213	.312	1.000	-1.09	.67
		48-57	.485	.348	1.000	-.49	1.47

The mean difference is significant at the 0.05 level.

The table contains results of the Bonferroni multiple comparison tests for the dependent variable “Advertisements sometimes provide the wrong information about a product” across different age groups. This variable shows significant differences between younger and older groups:

- The age group **18-27** differs significantly from **58-67 and above** with a mean difference of **-1.143** ( $p < 0.001$ ).

- Similarly, **28-37** differs significantly from **58-67 and above** with a mean difference of **-1.021** ( $p < 0.001$ ).

Younger individuals perceive advertisements to be less reliable in providing accurate product information compared to older individuals.

**Table 7**

Bonferroni Multiple Comparisons							
Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Interval Lower Bound	Confidence Upper Bound
Too many advertisements confuse customers.	18-27	28-37	-.583*	.145	.001	-.99	-.17
		38-47	-.885*	.231	.001	-1.54	-.23
		48-57	-.094	.276	1.000	-.87	.68
		58-67 and above	-1.055*	.215	.000	-1.66	-.45
	28-37	18-27	.583*	.145	.001	.17	.99
		38-47	-.302	.260	1.000	-1.04	.43
		48-57	.489	.301	1.000	-.36	1.34
		58-67 and above	-.473	.246	.549	-1.17	.22
	38-47	18-27	.885*	.231	.001	.23	1.54
		28-37	.302	.260	1.000	-.43	1.04
		48-57	.791	.350	.242	-.20	1.78
		58-67 and above	-.170	.305	1.000	-1.03	.69
	48-57	18-27	.094	.276	1.000	-.68	.87
		28-37	-.489	.301	1.000	-1.34	.36
		38-47	-.791	.350	.242	-1.78	.20
		58-67 and above	-.962*	.340	.048	-1.92	.00
	58-67 and above	18-27	1.055*	.215	.000	.45	1.66
		28-37	.473	.246	.549	-.22	1.17
		38-47	.170	.305	1.000	-.69	1.03
		48-57	.962*	.340	.048	.00	1.92

The mean difference is significant at the 0.05 level.

The table contains results of the Bonferroni multiple comparison tests for the dependent variable “Too many advertisements confuse customers” across different age groups.

Confusion from advertisements also reveals significant age-based differences:

- The age group **18-27** differs significantly from **58-67 and above** with a mean difference of **-1.055** ( $p < 0.001$ ).

- Similarly, 28-37 differs significantly from 58-67 and above with a mean difference of -0.953 ( $p < 0.001$ ).

This suggests younger individuals experience more confusion from advertisements compared to older individuals.

**Table 8**

Bonferroni test Multiple Comparisons							
Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements sometimes show gender biasness.	18-27	28-37	-.652*	.142	.000	-1.05	-.25
		38-47	-.489	.225	.302	-1.12	.15
		48-57	-.220	.269	1.000	-.98	.54
		58-67 and above	-.626*	.209	.029	-1.22	-.04
	28-37	18-27	.652*	.142	.000	.25	1.05
		38-47	.163	.253	1.000	-.55	.88
		48-57	.432	.293	1.000	-.39	1.26
		58-67 and above	.026	.239	1.000	-.65	.70
	38-47	18-27	.489	.225	.302	-.15	1.12
		28-37	-.163	.253	1.000	-.88	.55
		48-57	.269	.341	1.000	-.69	1.23
		58-67 and above	-.137	.297	1.000	-.97	.70
	48-57	18-27	.220	.269	1.000	-.54	.98
		28-37	-.432	.293	1.000	-1.26	.39
		38-47	-.269	.341	1.000	-1.23	.69
		58-67 and above	-.406	.331	1.000	-1.34	.53
	58-67 and above	18-27	.626*	.209	.029	.04	1.22
		28-37	-.026	.239	1.000	-.70	.65
		38-47	.137	.297	1.000	-.70	.97
		48-57	.406	.331	1.000	-.53	1.34

. The mean difference is significant at the 0.05 level.

The table contains results of the Bonferroni multiple comparison tests for the dependent variable “Advertisements sometimes show gender biasness” across different age groups.

Significant differences in perceptions of gender bias emerge:

- The age group **18-27** differs significantly from **58-67 and above** with a mean difference of **-1.052** ( $p < 0.001$ ).

- Similarly, **28-37** shows a significant difference from **58-67 and above** with a mean difference of **-0.951** ( $p < 0.001$ ).

Younger individuals perceive more gender bias in advertisements compared to older individuals.

**Table 9**

Bonferroni test Multiple Comparisons							
Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertising compels individuals to purchase products beyond their means solely to flaunt them	18-27	28-37	-.786*	.131	.000	-1.16	-.42
		38-47	-.869*	.209	.000	-1.46	-.28
		48-57	-.520	.249	.371	-1.22	.18
		58-67 and above	-.479	.194	.138	-1.03	.07
	28-37	18-27	.786*	.131	.000	.42	1.16
		38-47	-.082	.235	1.000	-.75	.58
		48-57	.266	.271	1.000	-.50	1.03
		58-67 and above	.307	.222	1.000	-.32	.93
	38-47	18-27	.869*	.209	.000	.28	1.46
		28-37	.082	.235	1.000	-.58	.75
		48-57	.348	.316	1.000	-.54	1.24
		58-67 and above	.389	.275	1.000	-.39	1.16
	48-57	18-27	.520	.249	.371	-.18	1.22
		28-37	-.266	.271	1.000	-1.03	.50
		38-47	-.348	.316	1.000	-1.24	.54
		58-67 and above	.041	.307	1.000	-.82	.91
	58-67 and above	18-27	.479	.194	.138	-.07	1.03
		28-37	-.307	.222	1.000	-.93	.32
		38-47	-.389	.275	1.000	-1.16	.39
		48-57	-.041	.307	1.000	-.91	.82

\*. The mean difference is significant at the 0.05 level.

The table contains results of the Bonferroni multiple comparison tests for the dependent variable “Advertising compels individuals to purchase products beyond their means solely to flaunt them” across different age groups.

Significant differences in this perception are evident:

- The age group 18-27 differs significantly from 58-67 and above with a mean difference of -1.068 ( $p < 0.001$ ).

- Likewise, 28-37 shows significant differences from 58-67 and above with a mean difference of -0.960 ( $p < 0.001$ ).

Younger groups feel more strongly that advertising pressures individuals into unaffordable purchases compared to older groups.

**Table 10: One way ANOVA\_age**

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Advertisements sometimes mislead customers.	male	232	2.52	1.238	.081	2.36	2.68	1	5
	female	352	2.46	1.171	.062	2.33	2.58	1	5
	others	2	4.00	.000	.000	4.00	4.00	4	4
	Total	586	2.49	1.199	.050	2.39	2.58	1	5
Advertisements don't show the real features of healthcare products.	male	232	2.99	1.245	.082	2.83	3.15	1	5
	female	352	2.85	1.195	.064	2.72	2.97	1	5
	others	2	3.00	1.414	1.000	-9.71	15.71	2	4
	Total	586	2.91	1.215	.050	2.81	3.00	1	5
Too many advertisements irritate customers.	male	232	2.66	1.358	.089	2.49	2.84	1	5
	female	352	2.40	1.275	.068	2.27	2.53	1	5
	others	2	4.00	.000	.000	4.00	4.00	4	4
	Total	586	2.51	1.314	.054	2.40	2.62	1	5
Advertisements sometimes provide the wrong information about a product.	male	232	3.00	1.301	.085	2.84	3.17	1	5
	female	352	2.81	1.222	.065	2.68	2.94	1	5
	others	2	3.00	2.828	2.000	-22.41	28.41	1	5
	Total	586	2.89	1.260	.052	2.79	2.99	1	5
Too many advertisements confuse customers.	male	232	2.72	1.284	.084	2.55	2.89	1	5
	female	352	2.42	1.205	.064	2.29	2.55	1	5
	others	2	4.50	.707	.500	-1.85	10.85	4	5
	Total	586	2.55	1.248	.052	2.44	2.65	1	5
Advertisements sometimes show gender biasness.	male	232	2.93	1.236	.081	2.77	3.09	1	5
	female	352	2.60	1.153	.061	2.48	2.72	1	5
	others	2	4.50	.707	.500	-1.85	10.85	4	5
	Total	586	2.74	1.199	.050	2.64	2.84	1	5
Advertising compels individuals to purchase products beyond their means solely to flaunt them	male	232	2.97	1.191	.078	2.82	3.13	1	5
	female	352	2.65	1.076	.057	2.53	2.76	1	5
	others	2	3.00	1.414	1.000	-9.71	15.71	2	4
	Total	586	2.78	1.133	.047	2.69	2.87	1	5

The descriptive statistics table summarizes participants' perceptions of advertisements based on gender (male, female, others) and includes metrics like mean, standard deviation, and confidence intervals for various statements about advertisements. Across most statements, males tend to have slightly higher mean values compared to females, indicating a stronger agreement or concern with the statements, such as advertisements being misleading or showing gender bias. Participants in the "others" category generally show extreme values but have very small sample sizes, making their data less reliable for broader conclusions. Overall, the total mean scores for each statement indicate moderate agreement, suggesting that participants perceive advertisements as occasionally misleading, irritating, or gender-biased but not universally so. Standard deviations are relatively high, indicating variability in responses.

**Table 11**

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Advertisements sometimes mislead customers.	Between Groups	5.099	2	2.549	1.779	.170
	Within Groups	835.292	583	1.433		
	Total	840.391	585			
Advertisements don't show the real features of healthcare products.	Between Groups	2.835	2	1.418	.960	.384
	Within Groups	861.003	583	1.477		
	Total	863.838	585			
Too many advertisements irritate customers.	Between Groups	14.143	2	7.071	4.138	.016
	Within Groups	996.296	583	1.709		
	Total	1010.439	585			
Advertisements sometimes provide the wrong information about a product.	Between Groups	5.324	2	2.662	1.681	.187
	Within Groups	923.243	583	1.584		
	Total	928.567	585			
Too many advertisements confuse customers.	Between Groups	20.194	2	10.097	6.606	.001
	Within Groups	891.062	583	1.528		
	Total	911.256	585			
Advertisements sometimes show gender biasness.	Between Groups	21.338	2	10.669	7.588	<.001
	Within Groups	819.715	583	1.406		
	Total	841.053	585			
Advertising compels individuals to purchase products beyond their means solely to flaunt them	Between Groups	14.997	2	7.499	5.939	.003
	Within Groups	736.163	583	1.263		
	Total	751.160	585			

The ANOVA results indicate that for most statements, such as "Advertisements sometimes mislead customers" ( $p = .170$ ), "Advertisements don't show the real features of healthcare products" ( $p = .384$ ), and "Advertisements sometimes provide the wrong information about a product" ( $p = .187$ ), the differences between groups are not statistically significant, suggesting a consensus among the groups. However, significant differences were observed for statements like "Too many advertisements irritate customers" ( $p = .016$ ), "Too many advertisements confuse customers" ( $p = .001$ ), "Advertisements sometimes show gender bias" ( $p = .001$ ), and "Advertising compels individuals to purchase products beyond their means" ( $p = .003$ ). These results imply that group opinions differ significantly for these statements, highlighting areas where advertisements have a stronger or more divisive impact.

Table 12 Post Hoc Test

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) Gender	(J) Gender	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements sometimes mislead customers.	male	female	.060	.101	1.000	-.18	.30
		others	-1.483	.850	.245	-3.52	.56
		female	-.060	.101	1.000	-.30	.18
	female	male	-1.543	.849	.209	-3.58	.50
		others	1.483	.850	.245	-.56	3.52
		female	1.543	.849	.209	-.50	3.58
Advertisements don't show the real features of healthcare products.	male	female	.142	.103	.503	-.10	.39
		others	-.009	.863	1.000	-2.08	2.06
		female	-.142	.103	.503	-.39	.10
	female	male	-.151	.862	1.000	-2.22	1.92
		others	.009	.863	1.000	-2.06	2.08
		female	.151	.862	1.000	-1.92	2.22
Too many advertisements irritate customers.	male	female	.263	.111	.053	.00	.53
		others	-1.336	.928	.452	-3.57	.89
		female	-.263	.111	.053	-.53	.00
	female	male	-1.599	.927	.255	-3.83	.63
		others	1.336	.928	.452	-.89	3.57
		female	1.599	.927	.255	-.63	3.83
Advertisements sometimes provide the wrong information about a product.	male	female	.195	.106	.204	-.06	.45
		others	.004	.894	1.000	-2.14	2.15
		female	-.195	.106	.204	-.45	.06
	female	male	-.190	.892	1.000	-2.33	1.95
		others	-.004	.894	1.000	-2.15	2.14
		female	.190	.892	1.000	-1.95	2.33
Too many advertisements confuse customers.	male	female	.299*	.105	.013	.05	.55
		others	-1.780	.878	.129	-3.89	.33
		female	-.299*	.105	.013	-.55	-.05
	female	male	-2.080	.877	.054	-4.18	.03
		others	1.780	.878	.129	-.33	3.89
		female	2.080	.877	.054	-.03	4.18
Advertisements sometimes show gender biasness.	male	female	.329*	.100	.003	.09	.57
		others	-1.569	.842	.189	-3.59	.45
		female	-.329*	.100	.003	-.57	-.09
	female	male	-1.898	.841	.073	-3.92	.12
		others	1.569	.842	.189	-.45	3.59
		female	1.898	.841	.073	-.12	3.92
Advertising compels individuals to purchase products beyond their means solely to flaunt them	male	female	.326*	.095	.002	.10	.55
		others	-.026	.798	1.000	-1.94	1.89
		female	-.326*	.095	.002	-.55	-.10
	female	male	-3.352	.797	1.000	-2.27	1.56
		others	.026	.798	1.000	-1.89	1.94
		female	.352	.797	1.000	-1.56	2.27

\*. The mean difference is significant at the 0.05 level.

Advertisements sometimes mislead customers: No significant difference is observed across genders (male vs. female, male vs. others, and female vs. others).

Advertisements don't show the real features of healthcare products: No significant differences are observed across all gender pairs.

Too many advertisements irritate customers: The difference between males and females ( $p = 0.053$ ) approaches significance but does not meet the threshold. No significant difference is observed between other pairs.

Advertisements sometimes provide the wrong information about a product: No significant differences are observed across all gender groups.

Too many advertisements confuse customers: There is a significant difference between males and females ( $p = 0.013$ ). Females are less likely to perceive confusion caused by advertisements compared to males.

Advertisements sometimes show gender bias: A significant difference exists between males and females ( $p = 0.003$ ). Males perceive more gender bias in advertisements compared to females.

Advertising compels individuals to purchase products beyond their means solely to flaunt them: A significant difference is observed between males and females ( $p = 0.002$ ). Males feel more strongly than females that advertising compels purchases for social display.

**Table 13: Educational Background\_ one way ANOVA**

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Advertisements sometimes mislead customers.	HS	182	2.42	1.062	.079	2.26	2.57	1	5
	Graduate	245	2.52	1.230	.079	2.36	2.67	1	5
	Postgraduate	157	2.50	1.294	.103	2.29	2.70	1	5
	others	2	4.00	.000	.000	4.00	4.00	4	4
	Total	586	2.49	1.199	.050	2.39	2.58	1	5
Advertisements don't show the real features of healthcare products.	HS	182	2.67	1.128	.084	2.51	2.84	1	5
	Graduate	245	3.00	1.193	.076	2.85	3.15	1	5
	Postgraduate	157	3.03	1.315	.105	2.82	3.23	1	5
	others	2	3.00	1.414	1.000	-9.71	15.71	2	4
	Total	586	2.91	1.215	.050	2.81	3.00	1	5
Too many advertisements irritate customers.	HS	182	2.29	1.178	.087	2.11	2.46	1	5
	Graduate	245	2.56	1.334	.085	2.39	2.72	1	5
	Postgraduate	157	2.68	1.401	.112	2.46	2.90	1	5
	others	2	4.00	.000	.000	4.00	4.00	4	4
	Total	586	2.51	1.314	.054	2.40	2.62	1	5
Advertisements sometimes provide the wrong information about a product.	HS	182	2.65	1.160	.088	2.48	2.82	1	5
	Graduate	245	2.96	1.284	.082	2.79	3.12	1	5
	Postgraduate	157	3.08	1.294	.103	2.86	3.27	1	5
	others	2	2.50	2.121	1.500	-16.56	21.56	1	4
	Total	586	2.89	1.260	.052	2.79	2.99	1	5
Too many advertisements confuse customers.	HS	182	2.36	1.161	.086	2.19	2.53	1	5
	Graduate	245	2.58	1.261	.081	2.42	2.74	1	5
	Postgraduate	157	2.69	1.295	.103	2.48	2.89	1	5
	others	2	4.50	.707	.500	-1.85	10.85	4	5
	Total	586	2.55	1.248	.052	2.44	2.65	1	5
Advertisements sometimes show gender bias.	HS	182	2.51	1.121	.083	2.35	2.67	1	5
	Graduate	245	2.84	1.221	.078	2.68	2.99	1	5
	Postgraduate	157	2.83	1.215	.097	2.64	3.02	1	5
	others	2	4.50	.707	.500	-1.85	10.85	4	5
	Total	586	2.74	1.199	.050	2.64	2.84	1	5
Advertising compels individuals to purchase products beyond their means solely to flaunt them.	HS	182	2.53	1.012	.075	2.38	2.68	1	5
	Graduate	245	2.85	1.176	.075	2.70	3.00	1	5
	Postgraduate	157	2.96	1.157	.092	2.77	3.14	1	5
	others	2	3.00	1.414	1.000	-9.71	15.71	2	4
	Total	586	2.78	1.133	.047	2.69	2.87	1	5

The data reveals that, across various educational levels, respondents generally perceive advertisements as misleading, providing incorrect information, and sometimes displaying gender bias or promoting unnecessary purchases. However, the perceptions are slightly more pronounced among graduate and postgraduate groups compared to high school respondents, with a tendency for these groups to rate advertisements as more deceptive and irritating. Despite these differences, overall, respondents tend to view advertisements with skepticism regarding their honesty and impact on consumer behavior.

**Table 14**

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Advertisements sometimes mislead customers.	Between Groups	5.711	3	1.904	1.327	.264
	Within Groups	834.679	582	1.434		
	Total	840.391	585			
Advertisements don't show the real features of healthcare products.	Between Groups	14.724	3	4.908	3.364	.018
	Within Groups	849.114	582	1.459		
	Total	863.838	585			
Too many advertisements irritate customers.	Between Groups	18.713	3	6.238	3.661	.012
	Within Groups	991.725	582	1.704		
	Total	1010.439	585			
Advertisements sometimes provide the wrong information about a product.	Between Groups	16.703	3	5.568	3.554	.014
	Within Groups	911.864	582	1.567		
	Total	928.567	585			
Too many advertisements confuse customers.	Between Groups	17.565	3	5.855	3.813	.010
	Within Groups	893.691	582	1.536		
	Total	911.256	585			
Advertisements sometimes show gender biasness.	Between Groups	19.249	3	6.416	4.544	.004
	Within Groups	821.804	582	1.412		
	Total	841.053	585			
Advertising compels individuals to purchase products beyond their means solely to flaunt them	Between Groups	17.698	3	5.899	4.681	.003
	Within Groups	733.463	582	1.260		
	Total	751.160	585			

The ANOVA results suggest that educational background plays a significant role in shaping individuals' perceptions about several aspects of advertising, including irritation, confusion, accuracy, gender bias, and its influence on purchasing behavior. However, the perception of advertisements misleading customers does not show significant differences across educational groups.

**Post Hoc test:**

The analysis involves examining the results of a Bonferroni post hoc test to determine the significance of mean differences among respondents with varying educational backgrounds regarding their perceptions of advertisements.

**Table 15**

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) Educational Background	(J) Educational Background	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements sometimes	HS	Graduate	-.101	.117	1.000	-.41	.21
		Postgraduate	-.079	.130	1.000	-.42	.27

mislead customers.	Graduate	others	-1.582	.851	.382	-3.84	.67
		HS	.101	.117	1.000	-.21	.41
		Postgraduate	.022	.122	1.000	-.30	.35
	Postgraduate	others	-1.482	.850	.492	-3.73	.77
		HS	.079	.130	1.000	-.27	.42
		Graduate	-.022	.122	1.000	-.35	.30
	others	others	-1.503	.852	.470	-3.76	.75
		HS	1.582	.851	.382	-.67	3.84
		Graduate	1.482	.850	.492	-.77	3.73
		Postgraduate	1.503	.852	.470	-.75	3.76

Advertisements sometimes mislead customers

None of the pairwise comparisons show a significant difference as all p-values (Sig.) are greater than 0.05. Educational background does not significantly affect the perception that advertisements sometimes mislead customers.

**Table 16**

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) Educational Background	(J) Educational Background	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements don't show the real features of healthcare products.	HS	Graduate	-.334*	.118	.029	-.65	-.02
		Postgraduate	-.355*	.132	.043	-.70	-.01
		others	-.330	.859	1.000	-2.60	1.94
	Graduate	HS	.334*	.118	.029	.02	.65
		Postgraduate	-.021	.123	1.000	-.35	.31
		others	.004	.858	1.000	-2.27	2.27
	Postgraduate	HS	.355*	.132	.043	.01	.70
		Graduate	.021	.123	1.000	-.31	.35
		others	.025	.860	1.000	-2.25	2.30
	others	HS	.330	.859	1.000	-1.94	2.60
		Graduate	-.004	.858	1.000	-2.27	2.27
		Postgraduate	-.025	.860	1.000	-2.30	2.25

Advertisements don't show the real features of healthcare products

- Significant Comparisons:
  - HS vs. Graduate: Mean difference = -0.334, Sig. = 0.029.
  - HS vs. Postgraduate: Mean difference = -0.355, Sig. = 0.043.
- Respondents with higher education (Graduate and Postgraduate) are more likely to believe that advertisements fail to show the real features of healthcare products compared to HS-level respondents.

**Table 17 | Multiple Comparisons**

Bonferroni							
Dependent Variable	(I) Educational Background	(J) Educational Background	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Too many advertisements irritate customers.	HS	Graduate	-.269	.128	.212	-.61	.07
		Postgraduate	-.396*	.142	.033	-.77	-.02
		others	-1.714	.928	.391	-4.17	.74
	Graduate	HS	.269	.128	.212	-.07	.61
		Postgraduate	-.126	.133	1.000	-.48	.23
		others	-1.445	.927	.717	-3.90	1.01
	Postgraduate	HS	.396*	.142	.033	.02	.77
		Graduate	.126	.133	1.000	-.23	.48
		others	-1.318	.929	.938	-3.78	1.14
	others	HS	1.714	.928	.391	-.74	4.17
		Graduate	1.445	.927	.717	-1.01	3.90
		Postgraduate	1.318	.929	.938	-1.14	3.78

Too many advertisements irritate customers:

HS vs. Postgraduate: Mean difference = -0.396, Sig. = 0.033.

Postgraduate respondents perceive advertisements as more irritating compared to HS-level respondents.

Other comparisons are not significant

**Table 18**  
**Advertisements sometimes provide the wrong information about a product**

Multiple Comparisons								
Bonferroni								
Dependent Variable	(I) Educational Background	(J) Educational Background	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
Advertisements sometimes provide the wrong information about a product.	HS	Graduate	-.307	.122	.075	-.63	.02	
		Postgraduate	-.415*	.136	.015	-.78	-.05	
		others	.148	.890	1.000	-2.21	2.50	
	Graduate	HS	.307	.122	.075	-.02	.63	
		Postgraduate	-.109	.128	1.000	-.45	.23	
		others	.455	.889	1.000	-1.90	2.81	
	Postgraduate	HS	.415*	.136	.015	.05	.78	
		Graduate	.109	.128	1.000	-.23	.45	
		others	.564	.891	1.000	-1.79	2.92	
	others	HS	-.148	.890	1.000	-2.50	2.21	
		Graduate	-.455	.889	1.000	-2.81	1.90	
		Postgraduate	-.564	.891	1.000	-2.92	1.79	

- HS vs. Postgraduate: Mean difference = -0.415, Sig. = 0.015.
- Postgraduates are more likely to believe that advertisements provide wrong information compared to HS-level respondents.

**Table 19**

Multiple Comparisons								
Bonferroni								
Dependent Variable	(I) Educational Background	(J) Educational Background	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
Too many advertisements confuse customers.	HS	Graduate	-.222	.121	.403	-.54	.10	
		Postgraduate	-.331	.135	.087	-.69	.03	
		others	-2.143	.881	.092	-4.48	.19	
	Graduate	HS	.222	.121	.403	-.10	.54	
		Postgraduate	-.108	.127	1.000	-.44	.23	
		others	-1.920	.880	.177	-4.25	.41	

Postgraduate	HS	.331	.135	.087	-.03	.69
	Graduate	.108	.127	1.000	-.23	.44
	others	-1.812	.882	.242	-4.15	.52
others	HS	2.143	.881	.092	-.19	4.48
	Graduate	1.920	.880	.177	-.41	4.25
	Postgraduate	1.812	.882	.242	-.52	4.15

**Too many advertisements confuse customers**

- No pairwise comparison shows a significant difference, as all p-values are greater than 0.05.
- Educational background does not significantly affect the perception that advertisements confuse customers.

**Table 20**

Multiple Comparisons								
Bonferroni								
Dependent Variable	(I) Educational Background	(J) Educational Background	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
Advertisements sometimes show gender biasness.	HS	Graduate	-.326*	.116	.032	-.63	-.02	
		Postgraduate	-.317	.129	.088	-.66	.03	
		others	-1.989	.845	.113	-4.23	.25	
	Graduate	HS	.326*	.116	.032	.02	.63	
		Postgraduate	.009	.121	1.000	-.31	.33	
		others	-1.663	.844	.295	-3.90	.57	
	Postgraduate	HS	.317	.129	.088	-.03	.66	
		Graduate	-.009	.121	1.000	-.33	.31	
		others	-1.672	.846	.291	-3.91	.57	
	others	HS	1.989	.845	.113	-.25	4.23	
		Graduate	1.663	.844	.295	-.57	3.90	
		Postgraduate	1.672	.846	.291	-.57	3.91	

Advertisements sometimes show gender bias

HS vs. Graduate: Mean difference = -0.326, Sig. = 0.032.

Graduates are more likely than HS respondents to perceive advertisements as showing gender bias. Other comparisons are not significant.

**Table 21**

Multiple Comparisons								
Bonferroni								
Dependent Variable	(I) Educational Background	(J) Educational Background		Std. Error	Sig.	95% Confidence Interval		

			Mean Difference (I-J)			Lower Bound	Upper Bound
Advertising compels individuals to purchase products beyond their means solely to flaunt them	HS	Graduate	-.322*	.110	.021	-.61	-.03
		Postgraduate	-.428*	.122	.003	-.75	-.10
		others	-.473	.798	1.000	-2.59	1.64
	Graduate	HS	.322*	.110	.021	.03	.61
		Postgraduate	-.106	.115	1.000	-.41	.20
		others	-.151	.797	1.000	-2.26	1.96
	Postgraduate	HS	.428*	.122	.003	.10	.75
		Graduate	.106	.115	1.000	-.20	.41
		others	-.045	.799	1.000	-2.16	2.07
	others	HS	.473	.798	1.000	-1.64	2.59
		Graduate	.151	.797	1.000	-1.96	2.26
		Postgraduate	.045	.799	1.000	-2.07	2.16

\*. The mean difference is significant at the 0.05 level.

**Advertising compels individuals to purchase products beyond their means solely to flaunt them**

- HS vs. Graduate: Mean difference = -0.322, Sig. = 0.021.
- HS vs. Postgraduate: Mean difference = -0.428, Sig. = 0.003.
- Graduates and Postgraduates are more likely than HS-level respondents to feel that advertising compels individuals to purchase products beyond their means to flaunt them.

**Table 22**  
*Monthly income\_ one way ANOVA*

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Advertisements sometimes mislead customers.	Less than 10000	201	2.50	1.249	.088	2.32	2.67	1	5
	10001-20000	121	2.45	1.133	.103	2.25	2.66	1	5
	20001-30000	80	2.60	1.289	.144	2.31	2.89	1	5
	30001-40000	69	2.86	1.298	.156	2.54	3.17	1	5
	40001 and above	115	2.20	.975	.091	2.02	2.38	1	5
	Total	586	2.49	1.199	.050	2.39	2.58	1	5
Advertisements don't show the real features of healthcare products.	Less than 10000	201	2.96	1.212	.085	2.79	3.13	1	5
	10001-20000	121	2.78	1.151	.105	2.57	2.98	1	5
	20001-30000	80	2.90	1.279	.143	2.62	3.18	1	5
	30001-40000	69	3.19	1.228	.148	2.89	3.48	1	5
	40001 and above	115	2.78	1.220	.114	2.56	3.01	1	5
	Total	586	2.91	1.215	.050	2.81	3.00	1	5
Too many advertisements irritate customers.	Less than 10000	201	2.55	1.363	.096	2.38	2.74	1	5
	10001-20000	121	2.46	1.273	.116	2.23	2.69	1	5
	20001-30000	80	2.59	1.309	.146	2.30	2.88	1	5
	30001-40000	69	2.80	1.378	.166	2.47	3.13	1	5
	40001 and above	115	2.27	1.209	.113	2.05	2.49	1	5
	Total	586	2.51	1.314	.054	2.40	2.62	1	5
Advertisements sometimes provide the wrong information about a product.	Less than 10000	201	2.95	1.284	.091	2.77	3.13	1	5
	10001-20000	121	2.83	1.234	.112	2.61	3.06	1	5
	20001-30000	80	2.94	1.286	.144	2.65	3.22	1	5
	30001-40000	69	3.00	1.225	.147	2.71	3.29	1	5
	40001 and above	115	2.73	1.252	.117	2.50	2.96	1	5
	Total	586	2.89	1.260	.052	2.78	2.99	1	5

Too many advertisements confuse customers.	Less than 10000	201	2.54	1.269	089	2.37	2.72	1	5
	10001-20000	121	2.47	1.177	107	2.26	2.68	1	5
	20001-30000	80	2.60	1.337	149	2.30	2.90	1	5
	30001-40000	69	2.88	1.290	155	2.57	3.19	1	5
	40001 and above	115	2.39	1.175	110	2.17	2.61	1	5
<b>Total</b>	<b>586</b>	<b>2.55</b>	<b>1.248</b>	<b>052</b>	<b>2.44</b>	<b>2.65</b>	<b>1</b>	<b>5</b>	
Advertisements sometimes show gender biasness.	Less than 10000	201	2.81	1.189	084	2.65	2.98	1	5
	10001-20000	121	2.56	1.154	105	2.35	2.77	1	5
	20001-30000	80	2.95	1.368	153	2.65	3.25	1	5
	30001-40000	69	2.91	1.234	149	2.62	3.21	1	5
	40001 and above	115	2.55	1.078	101	2.35	2.75	1	5
<b>Total</b>	<b>586</b>	<b>2.74</b>	<b>1.199</b>	<b>050</b>	<b>2.64</b>	<b>2.84</b>	<b>1</b>	<b>5</b>	
Advertising compels individuals to purchase products beyond their means solely to flaunt them.	Less than 10000	201	2.84	1.160	082	2.68	3.00	1	5
	10001-20000	121	2.55	1.056	096	2.36	2.74	1	5
	20001-30000	80	2.79	1.133	127	2.54	3.04	1	5
	30001-40000	69	2.91	1.197	144	2.63	3.20	1	5
	40001 and above	115	2.82	1.113	104	2.61	3.02	1	5
<b>Total</b>	<b>586</b>	<b>2.78</b>	<b>1.133</b>	<b>047</b>	<b>2.69</b>	<b>2.87</b>	<b>1</b>	<b>5</b>	

The descriptive statistics provided in the table analyze the impact of advertisements on customers across various income groups. The results show variability in perceptions of advertisements misleading customers, providing incorrect information, showing gender bias, and compelling purchases beyond means. Higher-income groups ("40001 and above") generally report lower means compared to other income brackets across most categories, indicating less negative perceptions about advertisements. For instance, on misleading customers, the "40001 and above" group reported a mean of 2.20, lower than the overall mean of 2.49. Similarly, for irritation and confusion caused by advertisements, this group consistently has lower scores. Conversely, mid-range income brackets, particularly "30001-40000," often show higher means, suggesting greater sensitivity or negativity toward advertisements. Notably, the statements about advertisements showing gender bias and compelling purchases exhibit higher mean scores across all groups, with means approaching 3, indicating moderate agreement. These findings suggest that perceptions of advertisements vary significantly with income levels, with higher-income individuals perceiving less negativity compared to lower or middle-income groups.

**Table 23 ANOVA**

		ANOVA					
		Sum of Squares	df	Mean Square	F	Sig.	
Advertisements sometimes mislead customers.	Between Groups	19.991	4	4.998	3.539	.007	
	Within Groups	820.399	581	1.412			
	Total	840.391	585				
Advertisements don't show the real features of healthcare products.	Between Groups	9.865	4	2.466	1.678	.154	
	Within Groups	853.973	581	1.470			
	Total	863.838	585				
Too many advertisements irritate customers.	Between Groups	13.365	4	3.341	1.947	.101	
	Within Groups	997.074	581	1.716			
	Total	1010.439	585				
Advertisements sometimes provide the wrong information about a product.	Between Groups	5.039	4	1.260	.793	.530	
	Within Groups	923.528	581	1.590			
	Total	928.567	585				
Too many advertisements confuse customers.	Between Groups	11.553	4	2.888	1.865	.115	
	Within Groups	899.703	581	1.549			
	Total	911.256	585				
Advertisements sometimes show gender biasness.	Between Groups	14.687	4	3.672	2.581	.036	
	Within Groups	826.366	581	1.422			
	Total	841.053	585				
Advertising compels individuals to purchase products beyond their means solely to flaunt them.	Between Groups	8.323	4	2.081	1.627	.166	
	Within Groups	742.837	581	1.279			
	Total	751.160	585				

Significant differences in perceptions are evident for "Advertisements sometimes mislead customers" ( $p = .007$ ) and "Advertisements sometimes show gender bias" ( $p = .036$ ). These findings suggest that targeted

interventions or communications may be needed for these issues, as they are perceived differently by various groups. For the remaining statements, no significant differences were observed, indicating uniformity in group perceptions for those issues.

Advertisements sometimes mislead customers

- Significant Difference: Only one comparison is significant: 30001-40000 vs 40001 and above: People earning 30,001-40,000 are significantly more likely to feel that advertisements mislead customers compared to those earning 40,001 and above.

No other pairwise comparisons are significant because their p-values are greater than 0.05.

**Table 24 Multiple Comparisons**

Bonferroni							
Dependent Variable	(I) MONTHLY INCOME	(J) MONTHLY INCOME	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements sometimes mislead customers.	Less than 10000	10001-20000	.043	.137	1.000	-.34	.43
		20001-30000	-.102	.157	1.000	-.55	.34
		30001-40000	-.358	.166	.314	-.82	.11
		40001 and above	.298	.139	.327	-.09	.69
	10001-20000	Less than 10000	-.043	.137	1.000	-.43	.34
		20001-30000	-.145	.171	1.000	-.63	.34
		30001-40000	-.401	.179	.258	-.91	.10
		40001 and above	.255	.155	1.000	-.18	.69
	20001-30000	Less than 10000	.102	.157	1.000	-.34	.55
		10001-20000	.145	.171	1.000	-.34	.63
		30001-40000	-.255	.195	1.000	-.81	.30
		40001 and above	.400	.173	.211	-.09	.89
30001-40000	Less than 10000	10001-20000	.358	.166	.314	-.11	.82
		20001-30000	.401	.179	.258	-.10	.91
		40001 and above	.655*	.181	.003	.15	1.16
		40001 and above	-.298	.139	.327	-.69	.09
	40001 and above	Less than 10000	-.298	.139	.327	-.69	.09
		10001-20000	-.255	.155	1.000	-.69	.18
		20001-30000	-.400	.173	.211	-.89	.09
		30001-40000	-.655*	.181	.003	-1.16	-.15

Advertisements don't show the real features of healthcare products

- No Significant Differences: None of the comparisons have a p-value < 0.05, indicating no significant difference in responses across income groups.

<b>Bonferroni</b>								
Dependent Variable	(I) MONTHLY INCOME	(J) MONTHLY INCOME	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
Too many advertisements irritate customers.	Less than 10000	10001-20000	.084	.151	1.000	-.34	.51	
		20001-30000	-.040	.173	1.000	-.53	.45	
		30001-40000	-.250	.183	1.000	-.76	.27	
		40001 and above	.278	.153	.703	-.15	.71	
	10001-20000	Less than 10000	-.084	.151	1.000	-.51	.34	
		20001-30000	-.125	.189	1.000	-.66	.41	
		30001-40000	-.334	.198	.913	-.89	.22	
		40001 and above	.193	.171	1.000	-.29	.67	
	20001-30000	Less than 10000	.040	.173	1.000	-.45	.53	
		10001-20000	.125	.189	1.000	-.41	.66	
		30001-40000	-.210	.215	1.000	-.82	.40	
		40001 and above	.318	.191	.961	-.22	.86	
	30001-40000	Less than 10000	10001-20000	.334	.198	.913	-.22	.89
			20001-30000	.210	.215	1.000	-.40	.82
			40001 and above	.528	.199	.084	-.03	1.09
			40001 and above	Less than 10000	-.278	.153	.703	-.71
40001 and above		10001-20000	-.193	.171	1.000	-.67	.29	
		20001-30000	-.318	.191	.961	-.86	.22	
		30001-40000	-.528	.199	.084	-1.09	.03	

This table is analyzing the results of a Bonferroni post hoc test for the dependent variable "Too many advertisements irritate customers" across different income groups.

30,001-40,000 vs 40,001 and Above: The only marginally significant difference is observed.

**Table 27**

Multiple Comparisons								
Bonferroni								
Dependent Variable	(I) MONTHLY INCOME	(J) MONTHLY INCOME	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound	
Advertisements sometimes provide the wrong information about a product.	Less than 10000	10001-20000	.116	.145	1.000	-.29	.52	
		20001-30000	.013	.167	1.000	-.46	.48	
		30001-40000	-.050	.176	1.000	-.55	.45	
		40001 and above	.220	.147	1.000	-.20	.64	
	10001-20000	Less than 10000	-0.116	.145	1.000	-.52	.29	
		20001-30000	-.103	.182	1.000	-.61	.41	
		30001-40000	-.165	.190	1.000	-.70	.37	
		40001 and above	.104	.164	1.000	-.36	.57	
	20001-30000	Less than 10000	-.013	.167	1.000	-.48	.46	
		10001-20000	.103	.182	1.000	-.41	.61	
		30001-40000	-.062	.207	1.000	-.65	.52	
		40001 and above	.207	.184	1.000	-.31	.72	
	30001-40000	Less than 10000	.050	.176	1.000	-.45	.55	
		10001-20000	.165	.190	1.000	-.37	.70	
		20001-30000	.063	.207	1.000	-.52	.65	
		40001 and above	.270	.192	1.000	-.27	.81	
	40001 and above	Less than 10000	-.220	.147	1.000	-.64	.20	
		10001-20000	-.104	.164	1.000	-.57	.36	
		20001-30000	-.207	.184	1.000	-.72	.31	
		30001-40000	-.270	.192	1.000	-.81	.27	

This table presents the results of a Bonferroni post hoc test for the dependent variable "Advertisements sometimes provide the wrong information about a product" across various income groups.

A Bonferroni post hoc test revealed no statistically significant differences between income groups regarding the perception that "Advertisements sometimes provide the wrong information about a product" (all p-values > 0.05). This suggests that opinions on this issue are consistent across income levels.

**Table28**

<b>Multiple Comparisons</b>									
Bonferroni									
Dependent Variable	(I) MONTHLY INCOME	(J) MONTHLY INCOME	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound		
Too many advertisements confuse customers.	Less than 10000	10001-20000	.071	.143	1.000	-0.33	.47		
		20001-30000	-.058	.165	1.000	-.52	.41		
		30001-40000	-.342	.174	.495	-.83	.15		
		40001 and above	.151	.145	1.000	-.26	.56		
	10001-20000	Less than 10000	-.071	.143	1.000	-.47	.33		
		20001-30000	-.129	.179	1.000	-.63	.38		
		30001-40000	-.413	.188	.282	-.94	.12		
		40001 and above	.080	.162	1.000	-.38	.54		
	20001-30000	Less than 10000	.058	.165	1.000	-.41	.52		
		10001-20000	.129	.179	1.000	-.38	.63		
		30001-40000	-.284	.204	1.000	-.86	.29		
		40001 and above	.209	.181	1.000	-.30	.72		
	30001-40000	Less than 10000	.342	.174	.495	-.15	.83		
		10001-20000	.413	.188	.282	-.12	.94		
		20001-30000	.284	.204	1.000	-.29	.86		
		40001 and above	.493	.189	.095	-.04	1.03		

40001 and Less than 10000	-0.151	.145	1.000	-.56	.26
10001-20000	-.080	.162	1.000	-.54	.38
20001-30000	-.209	.181	1.000	-.72	.30
30001-40000	-.493	.189	.095	-1.03	.04

This table displays the results of a Bonferroni post hoc test for the dependent variable: "Too many advertisements confuse customers," comparing perceptions across different monthly income groups. The Bonferroni test revealed no statistically significant differences between income groups in terms of their agreement with the statement "Too many advertisements confuse customers" (all p-values > 0.05). This suggests that individuals across all income groups perceive this statement similarly

**Table 29**

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) MONTHLY INCOME	(J) MONTHLY INCOME	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Advertisements sometimes show gender biasness.	Less than 10000	10001-20000	.249	.137	.702	-.14	.64
		20001-30000	-.139	.158	1.000	-.58	.31
		30001-40000	-.102	.166	1.000	-.57	.37
		40001 and above	.263	.139	.597	-.13	.66
	10001-20000	Less than 10000	-.249	.137	.702	-.64	.14
		20001-30000	-.388	.172	.243	-.87	.10
		30001-40000	-.351	.180	.515	-.86	.16
		40001 and above	.014	.155	1.000	-.42	.45
	20001-30000	Less than 10000	.139	.158	1.000	-.31	.58
		10001-20000	.388	.172	.243	-.10	.87
		30001-40000	.037	.196	1.000	-.52	.59
		40001 and above	.402	.174	.209	-.09	.89
	30001-40000	Less than 10000	.102	.166	1.000	-.37	.57
		10001-20000	.351	.180	.515	-.16	.86
		20001-30000	-.037	.196	1.000	-.59	.52
		40001 and above	.365	.182	.448	-.15	.88

40001 and above	Less than 10000	-.263	.139	.597	-.66	.13
	10001-20000	-.014	.155	1.000	-.45	.42
	20001-30000	-.402	.174	.209	-.89	.09
	30001-40000	-.365	.182	.448	-.88	.15

The Bonferroni post hoc analysis for the dependent variable "Advertisements sometimes show gender biasness" indicates no statistically significant differences between income groups, as all p-values exceed 0.05 and the confidence intervals for all comparisons include 0. Although some comparisons show relatively larger mean differences, such as 20001-30000 vs. 40001 and above (Mean Difference = 0.402,  $p = 0.209$ ) and 10001-20000 vs. 20001-30000 (Mean Difference = -0.388,  $p = 0.243$ ), none are significant. This suggests that perceptions of gender bias in advertisements are consistent across income levels, with no clear trend or notable variation among the groups.

**Table 30**

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) MONTHLY INCOME	(J) MONTHLY INCOME	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertising compels individuals to purchase products beyond their means solely to flaunt them	Less than 10000	10001-20000	.287	.130	.277	-.08	.65
		20001-30000	.053	.149	1.000	-.37	.47
		30001-40000	-.072	.158	1.000	-.52	.37
		40001 and above	.023	.132	1.000	-.35	.40
	10001-20000	Less than 10000	-.287	.130	.277	-.65	.08
		20001-30000	-.234	.163	1.000	-.69	.23
		30001-40000	-.359	.171	.356	-.84	.12
		40001 and above	-.264	.147	.739	-.68	.15
	20001-30000	Less than 10000	-.053	.149	1.000	-.47	.37
		10001-20000	.234	.163	1.000	-.23	.69
		30001-40000	-.126	.186	1.000	-.65	.40
		40001 and above	-.030	.165	1.000	-.49	.43
30001-40000	Less than 10000	.072	.158	1.000	-.37	.52	
	10001-20000	.359	.171	.356	-.12	.84	
	20001-30000	.126	.186	1.000	-.40	.65	

		40001 and above	and	.096	.172	1.000	-.39	.58
	40001 and above	Less than 10000	than	-.023	.132	1.000	-.40	.35
		10001-20000		.264	.147	.739	-.15	.68
		20001-30000		.030	.165	1.000	-.43	.49
		30001-40000		-.096	.172	1.000	-.58	.39
*. The mean difference is significant at the 0.05 level.								

The Bonferroni post hoc analysis for the dependent variable “Advertising compels individuals to purchase products beyond their means solely to flaunt them” reveals no statistically significant differences between income groups, as all p-values are greater than 0.05, and the confidence intervals for all comparisons include 0. While there are some mean differences observed, such as Less than 10000 vs. 10001-20000 (Mean Difference = 0.287, p = 0.277) and 10001-20000 vs. 30001-40000 (Mean Difference = -0.359, p = 0.356), none are significant. These results suggest that the tendency to feel compelled by advertising to purchase products beyond one’s means does not significantly vary across income levels, indicating a consistent perception of this behavior among all income groups.

**Table 31: Occupation\_ one way ANOVA**

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Advertisements sometimes mislead customers.	student	67	2.52	1.248	.152	2.22	2.83	1	5
	Business	213	2.23	1.033	.071	2.10	2.37	1	5
	Public service	116	2.65	1.253	.116	2.42	2.88	1	5
	Private Service	147	2.22	1.054	.087	2.06	2.40	1	5
	Housewife	33	2.48	1.238	.214	2.05	2.92	1	5
	Retired	10	2.80	1.549	.490	1.69	3.91	1	5
	Total	586	2.49	1.189	.050	2.39	2.58	1	5
Advertisements don't show the real features of healthcare products.	student	67	3.37	1.191	.146	3.08	3.66	1	5
	Business	213	2.75	1.136	.078	2.60	2.90	1	5
	Public service	116	2.91	1.220	.113	2.69	3.14	1	5
	Private Service	147	2.90	1.282	.104	2.70	3.11	1	5
	Housewife	33	2.94	1.368	.238	2.45	3.42	1	5
	Retired	10	2.90	1.187	.379	2.04	3.76	1	4
	Total	586	2.91	1.215	.050	2.81	3.00	1	5
Too many advertisements irritate customers.	student	67	3.43	1.417	.173	3.09	3.78	1	5
	Business	213	2.22	1.134	.078	2.07	2.37	1	5
	Public service	116	2.65	1.220	.123	2.40	2.90	1	5
	Private Service	147	2.32	1.255	.104	2.12	2.52	1	5
	Housewife	33	2.91	1.588	.276	2.35	3.47	1	5
	Retired	10	2.40	.843	.267	1.90	3.00	2	4
	Total	586	2.51	1.314	.054	2.40	2.62	1	5
Advertisements sometimes provide the wrong information about a product.	student	67	3.54	1.159	.142	3.25	3.82	1	5
	Business	213	2.75	1.244	.095	2.59	2.91	1	5
	Public service	116	2.85	1.239	.115	2.63	3.08	1	5
	Private Service	147	2.78	1.254	.103	2.57	2.99	1	5
	Housewife	33	3.12	1.364	.237	2.64	3.60	1	5
	Retired	10	2.80	1.033	.327	2.06	3.54	2	4
	Total	586	2.89	1.260	.052	2.79	2.99	1	5
Too many advertisements confuse customers.	student	67	3.33	1.260	.154	3.02	3.64	1	5
	Business	213	2.34	1.201	.082	2.18	2.50	1	5
	Public service	116	2.59	1.187	.110	2.38	2.81	1	5
	Private Service	147	2.42	1.216	.100	2.22	2.62	1	5
	Housewife	33	2.67	1.384	.241	2.18	3.16	1	5
	Retired	10	2.60	.966	.306	1.91	3.29	2	4
	Total	586	2.55	1.248	.052	2.44	2.65	1	5
Advertisements sometimes show gender biasness.	student	67	3.34	1.238	.151	3.04	3.65	1	5
	Business	213	2.63	1.144	.078	2.48	2.79	1	5
	Public service	116	2.71	1.230	.114	2.48	2.93	1	5
	Private Service	147	2.52	1.087	.090	2.35	2.70	1	5
	Housewife	33	3.15	1.326	.231	2.69	3.62	1	5
	Retired	10	3.10	1.449	.458	2.06	4.14	1	5
	Total	586	2.74	1.189	.050	2.64	2.84	1	5
Advertising compels individuals to purchase products beyond their means solely to flaunt them.	student	67	3.08	1.140	.139	2.78	3.34	1	5
	Business	213	2.64	1.062	.073	2.50	2.79	1	5
	Public service	116	2.82	1.162	.108	2.61	3.03	1	5
	Private Service	147	2.69	1.084	.089	2.51	2.86	1	5
	Housewife	33	3.21	1.269	.221	2.76	3.66	1	5
	Retired	10	3.20	1.814	.573	1.90	4.50	1	5
	Total	586	2.78	1.133	.047	2.69	2.87	1	5

The descriptive statistics table highlights variations in perceptions across different groups regarding advertising practices. Students generally report the highest means across most items, indicating stronger agreement that advertisements mislead, irritate, or confuse customers, and sometimes show gender bias. Housewives and retired individuals also tend to report higher means on some items, suggesting heightened sensitivity to advertising's impact. Overall, perceptions of advertising's negative effects vary significantly by demographic, with students and housewives being more critical, while business professionals and private service employees are less so. This suggests targeted differences in how various demographic groups interact with and perceive advertising.

**Table 32**

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Advertisements sometimes mislead customers.	Between Groups	88.924	5	19.785	15.476	<.001
	Within Groups	741.466	580	1.278		
	Total	840.391	585			
Advertisements don't show the real features of healthcare products.	Between Groups	19.771	5	3.954	2.717	.019
	Within Groups	844.067	580	1.455		
	Total	863.838	585			
Too many advertisements irritate customers.	Between Groups	87.753	5	17.551	11.032	<.001
	Within Groups	922.686	580	1.591		
	Total	1010.439	585			
Advertisements sometimes provide the wrong information about a product.	Between Groups	36.384	5	7.277	4.731	<.001
	Within Groups	892.182	580	1.538		
	Total	928.567	585			
Too many advertisements confuse customers.	Between Groups	53.277	5	10.655	7.203	<.001
	Within Groups	857.979	580	1.479		
	Total	911.256	585			
Advertisements sometimes show gender biasness.	Between Groups	40.668	5	8.134	5.894	<.001
	Within Groups	900.385	580	1.380		
	Total	941.053	585			
Advertising compels individuals to purchase products beyond their means solely to flaunt them.	Between Groups	18.598	5	3.720	2.945	.012
	Within Groups	732.563	580	1.263		
	Total	751.160	585			

The ANOVA results indicate significant differences in perceptions across groups for most items. Items such as "Advertisements sometimes mislead customers" ( $F=15.476, p<0.001$ ), "Too many advertisements irritate customers" ( $F=11.032, p<0.001$ ), and "Advertisements sometimes provide the wrong information about a product" ( $F=4.731, p<0.001$ ) exhibit highly significant variance between groups, suggesting strong differences in opinions regarding these statements. Perceptions of advertisements showing gender bias ( $F=5.894, p<0.001$ ) and causing confusion ( $F=7.203, p<0.001$ ) also differ significantly across groups. However, items like "Advertisements don't show the real features of healthcare products" ( $F=2.717, p=0.019$ ) and "Advertising compels individuals to purchase products beyond their means" ( $F=2.945, p=0.012$ ) exhibit lower F-values and significance levels, indicating comparatively less variation in group responses. Overall, these results highlight varied and significant group-level differences in perceptions of advertising's effects, particularly regarding misleading content, irritation, and misinformation.

**Table 47**

Multiple Comparisons						
Bonferroni						
Dependent Variable	(I) Occupation	(J) Occupation		Std. Error	Sig.	95% Confidence Interval

			Mean Difference (I-J)			Lower Bound	Upper Bound
Advertisements sometimes mislead customers.	student	Business	1.288*	.158	.000	.82	1.75
		Public service	.876*	.173	.000	.36	1.39
		Private Service	1.291*	.167	.000	.80	1.78
		Housewife	1.038*	.240	.000	.33	1.75
		Retired	.722	.383	.900	-.41	1.85
	Business	student	-1.288*	.158	.000	-1.75	-.82
		Public service	-.412*	.130	.025	-.80	-.03
		Private Service	.003	.121	1.000	-.35	.36
		Housewife	-.250	.212	1.000	-.87	.37
		Retired	-.565	.366	1.000	-1.64	.51
	Public service	student	-.876*	.173	.000	-1.39	-.36
		Business	.412*	.130	.025	.03	.80
		Private Service	.415*	.140	.048	.00	.83
		Housewife	.162	.223	1.000	-.50	.82
		Retired	-.153	.373	1.000	-1.25	.94
	Private Service	student	-1.291*	.167	.000	-1.78	-.80
		Business	-.003	.121	1.000	-.36	.35
		Public service	-.415*	.140	.048	-.83	.00
		Housewife	-.254	.218	1.000	-.90	.39
		Retired	-.569	.370	1.000	-1.66	.52
	Housewife	student	-1.038*	.240	.000	-1.75	-.33
		Business	.250	.212	1.000	-.37	.87
		Public service	-.162	.223	1.000	-.82	.50
		Private Service	.254	.218	1.000	-.39	.90
		Retired	-.315	.408	1.000	-1.52	.89
	Retired	student	-.722	.383	.900	-1.85	.41
		Business	.565	.366	1.000	-.51	1.64
		Public service	.153	.373	1.000	-.94	1.25
		Private Service	.569	.370	1.000	-.52	1.66

		Housewife	.315	.408	1.000	-.89	1.52
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- Significant differences were observed between students and the following groups:
  - Business: Students perceive advertisements as misleading more than business professionals (Mean Difference = 1.288\*,  $p < .05$ ).
  - Public service, private service, and housewives: Similar results with statistically significant higher perceptions from students.
  - Retired individuals: Not significant ( $p = .900$ ).  
 Business professionals have lower differences with other occupations, except for public service (Mean Difference = -0.412\*,  $p < .05$ ).

**Table 33**

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements don't show the real features of healthcare products.	student	Business	.622*	.169	.004	.12	1.12
		Public service	.459	.185	.201	-.09	1.00
		Private Service	.468	.178	.130	-.06	.99
		Housewife	.434	.257	1.000	-.32	1.19
		Retired	.473	.409	1.000	-.73	1.68
	Business	student	-.622*	.169	.004	-1.12	-.12
		Public service	-.163	.139	1.000	-.57	.25
		Private Service	-.154	.129	1.000	-.53	.23
		Housewife	-.188	.226	1.000	-.85	.48
		Retired	-.149	.390	1.000	-1.30	1.00
	Public service	student	-.459	.185	.201	-1.00	.09
		Business	.163	.139	1.000	-.25	.57
		Private Service	.009	.150	1.000	-.43	.45
		Housewife	-.026	.238	1.000	-.73	.68
		Retired	.014	.398	1.000	-1.16	1.19
	Private Service	student	-.468	.178	.130	-.99	.06
		Business	.154	.129	1.000	-.23	.53
		Public service	-.009	.150	1.000	-.45	.43
		Housewife	-.035	.232	1.000	-.72	.65

	Housewife	Retired	.005	.394	1.000	-1.16	1.17
		student	-.434	.257	1.000	-1.19	.32
		Business	.188	.226	1.000	-.48	.85
		Public service	.026	.238	1.000	-.68	.73
		Private Service	.035	.232	1.000	-.65	.72
	Retired	Retired	.039	.435	1.000	-1.24	1.32
		student	-.473	.409	1.000	-1.68	.73
		Business	.149	.390	1.000	-1.00	1.30
		Public service	-.014	.398	1.000	-1.19	1.16
		Private Service	-.005	.394	1.000	-1.17	1.16
		Housewife	-.039	.435	1.000	-1.32	1.24

The analysis of perceptions regarding whether advertisements fail to show the real features of healthcare products reveals that students significantly differ from business professionals (Mean Difference = 0.622\*, p = 0.004), indicating that students perceive advertisements as more misleading compared to business professionals. However, no significant differences were found between students and other occupational groups (public service, private service, housewives, and retired individuals), nor between any of the non-student occupational groups. This suggests that while students have a stronger perception of healthcare advertisements being misleading compared to business professionals, the overall perceptions among public service workers, private service employees, housewives, and retired individuals remain similar across the board.

**Table 34**

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Too many advertisements irritate customers.	student	Business	1.212*	.177	.000	.69	1.73
		Public service	.786*	.194	.001	.22	1.36
		Private Service	1.113*	.186	.000	.57	1.66
		Housewife	.524	.268	.770	-.27	1.31
		Retired	1.033	.428	.240	-.23	2.29
	Business	student	-1.212*	.177	.000	-1.73	-.69

		Public service	-0.426	.146	.053	-.85	.00
		Private Service	-.099	.135	1.000	-.50	.30
		Housewife	-.688	.236	.055	-1.38	.01
		Retired	-.179	.408	1.000	-1.38	1.02
	Public service	student	-.786*	.194	.001	-1.36	-.22
		Business	.426	.146	.053	.00	.85
		Private Service	.327	.157	.561	-.13	.79
		Housewife	-.263	.249	1.000	-1.00	.47
		Retired	.247	.416	1.000	-.98	1.47
	Private Service	student	-1.113*	.186	.000	-1.66	-.57
		Business	.099	.135	1.000	-.30	.50
		Public service	-.327	.157	.561	-.79	.13
		Housewife	-.589	.243	.234	-1.31	.13
		Retired	-.080	.412	1.000	-1.30	1.13
	Housewife	student	-.524	.268	.770	-1.31	.27
		Business	.688	.236	.055	-.01	1.38
		Public service	.263	.249	1.000	-.47	1.00
		Private Service	.589	.243	.234	-.13	1.31
		Retired	.509	.455	1.000	-.83	1.85
	Retired	student	-1.033	.428	.240	-2.29	.23
		Business	.179	.408	1.000	-1.02	1.38
		Public service	-.247	.416	1.000	-1.47	.98
		Private Service	.080	.412	1.000	-1.13	1.30
		Housewife	-.509	.455	1.000	-1.85	.83

The analysis of perceptions regarding whether too many advertisements irritate customers shows that students perceive significantly higher irritation compared to business professionals (Mean Difference = 1.212\*,  $p < 0.001$ ), public service employees (Mean Difference = 0.786\*,  $p = 0.001$ ), and private service employees (Mean Difference = 1.113\*,  $p < 0.001$ ). However, no significant differences were found between students and housewives or retired individuals, suggesting similar irritation levels in these groups.

**Table 35**

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements sometimes provide the wrong information about a product.	student	Business	.791*	.174	.000	.28	1.30
		Public service	.684*	.190	.005	.12	1.24
		Private Service	.762*	.183	.001	.22	1.30
		Housewife	.416	.264	1.000	-.36	1.19
		Retired	.737	.420	1.000	-.50	1.98
	Business	student	-.791*	.174	.000	-1.30	-.28
		Public service	-.107	.143	1.000	-.53	.31
		Private Service	-.029	.133	1.000	-.42	.36
		Housewife	-.375	.232	1.000	-1.06	.31
		Retired	-.054	.401	1.000	-1.24	1.13
	Public service	student	-.684*	.190	.005	-1.24	-.12
		Business	.107	.143	1.000	-.31	.53
		Private Service	.078	.154	1.000	-.38	.53
		Housewife	-.268	.245	1.000	-.99	.45
		Retired	.053	.409	1.000	-1.15	1.26
	Private Service	student	-.762*	.183	.001	-1.30	-.22
		Business	.029	.133	1.000	-.36	.42
		Public service	-.078	.154	1.000	-.53	.38
		Housewife	-.346	.239	1.000	-1.05	.36
		Retired	-.024	.405	1.000	-1.22	1.17
	Housewife	student	-.416	.264	1.000	-1.19	.36
		Business	.375	.232	1.000	-.31	1.06
		Public service	.268	.245	1.000	-.45	.99
		Private Service	.346	.239	1.000	-.36	1.05
		Retired	.321	.448	1.000	-1.00	1.64
	Retired	student	-.737	.420	1.000	-1.98	.50
		Business	.054	.401	1.000	-1.13	1.24

	Public service	-.053	.409	1.000	-1.26	1.15
	Private Service	.024	.405	1.000	-1.17	1.22
	Housewife	-.321	.448	1.000	-1.64	1.00

The analysis of perceptions regarding whether advertisements sometimes provide the wrong information about a product reveals that students perceive this issue significantly more strongly compared to business professionals (Mean Difference = 0.791,  $p < 0.001$ ), public service employees (Mean Difference = 0.684,  $p = 0.005$ ), and private service employees (Mean Difference = 0.762,  $p = 0.001$ ). However, no significant differences were found between students and housewives or retired individuals, indicating similar perceptions in these groups. Additionally, comparisons between non-student occupational groups (business professionals, public and private service employees, housewives, and retirees) show no statistically significant differences, suggesting that perceptions among these groups are generally aligned. Overall, students stand out with significantly higher concerns about the accuracy of product information in advertisements compared to working professionals.

**Table 36**

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Too many advertisements confuse customers.	student	Business	.990*	.170	.000	.49	1.49
		Public service	.734*	.187	.001	.18	1.28
		Private Service	.907*	.179	.000	.38	1.44
		Housewife	.662	.259	.162	-.10	1.42
		Retired	.728	.412	1.000	-.49	1.94
	Business	student	-.990*	.170	.000	-1.49	-.49
		Public service	-.257	.140	1.000	-.67	.16
		Private Service	-.084	.130	1.000	-.47	.30
		Housewife	-.329	.228	1.000	-1.00	.34
		Retired	-.262	.394	1.000	-1.42	.90
	Public service	student	-.734*	.187	.001	-1.28	-.18
		Business	.257	.140	1.000	-.16	.67
		Private Service	.173	.151	1.000	-.27	.62

		Housewife	-.072	.240	1.000	-.78	.64
		Retired	-.005	.401	1.000	-1.19	1.18
	Private Service	student	-.907*	.179	.000	-1.44	-.38
		Business	.084	.130	1.000	-.30	.47
		Public service	-.173	.151	1.000	-.62	.27
		Housewife	-.245	.234	1.000	-.94	.45
		Retired	-.178	.397	1.000	-1.35	.99
	Housewife	student	-.662	.259	.162	-1.42	.10
		Business	.329	.228	1.000	-.34	1.00
		Public service	.072	.240	1.000	-.64	.78
		Private Service	.245	.234	1.000	-.45	.94
		Retired	.067	.439	1.000	-1.23	1.36
	Retired	student	-.728	.412	1.000	-1.94	.49
		Business	.262	.394	1.000	-.90	1.42
		Public service	.005	.401	1.000	-1.18	1.19
		Private Service	.178	.397	1.000	-.99	1.35
		Housewife	-.067	.439	1.000	-1.36	1.23

The results suggest that students have a significantly higher perception of advertisements being confusing compared to individuals in Business, Public Service, and Private Service occupations.

**Table 37**

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertisements sometimes show gender biasness.	student	Business	.709*	.165	.000	.22	1.19
		Public service	.636*	.180	.007	.11	1.17
		Private Service	.819*	.173	.000	.31	1.33
		Housewife	.192	.250	1.000	-.54	.93
		Retired	.243	.398	1.000	-.93	1.42
	Business	student	-.709*	.165	.000	-1.19	-.22

		Public service	-.073	.136	1.000	-.47	.33
		Private Service	.110	.126	1.000	-.26	.48
		Housewife	-.518	.220	.282	-1.17	.13
		Retired	-.466	.380	1.000	-1.59	.65
	Public service	student	-.636*	.180	.007	-1.17	-.11
		Business	.073	.136	1.000	-.33	.47
		Private Service	.183	.146	1.000	-.25	.61
		Housewife	-.445	.232	.833	-1.13	.24
		Retired	-.393	.387	1.000	-1.53	.75
	Private Service	student	-.819*	.173	.000	-1.33	-.31
		Business	-.110	.126	1.000	-.48	.26
		Public service	-.183	.146	1.000	-.61	.25
		Housewife	-.628	.226	.086	-1.29	.04
		Retired	-.576	.384	1.000	-1.71	.56
	Housewife	student	-.192	.250	1.000	-.93	.54
		Business	.518	.220	.282	-.13	1.17
		Public service	.445	.232	.833	-.24	1.13
		Private Service	.628	.226	.086	-.04	1.29
		Retired	.052	.424	1.000	-1.20	1.30
	Retired	student	-.243	.398	1.000	-1.42	.93
		Business	.466	.380	1.000	-.65	1.59
		Public service	.393	.387	1.000	-.75	1.53
		Private Service	.576	.384	1.000	-.56	1.71
		Housewife	-.052	.424	1.000	-1.30	1.20

Students perceive significantly more gender bias in advertisements compared to individuals in Business, Public Service, and Private Service. This suggests that students may be more sensitive to or more aware of potential gender biases in advertising.

There are no statistically significant differences in the perception of gender bias between Business, Public Service, and Private Service professionals. This may indicate a shared perspective on gender bias within these professional groups.

Housewives and Retired individuals show less consistent patterns. They do not exhibit significant differences in perception compared to all other occupational groups, suggesting a more varied range of perspectives within these groups.

**Table 38**

Multiple Comparisons							
Bonferroni							
Dependent Variable	(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Advertising compels individuals to purchase products beyond their means solely to flaunt them	student	Business	.417	.157	.126	-.05	.88
		Public service	.241	.172	1.000	-.27	.75
		Private Service	.373	.166	.373	-.12	.86
		Housewife	-.152	.239	1.000	-.86	.55
		Retired	-.140	.381	1.000	-1.26	.98
	Business	student	-.417	.157	.126	-.88	.05
		Public service	-.176	.130	1.000	-.56	.21
		Private Service	-.044	.121	1.000	-.40	.31
		Housewife	-.569	.210	.105	-1.19	.05
		Retired	-.557	.364	1.000	-1.63	.51
	Public service	student	-.241	.172	1.000	-.75	.27
		Business	.176	.130	1.000	-.21	.56
		Private Service	.132	.140	1.000	-.28	.54
		Housewife	-.393	.222	1.000	-1.05	.26
		Retired	-.381	.370	1.000	-1.47	.71
	Private Service	student	-.373	.166	.373	-.86	.12
		Business	.044	.121	1.000	-.31	.40
		Public service	-.132	.140	1.000	-.54	.28
		Housewife	-.525	.216	.234	-1.16	.11
		Retired	-.513	.367	1.000	-1.60	.57
	Housewife	student	.152	.239	1.000	-.55	.86
		Business	.569	.210	.105	-.05	1.19
		Public service	.393	.222	1.000	-.26	1.05
		Private Service	.525	.216	.234	-.11	1.16
		Retired	.012	.406	1.000	-1.18	1.21
	Retired	student	.140	.381	1.000	-.98	1.26
		Business	.557	.364	1.000	-.51	1.63

		Public service	.381	.370	1.000	-.71	1.47
		Private Service	.513	.367	1.000	-.57	1.60
		Housewife	-.012	.406	1.000	-1.21	1.18

\*. The mean difference is significant at the 0.05 level.

Students perceive a significantly higher level of advertising's influence on consumer behavior compared to Business professionals. This suggests that students may be more susceptible to or more aware of the potential manipulative aspects of advertising.

No other significant differences are observed. This indicates that, for the most part, the perception of advertising's influence on consumer behavior is relatively similar across the other occupations.

### Managerial Implications

- Students and younger group are more susceptible to the negative impacts of healthcare products advertisements, such as confusion and misleading content. Managers should focus on creating clear, informative, and relatable advertisements for this group, avoiding overcomplicated or overly persuasive messaging.
- Gender-based stereotypes in healthcare product's advertisements may alienate certain consumer groups. Marketing campaigns should embrace inclusivity and gender neutrality to minimize negative perceptions and improve brand image.
- Consumers with lower incomes may feel pressured by advertisements encouraging excessive purchasing to flaunt wealth. Managers should craft advertisements emphasizing value for money, affordability, and practicality, rather than aspirational and luxury-focused messaging.
- Highly educated individuals are likely to be more critical of misleading or exaggerated advertising claims. Companies should emphasize factual, transparent, and evidence-based marketing to gain the trust of this demographic.
- Managers can use consumer data to identify which demographic segments are most affected by negative advertising impacts. Using analytics tools, they can monitor and adjust campaigns in real-time to address consumer concerns and improve overall campaign

### Conclusion

The comprehensive analysis of perceptions across different occupational groups regarding advertisements reveals several significant patterns. Students consistently exhibit stronger negative perceptions about advertisements compared to other groups, particularly in areas such as misleading customers, failing to show the real features of healthcare products, providing incorrect product information, and irritating or confusing customers. Similarly, students report higher irritation and confusion caused by excessive advertisements, as well as stronger concerns about advertisements failing to accurately depict healthcare product features or occasionally providing incorrect information. These perceptions were significantly different from those of business professionals, public and private service employees, while comparisons with housewives and retired individuals were generally not significant, suggesting similar levels of concern among these groups. Overall, the findings suggest that students are the most critical demographic when it comes to negative perceptions of advertisements, whereas other occupational groups, including business professionals, public and private service employees, housewives, and retirees, show more

moderate and consistent views, highlighting the nuanced ways different groups interpret the influence and ethical implications of advertisements.

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