



International Journal of Intellectual Advancements and Research in Engineering Computations

A study on customer satisfaction towards reverse osmosis system offered by eureka forbes among household in Erode

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ABSTRACT

Reverse Osmosis (RO) is a membrane based process technology to purify water by separating the dissolved solids from feed stream resulting in permeate and reject stream for a wide range of applications in domestic as well as industrial applications. It is seen from literature review that RO technology is used to remove dissolved solids, colour, organic contaminants, and nitrate from feed stream. Hence RO technology used in the treatment of water and hazardous waste, separation processes in the food, beverage and paper industry, as well as recovery of organic and inorganic materials from chemical processes as an alternative method. This paper intends to provide an overall vision of RO technology as an alternative method for treating wastewater in different Industrial applications.

INTRODUCTION

Reverse Osmosis (RO) is a process that uses semipermeable spiral wound membranes to separate and remove dissolved solids, organic, pyrogens, submicron colloidal matter, color, nitrate and bacteria from water. Feed water is delivered under pressure through the semi permeable membrane, where water permeates the minute pores of the membrane and is delivered as purified water called permeate water. Impurities in the water are concentrated in the reject stream and flushed to the drain is called reject water. These membranes are semi-permeable and reject the salt ions while letting the water molecules pass. The materials used for RO membranes are made of cellulose acetate, polyamides and other polymers. The membrane consists of hollow-fiber, spiral-wound used for treatment; depend on the feed water composition and the operation parameters of the plant. Reverse Osmosis (RO) is a membrane based process technology used for desalination. Membrane-based seawater desalination and wastewater reuse are widely considered as

promising solutions to augment water supply and alleviate water scarcity (S. Lee et al., 2010). The most common membrane processes used are the reverse osmosis (RO) and the electro dialysis (ED) used for brackish water desalination, but only RO competes with distillation processes in seawater desalination (Kalogirou, 2005).

OBJECTIVES OF THE STUDY

1. To identify the demographic profile of the respondents
2. To rank the problems faced by customers towards reverse osmosis system.

STATEMENT OF THE PROBLEM

The main purpose of the study is to know about the customer satisfaction level of reverse osmosis system offered by eureka forbes. Customer satisfaction provides an indicator of customer purchase intentions and loyalty. So, customer retention is major problem in the organization. To

overcame the problem of customer switch-over to other brands, study of customer satisfaction plays a vital role. For making further improvements added features in the product for the benefit of customer, customer satisfaction was taken as a main sources for this research.

SCOPE OF THE STUDY

1. The study can be helpful for the organization in taking decision so as to improve the approach towards the customers for getting reference and services.
2. The scope of the project helps in analyzing the factors, which influence the referral behavior of customers.
3. The study will be helpful for the organization to identify the loyalty of existing customers.

LIMITATION OF THE STUDY

- ❖ The consumers were reluctant to answer the question and the response may be biased.
- ❖ Due to limited time span it was tedious to take survey from the respondents

LITERATURE REVIEW

There are many water filtration products in existence today. However, none of these products fully satisfy the needs of families in rural areas with a lack of clean drinking water. All of the following products require either large sums of money or extensive maintenance, and some products don't even come with a guarantee of potable water. There are many filters that claim to clean water (carbon filters, Brita filters). One type of filter that is in existence is the Brita water filter. This widespread at-home filtration system is very small and can quickly produce enough water for a household. However, the Brita water filter is only applicable to affluent countries because it can only filter aluminum (placed there by existing water treatment facilities during the chlorination process), and reduces the concentration of calcium, chlorine, magnesium, bad tastes, and odors. All of these operations are mere luxuries that affect only the taste and smell of water, but do not actually filter out bacteria or make the water safer to drink.

In general, the Brita type water filters (Figure 1) count on desalination systems and/or industrial reverse osmosis plants to decontaminate the water.

RESEARCH METHODOLOGY

Research methodology

The process used to collect information and data for the purpose of making business decisions. The Methodology may include Publication Research, Interviews, Surveys and Other Research Techniques and could include both Historical and Present Information.

Research design

Research Design refers to the overall strategy that we choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring that we will effectively address the Research Problem.

It constitutes the blueprint for the Collection, Measurement and Analysis of Data.

Types of research

The Research Type used in this Study is Descriptive, which is used to describe characteristics of a population or phenomenon being studied.

Sample design

1. Sampling is the process of selecting a sufficient number of elements from the population.
2. A Sample Design is a definite plan for obtaining a sample from the sampling frame.

Sampling method

Probability sampling

Probability sampling is a sampling technique where the samples are gathered in a process that will have all the individuals in the population of getting equal chances of being selected.

Simple random sampling

A simple random sample is a subset of a statistical population in which each member of the subset has an equal probability of being chosen.

DATA COLLECTION

Data Collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research question, test hypotheses and evaluate outcomes.

Primary data source

- ❖ A Primary Data Source provides direct or firsthand evidence about an object, person or work of art. It includes Historical & Legal Documents, Eyewitness Accounts, Results of Experiments, Statistical Data, Audio and Video Recordings, etc.
- ❖ Using Questionnaire, which is a set of printed or written questions with a choice of answers, devised for the purpose of a survey or statistical study, We Collected the Data.

Secondary Data Source

- ❖ The data that was originally collected for other research are called Secondary Data Sources.
- ❖ We Referred Articles, Journals & Magazines as mentioned in the Bibliography.

Data analysis

SIZE OF THE SAMPLE

The Sample size is 100.

TOOLS USED

The Tools used in the Study includes

Simple percentage analysis:

Simple Percentage Analysis is the method to represent raw streams of data as a percentage (a part in 100-percent) for better understanding of collected data.

FORMULA

$$\text{Percentage analysis} = \frac{\text{Number of respondents}}{\text{Total number of respondents}} \times 100$$

Henry garrett ranking

Garrett's ranking technique to find out the most significant factor which influences the respondent, Garrett's ranking technique was used respondents.

Table 1: Demographic profile of the respondents

Details of the respondent		No. of Respondents	Percentage
Gender	Male	41	41
	Female	59	59
	Total	100	100
Age (in years)	20-25years	49	49
	26 – 35 Years	27	27
	36 – 45 Years	16	16
	Above 45Years	8	8
	Total	100	100
Monthly Income	Below 5000	12	12
	5000 – 10000	26	26
	Total	100	100

	10000 – 20000	49	49
	Above 20000	13	13
	Total	100	100
Educational qualification	School level	8	8
	Under graduate	53	53
	Post graduate	39	39
	Others	0	0
	Total	100	100

Interpretation

From the above table it is evident that percentage of gender male 41% female 59%, age

group 20-25 years is 49% , monthly income 10000-20000 is 49%,educational qualification under graduate is 53%,

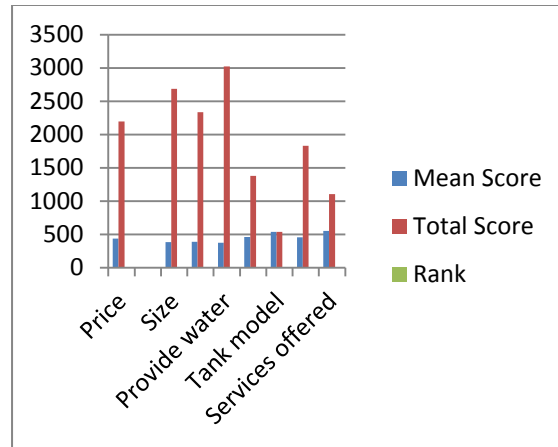
Table 2: Problems faced by respondents while using reverse osmosis system

S. No	Problems faced	Mean Score	Total Score	Rank
1	Price	439	2195	4
2	Size	384	2688	2
3	Removes salt	389	2334	3
4	Provide water	378	3024	1
5	Guarantee	460	1380	6
6	Tank model	537	537	8
7	Complete purification of water	458	1832	5
8	Services offered	552	1104	7

Intrepretation

From the above table it was evidence that “provide water” is ranked as no.1, “size” is ranked as no .2, “removes salt” is ranked as no.3, “price”

is ranked as no.4, “Complete purification of water” is ranked as no .5, “guarantee” is ranked as no.6, “services offered” is ranked as no.7, “tank model” is ranked as no.8.



Bar chart no: 1 Problem faced by respondents while using reverse osmosis system.

FINDINGS

- 1) "Provide water" is ranked as no.1 with total score of 3024
1. "Size" is ranked as no .2 with total score of 2688
2. "Removes salt" is ranked as no.3 with total score of 2334
3. "Price" is ranked as no.4 with total score of 2195
4. "Complete purification of water" is ranked as no .5 with total score of 1832
5. "Guarantee" is ranked as no.6 with total score of 1380
6. "Services offered" is ranked as no.7 with total score of 1104
7. "Tank model" is ranked as no.8 with total score of 537

SUGGESTIONS

1. The frequency of advertisement in the mass media like Television, Newspapers is not up to satisfaction. So the company wants to give more advertisement in suitable media.
1. Some of the respondents feel the company can not give offer. So the company can give more offer period to consumer and also provide guarantee to the product.
2. Efforts to be taken to popularize the product, product variants, product prices, product differentiation, service, service differentiation through appropriate publicity measures.

3. Care should be taken to improve the service efficiency that aids to retain the existing customers.
4. The company should take some measures to reduce power consumption and frequently filter change.
5. The company should reduce the longer time consumption in purification of water.
6. The company can also think on providing low price models in order to cover all the class of customers from middle class to upper class customers and also to compete with existing players in the market. The middle class segment is the segment, where the company can see maximum sales.

CONCLUSION

Marketing plays a pivotal role in the development of country. The development of marketing has always kept pace with the economic growth of the country. Now the modern marketing faces the high competition in their activities. Competition is the order of the day. Earning profit is possible only through consumer's satisfaction. The company should ensure its systems like advertisement, power consumption, service, guarantee period and compliant redressal are designed to achieve excellence and customer delight. The research of the study reveals that consumer's satisfaction on water purifier after comparing all the water purifier Eureka Forbes has the top place. Because factors like remove salt,

size, complete purification of water etc., are liked by the customers. The above said points in the

suggestions should be rectified. So that the company can be reached at high level.

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