

ROLE OF ADVERTISING ON CONSUMER BUYING BEHAVIOR-A NON PARAMETRIC TEST

Dr. Sangeeta Mohanty*

Abstract

Today the word **advertising** is common to all. It figures in each of our daily lives. We see it on television, in the news papers, in the magazines on bill boards etc. Advertising is an indispensable factor in modern society. It has been the driving force in the business process. Nobody can think of doing business without advertising. Advertising is a non personal communication of sales message. It has acquired great importance in the modern India, characterized by tough competition in the market and the fast changes in technology, and fashion and taste of customers. Advertising is used for communicating business information about the product qualities, place of availability of its products etc. The main focus of this research study is to find the effects of advertising on consumer buying behaviour. The paper also provides a more comprehensive statistical analysis of evaluating consumers' decision making criteria while buying the product. The Participants were chosen randomly from cities 'Cuttack' and 'Bhubaneswar', Odisha, 270 agreed to participate in the survey but the data could be collected from 252 respondents only.

Key Words: Advertisement, Media, Television, Decision Making Process

* Assistant Professor, Academy of Business Administration, Industrial Estate (S1/25), Angargadia, Balasore, Orissa, India

Introduction

Today advertising management has become an important area of business and so, even the common man, lay persons are quite aware of this subject. Advertising is a fast moving, glamorous discipline. Advertising often grips people's mind their physique and creates a belief that the world gets created for them and by them sometimes. Advertising is one of the most important concepts used in marketing. Advertising as a means of mass communication has made mass selling possible. As a means of communication, advertising promotes the sale of goods, services, images and ideas through information and persuasion. Advertising by itself cannot sell the product. It cannot sell products of poor quality, products which are too costly, or items which do not come up to the expectations of the public. Advertising only helps in selling through the art & business of persuasive communication. It is the power packed process pertaining to the dissemination of information concerning an idea, service or a product to impel an action in line with the intension of an advertiser. It is the magnet that motivates the world of business. Thus in the modern age of large scale production, producers cannot think of pushing sale of their products without advertising them.

With increasing competition in the marketplace, the importance of customer has been growing rapidly. Customer is now becoming a key differentiation strategy for business men. The basic belief of FMCG companies is that the customer is the king around which the entire business revolves. Studying consumer behaviour enables marketing researchers to predict how consumers will react to promotional messages and to understand why they make the purchase decision they do. Marketers realize that if they know more about the consumer decision making criteria, they can design marketing strategies and promotional messages that will influence consumers more effectively. Therefore, understanding what makes people in general to buy is a vital part of business success. Past studies show that the advertisement makes the customer in particular to buy. The present study has been directed towards exploring the impact of 'advertisement' on consumers' buying behavior. As such the paper undertakes the different media of advertisement and how these media influence the consumers to buy a product.

Media of Advertisement

Media development has dramatically changed the concept of advertising through the years. The most significant contribution to advertising was the development of the printing press. The news paper advertising started during 17th century and made an important phase in the history of advertising. Then advertising gained importance in the world and gradually occupied a prime place in marketing. Most of the advertising relies on print media only. The first important medium of advertising was newspapers. The news paper is really the domain of the local merchant, especially by retailers and automobile companies.

Magazines began to assume its importance during the last decades of 1800. These are particularly effective in business advertisements that have lengthy and detailed story to tell. Until radio arrived, magazines were the largest national advertising medium. With the advent of radio, the magazine industry began to feel the heavy pressure of competition.

Radio emerged in 1922 as an exciting, new advertising medium. Its coverage is recognized as unique communication medium. The period 1930s to 1940s was the golden period for radio. It is a good medium for local advertisers, who provide radio with more than 60 percentage of its advertising.

The concept of **television** evolved in mid 1940s. Television grew rapidly during 1950s to 1960s with the provision of presenting the live demonstrations to large audiences. A major trend in media industry for 1990s is the so called information technology using cable television, computers, internet etc.

In India, advertising came to an existence in 1905 By Dattaram & Company, Mumbai and completed 100 years in 2005. Advertising in India shaped its size with the time and innovation of new technology like television, computers, cable-TV and internet. Television is more popular medium of advertising because it reaches 70% of the rural mass. It is wider and more effective in its coverage.

Objectives of the study

Objectives of the study are as follows.

1. To know the most effective media of advertisement.
2. To access the effect of advertisement on consumers' buying behavior.
3. To analyze the change in consumption pattern of rural and urban people due to advertisement.
4. To analyze the role of advertisement in providing the information about the product and services.

Hypothesis

The hypotheses pertaining to objectives are as follows

H₁: Advertisement provides important information about product/services.

H₂: Advertisement enables people to choose the right quality and brand out of various alternatives.

H₃: Advertisements motivate the people to buy the new product.

H₄: Advertisement enables to acquire rural and urban consumers' a new consumption pattern.

Research Methodology

A simple random sampling method is adopted to select the sample. The sample consists of the rural and urban people of different age and income group in the cities **Balasore, Cuttack and Bhubaneswar, Odisha**. A pre-tested questionnaire was administered to them. A pilot survey was conducted in the cities and the questionnaire was improved in that light. A structured questionnaire was used as a data collection tool. The survey was conducted during **November, December 2011** among **252** geographically dispersed respondents spread over the cities. In some cases the respondents were requested to rate the different attributes ranging from 1-5 on likert scale. Where 1 indicates the most un-favourable and 5 indicates the most favourable attitude.

Non- Parametric Statistical Test

Most of the hypotheses testing procedures are based on the assumption that the random samples are selected from the normal population. Traditionally, these testing procedures have been known as parametric tests as they depend on the parameters. But the normality condition of the population may not hold always and the problem automatically leads to **non-parametric** tests. The non

parametric tests are used in the cases where the population does not require normality assumptions. These tests are used to many situations as they do not have the rigid requirements of their parametric counterparts. The paper uses the following non-parametric tests to draw the inferences about the impact of advertising on consumers' buying behavior.

- **Friedman's Test** –Friedman Test is the non-parametric test used to test the differences between groups when the dependent variable being measured is ordinal.
- **Mann-Whitney Test** – It is used to determine whether two independent samples have been drawn from the population with the same distribution.
- **Kruskal-Wallis Test**- Kruskal wallis test is an extension of Mann-Whitney test with more than two groups and used for testing the equality of means of the populations.
- **Wilcoxon Signed Ranks Test** - This test is useful in comparing two populations with paired observations.

The non parametric statistical tools are used to elicit the objectives more clearly by using **SPSS-13** software package.

Analysis and Interpretation

1. Friedman's Test

For the purpose of statistical analysis, the sample respondents were asked to opine about the most effective media of advertisement and **table-3** has been formed on the basis of the information collected from the respondents. Further Friedman test is used to test the hypothesis, H_1 : Advertisement provides important information about product/services.

Table-1: Ranks

Media of Advertisement	Mean Rank
Radio	2.38
Television	6.00
Newspaper	3.25
Hoarding	2.63
Magazines	3.00
Displays	3.75

From the table-3, it is clear that the media television occupies the first rank, display board; magazines and news paper have approximately the same rank and occupy the second position in

eliciting the information about the product and services, whereas hoarding and the radio have insignificant role in promoting the product.

The null and alternative hypotheses of interest are as follows:

H₀₁: Advertisement does not provide important information about product/services.

H₁₁: Advertisement provides important information about product/services.

Table-2: Test Statistics

N	4
Chi-Square	10.109
d.f	5
Asymp. Sig.	0.072

a Friedman Test

Decision

Since (p-value = 0.072 > 0.05), the null hypothesis is rejected and alternative hypothesis is accepted. It is interpreted that advertisement provides important information about product/services.

2. Kruskal-Wallis Test

Advertisements convey the message about the quality and brand of the products and services to the targeted consumers and attract the users out of various alternatives. For the purpose of analyzing the data, Kruskal-wallis test is used to test the hypothesis, H₂: Advertisement enables people to choose the right quality and brand out of various alternatives.

The null and alternative hypotheses of interest are as follows:

H₀₂: Advertisement helps to choose the right quality and brand out of various alternatives.

H₁₂: Advertisement does not help to choose the right quality and brand out of various alternatives.

Table-3: Test Statistics

	Responses
Chi-Square	11.756
d.f	5
Asymp. Sig.	0.038

a Kruskal Wallis Test

b Grouping Variable: Advertisement

Decision

Since (p-value = 0.038 < 0.05), the null hypothesis is accepted and alternative hypothesis is rejected at 5% level of significance. It is interpreted that, the advertisement helps to choose the right quality and brand out of various alternatives.

3. Wilcoxon Signed Ranks Test

Wilcoxon signed rank test is carried out to test the hypothesis, H₃: Advertisements motivate the people to buy the new product

The views of the respondents were collected on the basis of the following null hypothesis using 5-points likert scale.

H₀₃: The consumption pattern of new product after the advertisement and before the advertisement being the same.

H₁₃: The consumption pattern of new product after advertisement is more than the consumption pattern before the advertisement.

Table-4: Ranks

		Mean Rank	Sum of Ranks
After-Before	Negative Ranks	.00	.00
	Positive Ranks	3.50	21.00
	Ties		
	Total		

b After > Before

Table-5: Test Statistics

	After-Before
Z	-4.201
Asymp. Sig. (2-tailed)	0.068

a Based on negative ranks.

b Wilcoxon Signed Ranks Test

Decision

Since ($p\text{-value} = 0.068 > 0.05$), the null hypothesis rejected and alternative hypothesis is accepted at 5% level of significance. It is interpreted that, the consumption pattern after advertisement is more than the consumption pattern before the advertisement.

4. Mann-Whitney Test

Mann–Whitney test is administered to the data collected to test the hypothesis, H_4 : Advertisement enables to acquire rural and urban consumers' a new consumption pattern. The rural and urban sample respondents were asked about the consumption pattern and it is found that (**table-8**) urban consumers are affected more by the advertisement.

The null and alternative hypotheses of interest are as follows:

H_{04} : Rural and urban people do not agree the fact that advertisement enables to acquire consumers' new consumption pattern.

H_{14} : There exists no difference among rural and urban people of agreeing the fact that advertisement enables to acquire consumers' new consumption pattern.

Table-6: Ranks

	Urban- Rural	Mean Rank	Sum of Ranks
Geographical Area	1.00 - Urban	7.33	44.00
	2.00 - Rural	5.67	34.00
	Total		

Table-7: Test Statistics

	Geographical Area
Mann-Whitney U	13.000
Wilcoxon W	34.000
Z	-0.806
Asymp. Sig. (2-tailed)	0.420
Exact Sig. [2*(1-tailed Sig.)]	0.485

a Not corrected for ties.

b Grouping Variable: Urban- Rural

Decision

Since ($p\text{-value} = 0.420 > 0.05$), the null hypothesis is rejected and alternative hypothesis is accepted at 5% level of significance. It is inferred that the advertisement enables to acquire consumers' new consumption pattern amongst the rural and urban people.

Findings and Conclusion

Advertising helps the common men to keep up the information about the new product and services. It is the most visible marketing tool which seeks to transmit an effective message from the marketers to a group of individuals. Advertising aims at drawing attention to a product. It helps to create an impression in the mind of the consumer to purchase a product. Advertising in India has played a vital role in the development process by creating a demand for consumer goods. The present study is an attempt to look at the advertisement, which influences the consumers buying behavior from different angles. The main objective is to measure the extent, the consumer being affected by the advertisement. The following inferences have been derived from the paper

1. Television occupies the first rank, display board; magazines and news paper have approximately the same rank and occupy the second position in eliciting the information about the product and services.
2. It is interpreted that advertisement provides important information about product/services
3. the consumption pattern after advertisement is more than the consumption pattern before the advertisement
4. It is found that urban consumers are affected more by the advertisement.
5. It is inferred that the advertisement enables to acquire consumers' new consumption pattern amongst the rural and urban people.

References

1. Adel Salavati, Reza Shafei, Muhammad Yasser Mazhari - Surveying and Comparing the Effect of Advertising Tools on the Behavior of Consumers of Detergents(Case study in Developing Countries), European Journal of Social Sciences – Volume 17, Number 1 (2010)
2. Aneeza Bashir, Najma Iqbal Malik- Effects of Advertisement on Consumer behavior of University Students-. Proceedings 2nd CBRC, Lahore, Pakistan ,November 14, 2009
3. Engel, F. J., Blackwell, D. R., & Miniard, P. (1986). Consumer behavior. New York: CBS College Publishing.
4. Engel, F. J., Kollart, T. D., & Blackwell, D. R. (1973). Consumer behavior (2nd ed.) New York: Holt, Rincart Italic and Winston, Inc.
5. Fathi All-Share, Marwan Al Salaimh-The Effects of Television Advertisement on the Behavior of Canned Food Consumer in Small Industries European Journal of Social Sciences – Volume 16, Number 3 (2010)
6. Rajee Batra, John G. Myers, David A. Aaker, Advertsising Mnagement, Prentice Hall oof IndiaLimited,2007
7. S. A Chunawalla ans K.C sethia, Foundation of Advertising-theory and practices, Himalaya publishing house, 2006
8. Tellis, G. J. (1987). Advertising exposure, loyalty, and brand purchase: a two-stage model of choice.
9. Tellis, G. J. (2004). Effective advertising understanding when, how and why advertising works. California: Sage Publishers.