



AN EMPIRICAL STUDY ON FACTORS INFLUENCING THE BUYING BEHAVIOR OF CONSUMERS TOWARDS WASHING MACHINE IN BALASORE TOWN, ODISHA

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ABSTARCT:- *The objective of the present study is to analyze the key variables influencing the buying behavior of consumers towards washing machine. This study covered the Balasore town, Odisha. A structured questionnaire was administered to obtain information on selected variables affecting the buying behavior of the consumers. Finally, the information from 450 consumer respondents representing cross section of population was collected. The data has been analyzed by the application of appropriate statistical tools. The result reveals that the factors influencing buying behavior of consumers have significant impact on the brand preference of consumers towards washing machine. On the basis of the findings, few important suggestions were offered for the benefit of marketers and consumers.*

Key words: *Brand, Consumer Behavior, Demographic Variables, Washing Machine.*

Introduction

Marketing starts with the consumer needs and ends with consumer satisfaction. Every action of a person is based on needs. The real problem is to find out what consideration the consumer takes into account while purchasing a product and why he chooses a particular brand. The study of consumer behavior is very useful in determining the type, style, brand, trademark etc. of the product. The whole aspect of the buying behavior determines the durability, price policy and utility aspect in goods. The success or failure of marketing depends very much on target consumer's individual as well as group reaction that is marked in the buying patterns. Hence, the study of consumer behavior is really a demanding one and is very much concerned with the important factors that influence the purchasing decision of a consumer.

Statement of the Problem

The consumer behavior is the study on how individuals make decisions to spend their disposable resources in consumption related items. It is pertinent to note that consumer behavior research now center mainly on the use of goods that they buy and evaluate such goods after its use. At this stage, it is worthwhile to mention that fast changing behavior of consumers is a major test to the manufacturers as it affects their production and marketing decisions. Hence, every manufacturer and marketer should closely watch the consumer behavior on a continuous and regular basis. Moreover, such activities would provide valid indication on consumer's preferences and accordingly, manufacturers/marketers have to adjust with consumers' preferences on products those are changing with an improvement in technologies in the manufacturing process and/or changes occurred in taste and fashion. For this study, Balasore town is selected because it is one of the developed municipal towns of northern part of Odisha in which there is a great scope for marketing of household consumer durables. Hence, an attempt has been made to study the buying behavior of consumers towards washing machine in this municipal town.

Review of Literature

The review of literature is an important step in any research work. Review of earlier studies discloses the works done by individual researchers and institutions and facilitates to start with the unexplored areas of the concerned research work. Various studies related to consumer behavior, particularly in urban markets have been carried out by different social

scientists at micro and macro level in India and abroad. While there has been plethora of literature available in the area of consumer behavior, it is found that the application of latest marketing strategies in marketing of consumer durables is of recent development. The research work conducted by the eminent scholars in this area include George and Terry (1982), Barry (1992), Losarwar (2002), Verma and Kappor (2003), Harish (2007), Nabi et al. (2010), Lalitha and Kumar (2011), Bashar (2011), Thakur and Hunda (2012) and others. These studies mainly focused on the buying behavioral aspects of consumers towards consumer durables. Similarly, the well-known scholars namely Ranganatham and Shanthi (1995), Ford, et al. (1998), Selvaraj and Mahindra (2003), Shridhar (2007), Kappor and Kulshreshta (2009), Nandamuri and Gowthami (2012), Saxena and Mittal (2016) and others carried out the study on buying behavior of consumers towards selected consumer durable products and provided important suggestions for effective marketing of such durable products. Most of the studies revealed that factors influencing the consumer buying behavior have significant impact on the choice and use of durable products. Keeping in view the above issues, the present research paper made an attempt to study the factors affecting the buying behavior of consumers of Balasore municipal town of Odisha.

Objectives of the Study

The present study spells out the following objectives and they are given below.

1. To study the demographic profile of the consumer respondents of Balasore municipal town.
2. To identify the factors affecting the buying behavior of consumer respondents with regard to washing machine in the said area.
3. To offer suggestions based on the findings of the study for the benefit of consumers and manufacturers.

Scope of the Study

The present study deals with the factors influencing buying behavior of consumer durable i.e. washing machine. The study is mainly concerned with urban consumers residing at Balasore municipal town. Hence, the scope of the study is limited to one municipal town and one consumer durable product

Hypothesis for the Study

Keeping in mind the objectives set for the study, the following hypotheses are framed to test in due course of analysis.

1. H_0 : There is no significant association between the respondents age group and the preference of washing machine brand.
2. H_0 : There is no significant association between the respondents educational qualification and preference of washing machine brand.
3. H_0 : There is no significant association between the respondents annual income and preference of washing machine brand.

Research Design

The research design followed for the present research work is narrated below.

The present study has used a structured questionnaire for the purpose of collecting primary data from the consumer respondents. The secondary data were collected from books, journals, periodicals etc. For collection of primary data, purposive random sampling method was followed. The reliability of the data set was tested by using Cronbach's Alpha whose test value was found to be 0.736 and considered highly reliable. Finally, the researchers have collected responses from 450 consumer respondents. The collected data was analyzed and interpreted by using the statistical tools such as Percentage, Scaling Technique (Measurement of attributes), Chi-square test etc.

Analysis and Interpretation of Data

1. Descriptive Analysis

The demographic variables namely, gender, age, education, occupation, and annual income are taken into account to study the status of the consumer respondents participated in the survey.

Table-1: Demographic variables of consumer respondents (N=450)

Variables	No. of consumers	Percentage
Gender:		
Male	270	60.00
Female	180	40.00
Age (in years):		
20 to 30	181	40.22
31 to 45	140	31.11
46 to 60	104	23.11
Above 60	25	5.56
Qualification:		
Literate	10	2.22
10 th pass	24	5.33
12 th pass	23	5.12
Graduate	136	30.22
Post-graduate	224	49.78
Others	33	7.33
Occupation:		
Agriculture	20	4.44
Government service	158	35.11
Private service	95	21.11
Business	112	24.89
Others	65	14.45
Annual income (Rs. in lac):		
2 or less	128	28.45
2 to 4	148	32.89
4 to 6	110	24.44
6 to 8	49	10.89
Above 8	15	3.33

Source: Data collected and compiled from survey

Table 1 shows the distribution of sample respondents by their demographic variables. From the above table, it is evident that the total number of respondents is 450 and maximum respondents are male constituting 60%. The share of female respondents is 40%. It implies that the sample is unequally distributed gender wise with dominance of male respondents. It is further revealed that the maximum respondents i.e. 181 are in the age group of 20-30 years constituting 40.22%. It is followed by age group of 31-45 years with 31.11%. It is observed that among 450 respondents, 224 i.e. 49.78% belong to the category of post-graduates. At the same time 30.22 respondents are Graduates. It can be said that majority of the sample respondents are from post-graduate or graduate category. From the above table, it is further observed that 35.11% consumer respondents are from government service followed by 24.89% in business category. From this, it can be noted that government service holders are the maximum participants in the total sample. The table also reveals that there are 148 i.e. 32.89% consumer respondents in the annual income group between Rs. 200001 and Rs. 400000. Respondents earning below Rs.200000 income are 128 in number i.e. 28.45%. It can be stated that majority of the consumer respondents are in the annual income group of Rs. 200001- Rs. 400000.

2. Inferential Analysis

The consumer behavior towards purchase of washing machine has been discussed below taking into account selected key variables influencing the buying behavior of consumer respondents.

i. Choice of brand

Table-2: Distribution of consumers based on washing machine brand

Brand name	No. of consumers	Percentage
Onida	50	11.11
Samsung	120	26.67
LG	90	20.00
Kelvinator	15	3.33
Godrej	75	16.67
Videocon	20	4.44
Whirlpool	45	10.00
Electrolux	3	0.67
Voltas	20	4.44
Lloyds	4	0.89
Heir	3	0.67
Others	5	1.11
Total	450	100

Source: Data collected and compiled from survey

The table-2 shows the distribution of sample respondents by their washing machine brands. Among 450 consumer respondents, Samsung brand has maximum users i.e. 120 or 26.67% and Electrolux brand has minimum users i.e. 3 or 0.67%. Similarly, Onida brand has 50 numbers of users or 11.11%, LG brand has 90 numbers of users or 20% and Kelvinator brand has 15 numbers of users or 3.33%. Godrej, Videocon, Whirlpool, Voltas and Heir have 75 numbers of users or 16.67%, 20 numbers of users or 4.44%, 45 numbers of users or 10%, 20 numbers of users or 4.44% and 3 numbers of users or 0.67% respectively. From the above data, it can be concluded that more number of consumer respondents are using Samsung brand of washing machine.

ii. Use of model

Table-3: Distribution of consumers based on washing machine type/model

Type/model	No. of consumers	Percentage
Top Loading	225	50.00
Front Loading	145	32.22
Others	80	17.78
Total	450	100

Source: Data collected and compiled from survey

The table-3 clearly indicates that maximum consumer respondents i.e. 50% use top loading washing machine, while 32.22% consumer respondents use front loading washing machine. Further, 17.78% consumer respondents use other types of washing machine. It can be concluded here that top loading washing machine is being used by 50% consumer respondents.

iii. Period of Use

Table-4: Distribution of consumers based on period of use of washing machine

Period of use	No. of consumers	Percentage
More than 5 Years	270	60.00
3-5 Years	95	21.11
1-3 years	60	13.33
Up to One Year	25	5.56
Total	450	100

Source: Data collected and compiled from survey

From the table-4, it is observed that 270 consumer respondents i.e. 60% and highest among all respondents say that they are using washing machine for more than 5 years. The second highest percentage is 21.11 i.e. 95 customer respondents use washing machine for 3-5 years. Similarly, 13.33% consumer respondents use the washing machine for 1-3 years. Few consumer respondents numbering to 25 use the same for a period up to one year. From this, it can be concluded that majority of the consumer respondents use the washing machine product for more than 5 years.

iv. Change of Brand

Table-5: Distribution of consumers based on change of washing machine brand

Change of brand	No. of consumers	Percentage
Yes	405	90.00
No	45	10.00
Total	450	100

Source: Data collected and compiled from survey

The table-5 shows that maximum consumer respondents i.e. 405 have changed washing machine brand where as 45 consumer respondents have not changed the brand. In other words, consumers when they find new brands with additional features go on changing the washing machine brand.

v. Medium of Purchase

Table-6: Distribution of consumers based on medium of purchase of washing machine

Medium of purchase	No. of consumers	Percentage
Cash	370	82.22
Installment	50	11.11
Credit	30	6.67
Total	450	100

Source: Data collected and compiled from survey

From the table-6, it is revealed that 80.22% consumer respondents purchase washing machine on cash basis, 11.11% consumer respondents purchase on installment and 6.67% consumer respondents purchase on credit basis. It can be inferred that maximum consumer respondents prefer to purchase on cash basis.

vi. Sources of Information

Table-7: Distribution of consumers based on sources of information on brand

Source	No. of consumers	Percentage
Television advertisement	245	54.44
Advertisement in the news paper	58	12.89
Radio advertisement	27	6.00
Magazine	40	8.89
Neighbors	30	6.67
Friends	40	8.89
Colleagues	5	1.11
Others	5	1.11
Total	450	100

Source: Data collected and compiled from survey

From the table-7, it is seen that maximum consumer respondents i.e. 54.44% know about the brand through television Advertisement followed by Advertisement in newspaper whose contribution is 12.89%. However, least preferred source of information about the brand is colleagues and other sources. From this, it can be inferred that majority of the consumer respondents come to know the washing machine brand from television Advertisement only.

vii. Final Decision Maker for Selecting Brand

Table-8: Distribution of consumers based on final decision maker for selection of washing machine brand

Decision maker	No. of consumers	Percentage
Friends	34	7.56
Relatives	54	12.00
Senior family members	135	30.00
Self	205	45.56
Others	22	4.88
Total	450	100

Source: Data collected and compiled from survey

The table-8 shows that 45.56% consumer respondents which are highest among five decision maker groups take decision by them to purchase the washing machine. While 30% consumer respondents leave the decision to the senior family members. It can be inferred that most of the consumer respondents take the final decision to purchase the product by them only.

viii. Preferred Place of Purchase

Table-9: Distribution of consumers based on preferred place of purchase

Purchase place	No. of consumers	Percentage
Known retailer	155	34.44
Multi brand retailer	140	31.11
Company's show room	110	24.45
Nearby retailer	40	8.89
Other place	5	1.11
Total	450	100

Source: Data collected and compiled from survey

The table-9 shows the customer preference about the place where they purchased washing machine. There are 34.44% customer respondents who prefer to purchase the product from known retailer. Similarly, 31.11% customer respondents purchase the product from multi brand retailer. On the other hand, 24.45% consumer respondents prefer to purchase it from company's show room. Lastly, 8.89% and 1.11% consumer respondents like to purchase from nearby retailers and other places respectively. From this, it can be concluded that majority of the consumer respondents prefer to purchase the washing machine from known retailers and multi brand retailers.

ix. Level of Satisfaction of Consumer Respondents

Table-10: Satisfaction level of consumer respondents towards washing machine brand

Response	Frequency	Percentage
Highly satisfied	48	10.67
Satisfied	165	36.67
Neutral	210	46.67
Dissatisfied	15	3.33
Highly dissatisfied	12	2.67
Total	450	100

Source: Data collected and compiled from survey

The table10 depicts the level of satisfaction of the consumer respondents on the performance of washing machine. It is observed from the above table that 47.34 percent consumer respondents express their satisfaction on the product performance. However, 46.67 percent consumer respondents remain neutral on the product performance. On the other hand, only 6% consumer respondents feel dissatisfied/highly dissatisfied on the product performance.

Testing of Hypotheses

The following hypotheses have been tested with the help of chi-square test.

1. H_0 : There is no significant association between the respondents age group and the preference of washing machine brand.

Table-11: Chi-square test value

Sl. No	Particular	Chi-square calculated value	D. F	Chi-square tabulated value(5% level of significance)	Inference
1	Age and Washing machine	0.142	33	47.39	Accepted

The table-11 shows the association between the age of respondents and preference for washing machine brands. From the table, it is observed that the Pearson chi-square is 0.142 which is less than 47.39. Through this, it is felt necessary to test “is there any significant association between the respondents’ age and preference for washing machine brands”. Since, the calculated value is less than the critical value at 5% level of significance; the null hypothesis may be accepted. It means that there is no significant association between the respondents’ age and preference of washing machine brand.

2. H_0 : There is no significant association between the respondents educational qualification and preference of washing machine brand.

Table12: Chi-square test value

Sl. No	Particular	Chi-square calculated value	D. F	Chi-square tabulated value(5% level of significance)	Inference
1	Washing machine and Education	0.003	55	73.31	Accepted

The table12 shows the association between the educational qualification of respondents and preference for washing machine brands. From the table, it is observed that the Pearson chi-square is 0.003 which is less than 73.31. From this, it is felt necessary to test “is there any significant association between the respondents educational qualification and preference for washing machine brands”. Since the calculated value is less than the critical value at 5% level of significance, the null hypothesis may be accepted. It means that there is no significant association between the respondents’ educational qualification and preference of washing machine brand.

3. H_0 : There is no significant association between the respondents’ annual income and preference of washing machine brand.

Table-13 : Chi-square test value

Sl. No	Particular	Chi-square calculated value	D. F	Chi-square tabulated value(5% level of significance)	Inference
1	Annual income and Washing machine	1.155	44	60.48	Accepted

The above table-13 depicts the association between annual income of respondents and preference for washing machine brands. From the table, it is observed that the Pearson chi-square is 1.155 which is less than 60.48. From this, it is felt necessary to test "is there any significant association between the respondents' annual income and preference for washing machine brands". Since the calculated value is less than the critical value at 5% level of significance, the null hypothesis may be accepted. It means that there is no significant association between the respondents' income and preference of washing machine brand.

Findings of the study

The major findings of the descriptive and inferential analysis of the study are presented below.

Descriptive Analysis

The demographic profile of the consumer respondents reveals that out of the total respondents 60% are male and the remaining 40% are female respondents participated in the survey. There are 181 respondents (40.22%) whose age group is in between 20 and 30 years. Similarly, the maximum respondents' educational qualification is post- graduate i.e.224 (49.78%). It is observed that government service holders constituting 35.11% are the maximum respondents in the total sample. Further, more than 60% respondents belong to the income category of Rs. 200000 – Rs. 400000 or below Rs. 2, 00,000.

Inferential Analysis

In respect to purchase behavior of consumer respondents towards washing machine, 26.67% respondents choose Samsung washing machine followed by LG brand with 20%. 50% respondents use top loading washing machine model followed by 32.22% with front loading model. Similarly, 60% consumer respondents use the washing machine for a period of more than 5 years. On the issue of change of brand, about 90% consumer respondents stated that they have changed the brand of washing machine. Similarly, with regard to medium of purchase, 370 respondents or 82.22% respondents purchased the product by paying cash. Further, 245 respondents or 54.44% of the total sample respondents come to know the product from television advertisement. With regard to final decision to purchase the washing machine, 45.56% respondents take the decision by themselves. Further, about 65.55% respondents prefer to purchase the washing machine from their known retailer or multi brand retailer. Lastly, on the issue of level of satisfaction, 47.34% consumer respondents feel either satisfied or highly satisfied on the performance of washing machine used by them.

Conclusion

The purchasing behavior of consumer respondents reveals that while buying the washing machine they are very much aware of the brand. When there is availability of new brand with additional features, they prefer to change the brand. Most of the consumer respondents look for information about the product from television advertisement. Further, the consumers rely on their known retailers for selecting the product. In maximum cases, the final decision to purchase the product lies on the consumer respondents. The study also reveals that the majority of the respondents express their satisfaction on the performance of the washing machine used by them. It is further observed from the analysis that the factors influencing the buying behavior differ from consumer to consumer. However, the findings confirm that there is a significant association between factors affecting buying behavior of consumers and their preference of brand. Keeping in view the above issues, the marketers should develop suitable marketing strategies to persuade the consumers to purchase durable products.

Suggestions

1. Marketers should develop consumer profile to understand the characteristics of target market. Since the demand for consumer durable products is growing day by day, the manufacturers should focus on the potential markets. Also appropriate marketing strategy should be formulated on the basis of demographic factors.
2. It is revealed from the study that the consumers are giving less importance to other leading brands/ products. The marketers should try to position their brands through innovative marketing strategies.
3. It is noticed from the study that consumers are consulting the retailers before purchasing the product and retailers are playing an important role as advisors for brand selection. Hence, the manufacturers should involve the retailers in all promotional activities. This will prove to be more beneficial because from manufacturing to consumption, the retail outlet is the key linkage.

4. The product attributes and brand knowledge play a vital role in determining the behavior of consumers. Therefore, it is suggested that the manufacturing companies may advertise the products by giving more emphasis on product attributes.
5. It is revealed from the study that brand plays an important role in the psyche of consumers; brand building is more important in marketing of consumer durables. Companies should remember that “Brand is Supreme” and accordingly, build the brand equity.

Limitations of the Study

Descriptive research study, particularly using the survey method of collecting data is subject to certain limitations. So this piece of work is not an exception. The present research work is based on the data collected from the consumer respondents. The views expressed by the respondents may be biased one. Hence, the conclusion drawn on such information is one of the limitations of the study. The selection of Balasore municipal town where the study has been carried out is another limitation from the limited area coverage point of view. The statistical tools and techniques used in the study do have their own limitations. Besides this, the resource and time factors are the other limitations for carrying out the present study. In spite of all these limitations, an honest and sincere attempt has been made to make the study a systematic and reliable one.

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