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**A STUDY ON PRE PURCHASE BEHAVIOUR FOR
INDUSTRIAL WATER TREATMENT PLANT WITH
REFERENCE TO AHMEDNAGAR AND PUNE DISTRICT**

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ABSTRACT

The purpose of this study is to study pre purchase behaviour of industrial consumers in Ahmednagar and Pune District. The questionnaires were given to 20 industrial consumers who use industrial water treatment plant. Out of 20 consumers contacted, 15 questionnaires were received with required coverage and details. The instruments of this study involved two parts: the first section of the instrument consisted of forced-choice questions about basic characteristics of the organization. The second section consisted of variables to measure the pre purchase consumer buying behaviour. The Statistical Package for the Social Science (SPSS) for Microsoft Windows 17.00 was used to complete the analysis of the collected data. Descriptive statistics, including means, standard deviations were implemented in order to investigate the demographic data, one-way analysis of variance (ANOVA) were used to determine whether any significant relationships exist among respondents. In addition, the .05 level of statistical significance was set at all statistical tests in the present study. The findings of the study were generalized as follows: Statistically significant differences were found in the age(duration of operation) of organization and pre purchase decision . Similarly no significant association was found out between amount of water needed in the organization and pre purchase decision. In the end of the study implications and conclusion were provided.

Keywords: Consumer Behavior, Pre purchase decision, Industrial Consumer, Buying Behavior.

INTRODUCTION

The buying behaviour of organizations can be defined as the rational decision-making process in which organization buys goods and services when they have need of any goods or service for their organization. The purchased products and services get identified, evaluated, and chosen among alternative brands and suppliers. Organizational buying is similar to the consumer buyer behaviour without any major differences. Organizations buy the products and services for the betterment of organizational objectives such as manufacture and deliver goods and services to members, customers or the community. Three types of buying situation have been distinguished: the straight rebuy, the modified rebuy, and the new task. The straight rebuy: It is the buying condition in which the buyers buy the product frequently. Buying of those products will be a routine task for the organization. The modified rebuy: A business buying condition in which the buyer wants to change the product specification, its price as well as terms or suppliers. The new task: When the organization buys any products or services for the first time then it is called new task. In this cases, the larger the cost, there

will be more decision participants and also there will be more efforts for collecting information. The new task situation creates more opportunity as well as challenges.

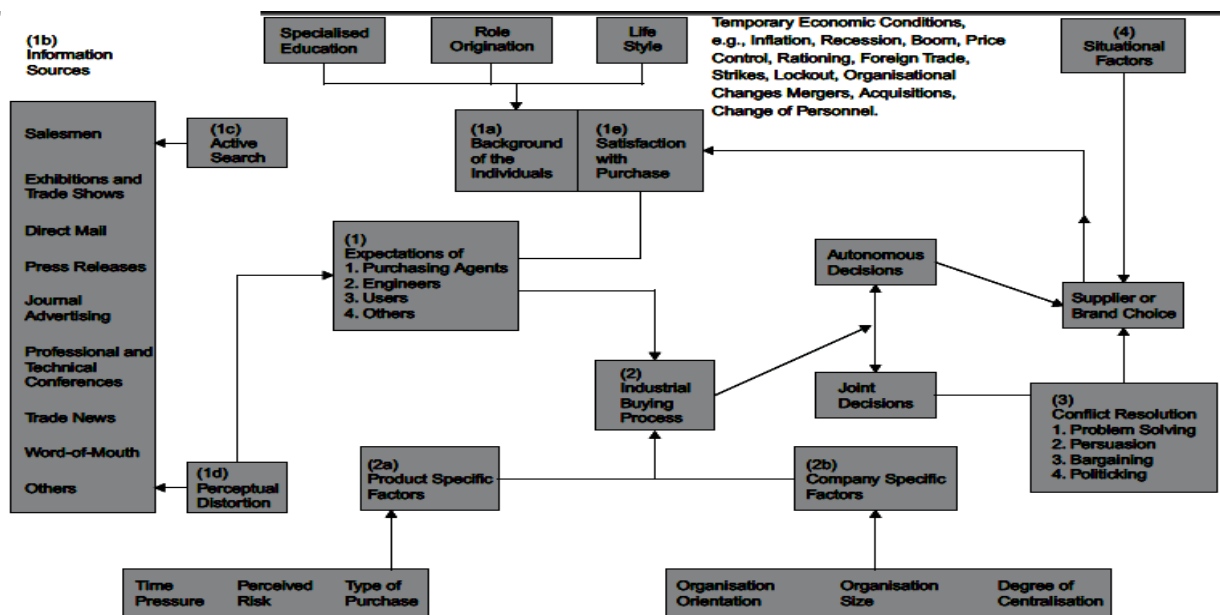
In recent years many conceptual and methodological developments have contributed to the understanding of industrial organizations as consumers. Yet there is still a lack of purpose and no sense of direction to much of the research in the area of industrial marketing/organizational buying behaviour. Industrial (or business) buyers are influenced by many factors when they make buying decisions. Generally, business buyers are influenced by organisational factors or task-oriented objectives (like best product quality, or dependable delivery, or lowest price) and personal factors or non-task objectives (like promotion, increments, job security, personal treatment, or favour). When the suppliers' proposals are substantially similar, organisational buyers can satisfy organisational objectives with any supplier, and hence personal factors become more important. When suppliers' offers differ substantially, industrial buyers pay more attention to organisational factors in order to satisfy the organisational objectives. This paper aims to explore the recent developments in the information processing as they may apply to organizational buying behaviour and pre purchase decision making.

MODEL OF INDUSTRIAL BUYER BEHAVIOUR

The purchases made in an industrial organization involve many more people of different backgrounds and it is more complex. There are three main features in this model:

1. There are different individuals involved who have a different psychological makeup.
2. Conditions leading to joint decision-making by these individuals.
3. Differences of opinion on purchases or conflicts that have to be resolved to reach a decision.

These are shown in Fig as (1), (2) and (3). The persons involved in the decision-making are from quality control, manufacturing, finance, research and development and other possible areas. These may be named as purchase agents, engineers, and users, as referred to in the model. These constitute a purchasing committee. They have:



An integrative model of industrial buyer behaviour

Source: www.wisdomjobs.com/e-university/consumer-behaviour-tutorial-94/10-dot-a-model-of-industrial-buyer-behaviour-10586.html

(1a) Different backgrounds (1b) Different information sources(1c) Undertake active search(1d) They have perceptual distortion(1e) Satisfaction with past purchase.

With these characteristics, they develop certain expectations from the product to be bought. The obvious ones are product quality, delivery time, quantity of supply, after sales service and price. These are known as explicit objectives. There are other objectives as well, which are the reputation of the supplier, credit terms, location of the supplier, relationship with the supplier, technical competence and even the personality, skill and lifestyle of the salesman. These are known as implicit objectives. Different individuals in the purchasing committee give emphasis on different aspects of the product. Engineers look for quality and standardization of the product. Users think of timely delivery, proper installation and after sales service. Finance people look for maximum price advantage. Thus, there are conflicting interests and view that have to be resolved. If autonomous decisions are made, these issue do not surface. There are conditions leading to autonomous or joint decisions.

(2a) Product specific factors Perceived risk: With higher risks joint decisions are favoured. Type of purchase: Items involving heavy investments are made jointly, routine and less costly decisions can be made independently. Time pressure: If goods are urgently required, individual decisions are favoured.

(2b) Company specific factors Size of the organization: Larger the size of the organization, the more the emphasis laid on joint decision. Organization orientation: In a manufacturing organization, the purchases are dominated by production personnel and in a technology oriented organization; the decisions are based on engineers. The conflict that arises for buying decision has to be resolved. The resolution can be done by:

Problem solving Persuasion Bargaining Politicking

The fourth aspect is the influence of situational factors which must be considered. These are economic conditions such as inflation, recession or boom, price contracts, rationing foreign trade, strikes or lock outs. Organizational change such as a merger, acquisition change of key personnel, etc. Sometimes these factors outweigh the realistic criteria of decision-making. This model explains how purchase decisions are made in an industrial organization.

OBJECTIVES

1. To gain in depth insight of and analyse the factors that influence industrial consumer choices of industrial water treatment plant.
2. To examine the pre purchase decision making pattern of industrial consumers in selecting the water treatment plant.

HYPOTHESIS

1. There is a significant difference between the age of the organization and pre purchasing behavior of water treatment plant.
2. There is no significant association between the amount of water needed in the organization and pre purchase intention of water treatment plant.

LITERATURE REVIEW

From a holistic perspective, according to The Chartered Institute of Marketing, understanding buying behaviour involves a consideration of the needs of the customers– both individual and corporate – as well as what motivates them to purchase. Buying behaviour includes a series of steps from the need identification to the moment of purchase. Kotler (1988) defines buying behaviour as a study of what, when, where, how and how often people buy a product (e.g. a good or service).

Gupta (2006) defined consumer behaviour “as a study of a complex of those factors which resulted in particular buying decisions of consumers based on rationality, emotions or compulsion. According to him, a study of consumer behaviour is likely to reveal whether target consumers of the enterprise emphasize more on the price of the product or its quality. On this basis, suitable pricing strategies and

programmes aimed at upgrading the quality of organizations products to suit the needs, habits and behaviour of consumer will be put in place.

Kotler and Armstrong (2013), Consumer buying behaviour refers to the buying behaviour of the individuals and households who buy goods and services for personal consumption. Consumers around the world are different in various factors such as age, income, education level and preferences which may affect the way they avail of goods and services. This behaviour then impacts how products and services are presented to the different consumer markets. There are many components which influence consumer behaviour namely; cultural, social, personal, and psychological.

Ekerete (2005), describe business or organizational consumers as those organizations that buy goods and services either for use in making other goods and services or for use in facilitating their business operations. Business or industrial goods are those goods intended for use in making other products or for rendering a service in the operation of an organization.

Achison (2000) identified four major influences in the buying behaviour of consumers namely- individual, social organizations and environmental. Each of these variables according to him, in turn is influenced by both task and non task variables. Task variables are those that are directly related to buying problems (product, quality, price, delivery and total offering utilities), while Non task variables are those that extend beyond the buying problems (person factors, recognition, and others). The influencing factors have long been expanded to include. 1. Personal: individual influences (desire to obtain lowest possible price, personal values and need,) 2. Social: Interpersonal (meeting to set specification) 3. Environmental: anticipated change e.g. Price, demand legal and political 4. Organizational: structure, objectives. In spite of the above, purchase behaviour are also affected by other factors.

Assael (1984) identified two major influences in the industrial consumer buying behaviour namely. 1. Industrial buyer influence such as consumer demographic lifestyles, attitudes, needs and personality. 2. Environmental influences or factors external: This relates to individuals like family, culture and reference group. By implication one can include the state of the nation economy.. He concluded that a consumer could be influenced by three major factors. Sociological, psychological and environmental factors and they combine to determine the activities of individuals and groups in obtaining and consuming goods and services. The sequence of decision processes that follow this act is also an essential component of buying behaviour.

Maheswari, M. Uma; Jebanesan, M. Jezer (2013) in their study of consumer behaviour in the changing scenario of the Indian consumer market have focused on pre-purchase information search behaviour of rural pre-owned car owners in Kanniyakumari district, Tamil Nadu. Burgeoning growth of the new car market and the reduced tenure of car ownership resulted in wider availability of used cars. This study is significant as the pre-owned car consumers are potential new car buyers and their experience with a pre-owned car will have a definitive influence on future car purchase decisions. The study has been undertaken with two objectives; to assess the socio-economic and demographic profile of rural pre-owned car owners in Kanniyakumari district and to examine the pre-purchase information search behaviour of rural car owners. Primary and secondary data have been used. The primary data have been collected through structured questionnaire. Judgement sampling method was adopted to select 200 used car owners. Descriptive statistics and Garrett's ranking technique were used for analysis. The pre-owned car market in the study area is dominated by individuals. Pre-owned car was bought due to lower price after brand evaluation but with apprehension on mind. The pre-owned car market can be made organized by proper registration of dealers. To overcome the challenges in reaching rural consumers, the car marketers can formulate effective rural marketing strategies.

A study by Voss and Parasuraman (2003) suggests that the purchase preference is primarily determined by price than quality during pre-purchase evaluation. Given explicit quality information, price had no effect on pre-purchase or post-consumption quality perceptions. Instead, post consumption quality evaluations had a favourable impact on price evaluations.

Another study by Chernev (1997) analyzed the effect of common features on brand choice and the moderating role of attribute importance. It is argued that when brand attributes differ in importance, with the best value on the most important attribute, thus further polarizing brands' choice shares. In contrast, when attributes are similar in their importance, common features are likely to have an opposite effect, equalizing brands share.

Reese, R. M., & LaForge, M. C (1995) in their study, a basic model of consumer decision-making was employed to examine for differences among diverse life stage groupings in processes leading to a purchase. Over 400 National Family Opinion households recently involved in the selection process for a financial services provider reported motivating factors and activities undertaken to bring about need satisfaction. Findings suggest pre-purchase behaviour is moderated by age and the presence of adult companions and/or children, with age being the primary moderating factor.

METHODOLOGY

Present research is longitudinal in nature and tried to focus on pre and post purchase aspects of consumer decision making. The study was dedicated to gain insights into the purchase behaviour of industrial organizations. The research instrument used for the study included structured questionnaire. The instruments of this study involved two parts: the first section of the instrument consisted of forced-choice questions about demographic characteristics. The second section contains variables chosen for this study in order to measure the influence of consumer buying behaviour in selecting water treatment plant. Cronbach's alpha is a coefficient (a number between 0 and 1) that is used to rate the internal consistency (homogeneity) or the correlation of items in a test. If the test has a strong internal consistency most measurement experts agree that it should show only moderate correlation among items (0.70 to 0.90). The reliability coefficients for the variables chosen for the study should have to be more than 0.70, to consider it as an acceptable value.

Table-1 Reliability Statistics

Cronbach's Alpha	N of Items
.933	16

In this study the Reliability analysis shows that all the factors have shown alpha value greater than 0.7, indicating the evidence of reliability and the overall reliability of the instrument is 0.93. So, the items constituting each variable under study have reasonable internal consistency and shows that all the dimensions of consumers buying behaviour have a positive reliability. The factors and dimensions included for analysis carry a good degree of reliability to support the objectives formulated. All dimensions have got significant relationship to make the real representation of the study. Hence it is concluded that the data collected in this study is highly reliable.

DATA ANALYSIS

Total sample size for the customers is 15. For the analysis of the data, researchers used basic techniques of Statistics such as mean, standard deviation, variance, etc; Hypothesis testing is carried out through one way ANOVA,

Table 2- Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Reputation of manufacturer (Brand)	15	3.00	5.00	3.8667	.63994
Cost (Price)	15	2.00	5.00	4.1333	1.12546
Return on investment	15	2.00	4.00	3.6667	.61721

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Warranty period	15	2.00	5.00	4.1333	.99043
Reference from existing customers of the Water Treatment Plant	15	2.00	5.00	3.6667	.81650
After sales service performance	15	2.00	5.00	4.2000	1.08233
Operation Mode (Automatic/ Semi-Automatic)	15	2.00	5.00	3.8000	.86189
Output Capacity (liter of water)	15	2.00	5.00	4.2667	1.16292
Water recovery rate	15	2.00	5.00	4.4000	.91026
Valid N (listwise)	15				

From the above table, the items show the factors that the organization considers before making a purchase. When comparing the mean score values per variable, it is evident that their deviation from a maximum attainable score value of five reflects room for improvement. It is clear that cost, warranty period, after sales service, output capacity and water recovery rate are some of the factors that play a major role in decision making of the organization.

H1: There is a significant difference between the years of the organization and pre purchasing behavior of water treatment plant.

Table 3- One way ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	13.708	3	4.569	30.932	.000
Within Groups	1.625	11	.148		
Total	15.333	14			

The results of one-way ANOVA, however, show that significant differences existed between the age (no years of operation) of the organization and pre purchasing behaviour of water treatment plant. Thereby rejecting the null hypotheses. Various Organizations (according to their years of operation) who prefer in using the services of water treatment plant do spend significantly as per their needs. The results are statistically significant and they are in expected direction.

H2: There is significant association between the amount of water needed in the organization and pre purchase intention of water treatment plant.

Table 4- One Way ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.108	3	.703	.665	.591
Within Groups	11.625	11	1.057		
Total	13.733	14			

The results of one-way ANOVA, however, show that no significant association is found among the opinion of industrial consumers between the amount of water needed by organization and the pre purchase intention of water treatment plant. It is seen in the study that other variables such as cost, after sales service play a major role in the pre purchase decision making .Here the alternative

hypothesis rejected and null hypothesis accepted. Although the relationship is in expected direction, ANOVA results do not show the nature of differences among the industrial consumers.

CONCLUSION

Consumer behaviour consists of all human behaviour that goes in making before and after purchase decisions. One can succeed in the competitive market only after understanding the complex consumer behaviour. An understanding of the consumer enables a marketer to take marketing decisions which are compatible with its consumer needs. This learning attempts to gaze at and scrutinize the industrial consumer's mindset in making the purchase decision. Investment is considered as one of the crucial decision being affected by various factors. If the investment doesn't brings fruitful results then it will adversely affects the company's liquidity and solvency position. Investment in water treatment plants is also affected by various factors like your scale of business, purchasing budget, Water treatments methods being used in company premises, environmental factors and other welfare activities being carried on in the organization .This study generated new insights of industrial consumers needs, and how they search for information, and how they evaluate the alternatives during the pre purchase phase of the customer journey. The data collected comprised of the size of industrial organizations taken for the study. Most of the organizations undertaken for the study consist of food and pharma industry. The study mainly focussed on the variables that play a major role in making a pre purchase decision. The variables are shortlisted after a discussion with the organization representatives. It was found out that cost and after sales service are two main variables which influence the decision making. Further a significant relationship is found out between the age (duration of operation) of the organization and pre purchasing behaviour. The more the years of operation the less time they take in making a decision and similarly they depend on traditional factors like cost and after sales service. Newer organizations look out for warranty period, water recovery rate in making a pre purchase decision. Similarly no significant association was found out between the amount of water needed in the organization and purchase intention. This shows that consumers are more influenced by other variables. The purchase of water treatment equipment is a decision that must be carefully considered. Whether the purchase is being made to improve the aesthetic characteristics of the water or to address health considerations, many factors must be determined.

LIMITATIONS AND FUTURE RESEARCH

By exploring pre-purchase behaviour in the context of industrial consumer, this study provides another perspective for understanding consumer behaviour. Although this study intends to offer a new perspective, it is not without limitations. Given individual perceptions and cognitions can change over time, a limitation is that the propositions offered by this study did not incorporate the impact of time on the industrial consumer's internal policies and procedures. Future longitudinal studies, therefore, are needed to validate the theoretical framework.

The relationship of the pre purchase consumer behaviour can still be studied and explored to a greater level. The fact that there aren't much studies being done on the topic is a huge literature gap which needs to be filled. The future researchers can further explore the other variables influencing pre purchase behaviour.

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**A STUDY ON FACTORS THAT DRIVE SATISFACTION
AMONG ORGANIZATIONAL USERS OF WATER
TREATMENT PLANT**

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ABSTRACT

In business to business market scenario few researches have been conducted on consumer behaviour and satisfaction. Furthermore such researches have not been conducted for Water Treatment Plant in Pune City. The researcher out of interest and curiosity decided to research on satisfaction level among water treatment plant users in Pune City. The data of users of Water Treatment Plants is collected from District Industrial Centre and Maharashtra State Board of Pollution Control, since every Water treatment Plant has to get registered with the later. From this data it was understood that in Pune 144 organizations from different industries are using water treatment plants. To make findings generalizable almost 44% of these organizations were contacted for their responses. Responses are taken through structured questionnaire. The questionnaire includes 20 close ended questions. The organizations were selected based on researcher's convenience and availability of respondents from organizations. SPSS 13.0 Version is used for data analysis. ANOVA and Pearson's Correlation statistical techniques are used for testing hypotheses. The results showed that the professionals those engaged in purchase activities differ in their means of satisfaction levels for different aspects which drive satisfaction. Results also confirmed that Satisfaction and Manufacturers of Water Treatment Plant are significantly related. And finally it was found that satisfaction and loyalty towards the manufacturer (brand) of water treatment plant are significantly correlated. Last section of this research gives suggestions to marketers and directions for future research works as well.

Keywords: Water Treatment Plant, Pune City, Business to business

INTRODUCTION

Customer is the center of any business. Therefore all the businesses have to focus on customer requirements and try to fulfill most of them. If businesses could fulfill the requirements then customer become satisfied customer. Such satisfied customers are assets for business and these customers may even spread good word of mouth for that particular business house. Therefore satisfying customers is of utmost importance. Companies are usually engaging themselves in gauging satisfaction for their products and services and get feedbacks from customers so as to improve themselves to satisfy customers. If number of satisfied customer increases, number of complaints will fall down. So complaint handling cost will also reduce significantly. Reduced cost will increase profit subsequently. Therefore understanding the factors which lead to satisfaction and optimizing them is very important from businesses' point of view. However understanding those factors in nosiness to business (B2B) situations is complex compared to business to customer (B2C) situations. The number of research conducted for retail products in business to customer (B2C) settings is comparatively high than those

for business to business (B2B) environment. The methodology used for B2C cannot be adapted for B2B environment as in B2B customer behaviour is much different than B2C. In B2B situations the buyers are either influencing personalities from organizations or group of such people. People who influence the buying decision may not be from same professional background in all the organizations. For instant in some organizations these personnel who take decisions related to purchase may belong to different departments such as Purchase, Finance, Stores, engineering, maintenance etc. This research assumes that different personnel from different professional background give different degree of importance to different aspect related to product and sales services. Therefore marketers will have to understand the factors which are important to different professional personnel. The findings will help marketers to better deal with different professionals in the organizations and improve sales of the water treatment plant.

OBJECTIVE

This research attempts to identify the factors which are more important for companies with respect to usage of Water Treatment Plant (WTP). The objectives of this research are

1. To investigate if professionals from different background differ in their satisfaction level with respect to various factors affecting satisfaction for water treatment plant.
2. To investigate correlation between satisfaction and brand loyalty for Water Treatment plant
3. To study if there is any difference in satisfaction level among different brand (manufacturer) water treatment plant users.

LITERATURE REVIEW

Gupta (2006) defined consumer behaviour “as a study of a complex of those factors which resulted in particular buying decisions of consumers based on rationality, emotions or compulsion. According to him, a study of consumer behaviour is likely to reveal whether target consumers of the enterprise emphasize more on the price of the product or its quality. On this basis, suitable pricing strategies and programmes aimed at upgrading the quality of organizations products to suit the needs, habits and behaviour of consumer will be put in place.

Kotler and Armstrong (2001), Consumer buying behaviour refers to the buying behaviour of the individuals and households who buy goods and services for personal consumption. Consumers around the world are different in various factors such as age, income, education level and preferences which may affect the way they avail of goods and services. This behaviour then impacts how products and services are presented to the different consumer markets. There are many components which influence consumer behaviour namely; cultural, social, personal, and psychological.

Assael (1984) identified two major influences in the industrial consumer buying behaviour namely. 1. Industrial buyer influence such as consumer demographic lifestyles, attitudes, needs and personality. 2. Environmental influences or factors external: This relates to individuals like family, culture and reference group. By implication one can include the state of the nation economy. He concluded that a consumer could be influenced by three major factors. Sociological, psychological and environmental factors and they combine to determine the activities of individuals and groups in obtaining and consuming goods and services. The sequence of decision processes that follow this act is also an essential component of buying behaviour.

A study by Voss and Parasuraman (2003) suggests that the purchase preference is primarily determined by price than quality during pre-purchase evaluation. Given explicit quality information, price had no effect on pre-purchase or post-consumption quality perceptions. Instead, post consumption quality evaluations had a favourable impact on price evaluations.

Boulding et al (1993) stated another perspective of customer satisfaction, which deals with the difference between transaction specific and cumulative customer satisfaction. Customer satisfaction is viewed as a post-purchase evaluative judgment of a specific purchase occasion between expectation and actual performance according to transaction-specific perspective. Cumulative customer

satisfaction is an overall evaluation based on the total purchase and consumption experience with goods or service over time. In other words it is the customer's experience with the seller over the purchase. Cumulative satisfaction is a more fundamental indicator of the firm's past, current and future performance and its cumulative satisfaction that motivates a firm's investment in customer satisfaction.

Zineldin, (2006) developed a triangle strategy between quality, CRM, and customer loyalty which is leading to companies competitiveness. This research was designed to measure satisfaction and loyalty of the customers based on two main conditions where the customer database information and strategy of CRM should be structured well, and the system should be enough capacity for data producing to accurate analysis. According to the findings of the research, any changes of the quality of the services or productions or any other segments in a firm over time could be used as an indicator to find the level of customer loyalty through a well-structured CRM strategy. Also finding shows that, if the indicators of interaction, infrastructure, and atmosphere would be linked to the object and process quality it helps to the researchers to find what changes are required in CRM strategy to improve customer satisfaction and loyalty.

Hirsch (2011) investigated the concept of customer satisfaction in a high-technology B2B context. A survey was sent out to industrial customers of a manufacturer of high-technology products. 205 responses were gathered from all levels of the customer organizations. The study investigates the effect of the role as decision-maker on overall customer satisfaction. Product performance for customer's personnel, customer's customer and the quality of the technical service are introduced as dimensions to measure in a study on industrial customer satisfaction. Disconfirmation of expectation, a well-known framework for measuring customer satisfaction in consumer context is tested in a B2B context. Another common framework for measuring customer satisfaction, perceived performance, is also tested. Finally, the effect of customer satisfaction on loyalty is investigated. Findings confirmed that technical service is the most important dimension in the model, and product performance for personnel and for customer's customer both have a positive effect on overall customer satisfaction. Disconfirmation of expectations and perceived performance have different influence depending on which dimension of the product offer they are measuring. Customer satisfaction is found to be an important antecedent of loyalty even in a B2B context.

Coviello and Brodie (2001) investigated 279 firms and discovered that the overall marketing practices of the two types of industries were similar. However, they differed in the fact that those in consumer industries are more transactional, i.e. focusing on single transactions, while those serving industrial customers were more relational and long-term minded in their marketing approach. The satisfaction and dissatisfaction of the consumer is more than a response to the genuine performance nature of an item or benefit and that the earlier desires emphatically impact what we think quality is.

Homburg and Rudolph (2001) propose a model where satisfaction of industrial customers is measured by seven different dimensions such as satisfaction with product, salespeople, product-related information, order handling, technical services, internal personnel and complaint handling. The model was tested and supported in different industries consisting of suppliers of goods sold to industrial customers.

HYPOTHESES

1. Professionals from different background differ in their satisfaction level with respect to different factors affecting the satisfaction.
2. Customer Satisfaction for Water Treatment Plant is significantly correlated with Manufacturer (brand) loyalty for that Water Treatment plant.
3. Satisfaction level differs among different brands (manufacturers) of water treatment plant users.

METHODOLOGY

In Pune City (Urban Area) total 144 organisations are using water treatment plant as per Maharashtra State Board of Pollution Control. It was thought to collect responses from at least 50% of these organizations for this research. A questionnaire was designed in two steps. At first feedbacks from executives from different organisations are taken so as to understand major factors affecting satisfaction which are considered by them about water treatment plants. In second step rough draft of questionnaire is prepared based on feedbacks. This draft was again shown to other executives to check their views on the aspects covered in the draft. Based on their views some additions are done in the questionnaire and a final draft of questionnaire is prepared.

The questionnaire includes 3 sections. The first section is to collect demographic profile of the organizations and individual respondents. Second section includes questionnaire to record satisfaction level and includes various aspects as- product information, commercial aspects, confirmation of the expectations. The third section is about loyalty towards particular Water Treatment Plant manufacturer (brand).

Total 74 executives from different organizations were contacted based on researcher convenience for their appointments. However due to their busy schedules 11 executives could not give their time for giving interviews. Therefore total 63 responses are collected from those who gave their appointments. ANOVA, regression analysis techniques are used to analyse data.

RESULTS AND DISCUSSION

Reliability of the Instrument

To make use of the customised instrument for collecting responses, the instrument must be reliable. Therefore before applying statistical tests on the data, it is good idea to check reliability of the instrument and find that the items of the instrument measure exactly the same thing for which it is designed.

Table no. 1 Reliability Statistics

Cronbach's Alpha	N of Items
.821	20

Table no. 4 shows the result of reliability statistic. The Cronbach's alpha value greater than .7 usually is considered good and indicates that the instrument is reliable. Therefore we can say that the instrument used for collecting responses for investigating the drivers of satisfaction among organisational users is reliable.

Demographic Characteristics of the respondents

Table No.2 Professional Background of respondent

	Frequency	%
Valid Management, Purchase, Finance Dept.	32	50.8
Engineering, Manufacturing, Maintenance Dept.	31	49.2
Total	63	100.0

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From above table it is observed that almost equal number of respondents belong to both the professional areas. 32 respondents from the organisations belong to Management, or Purchase/ Finance Department.

Table No.3 Manufacturer (Brand) of WTP

		Frequency	%
Valid	ABC	14	22.2
	DEF	36	57.1
	GHI	13	20.6
	Total	63	100.0

The above table gives details of the Manufacturer (brand) of water treatment plants in the respondents' organisations. However the names of the manufacturers (brands) cannot be disclosed, therefore the original names are replaced by fictitious brands. It can be observed that 'DEF' has highest number of users among the respondents.

Descriptive Statistics

Table No.4 Descriptive Statistics

Aspects	Items of the scale	N	Mean	Std. Deviation
Reliability	Our water treatment Plant is reliable	63	3.22	0.79
	Manufacturer provided timely delivery.	63	3.19	0.82
Product Related Information	This manufacturer offers a large breadth of products to choose from	63	3.25	0.95
	It provides well documented technical specifications for its products.	63	3.11	1.11
Commercial Aspects	Current WTP offers a good return policy	63	3.33	1.09
	Manufacturer of WTP has good warranty coverage on its products	63	3.32	0.95
	This WTP is competitively priced	63	3.25	1.02
	The manufacturer of WTP offers a good credit policy	63	3.08	1.07
Fulfilment of Expectations	The amount of Water recovery from WTP is as per promised limits	63	3.35	0.85
	Problems/ issues w.r.t. to WTP is addressed by the after sales service team within promised timeframe	63	3.13	0.92
	The maintenance cost of the WTP is reasonable	63	3.13	0.96
	Quality of Output of Water from WTP is as expected	63	2.98	1.05
Mean	(overall Satisfaction)	63	3.20	

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Loyalty	We intend to buy other products of the brand if we require so.	63	3.52	1.09
	We will recommend this water treatment plant to other organization?	63	3.51	0.95
	We will not be looking for other brands in this category of products; this brand is good enough.	63	3.44	1.06
	If need arises we will buy water treatment plant from the same manufacturer of the plant (brand)	63	3.43	1.15
	We are satisfied with the overall quality of current Water Treatment Plant	63	3.38	0.94
	If this brand would increase their prices we would still consider the brand for our next purchase.	63	3.27	1.11

the responses for satisfaction for water treatment plant were collected on 5 point Likert’s scale. The overall mean for all aspects of satisfaction is 3.20. This suggests that the satisfaction level among organisational users is moderately high. Among four aspects of satisfaction ‘fulfilment of expectation’ has got highest mean for one of the items. The statement which received highest mean in ‘fulfilment of expectation’ is “The amount of Water recovery from WTP is as per promised limits” and the mean score is 3.35. However the lowest mean score 2.98 shows that organisational respondents are not satisfied with the quality of the water they get from water treatment plant.

HYPOTHESES TESTING

H1: Professionals from different background differ in their satisfaction level with respect to different factors affecting the satisfaction.

To test this hypothesis ANOVA test is run in SPSS. The result of ANOVA is shown in Table no .5. The significant value (p) is the indicative value in this table. If $p < .05$ then it indicates that the F test value is greater than the critical value. The p values for two aspects namely ‘Reliability Aspect’ ($p=.269$; $F=1.246$) and ‘Expectation Fulfillment’ ($p=.294$; $F= 1.121$) are not less than .05. Therefore respondents with different professional background do not differ in their means of satisfaction for these two aspects. However, the p values for ‘Product Related Information’ ($p=.000$; $F=93.134$) and ‘Commercial Aspects’ ($p=.000$; $F= 73.555$) are less than .05 suggesting that the professional differ in their means of satisfaction for these two satisfaction aspects. Therefore it can be said that the hypothesis ‘H1: Professionals from different background differ in their satisfaction level with respect to different factors affecting the satisfaction’ is partially supported.

Table No. 5. ANOVA- Professional Background & Satisfaction with respect to different aspects

		Sum of Squares	df	Mean Square	F	Sig.
Reliability Aspect	Between Groups	.473	1	.473	1.246	.269
	Within Groups	23.177	61	.380		
	Total	23.651	62			
Product Related	Between Groups	32.629	1	32.629	93.134	.000

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Information Aspect						
	Within Groups	21.371	61	.350		
	Total	54.000	62			
Commercial Aspect	Between Groups	34.483	1	34.483	73.555	.000
	Within Groups	28.597	61	.469		
	Total	63.079	62			
Expectation confirmation	Between Groups	.608	1	.608	1.121	.294
	Within Groups	33.106	61	.543		
	Total	33.714	62			

H2: Customer Satisfaction for Water Treatment Plant is significantly correlated with Manufacturer (brand) loyalty for that Water Treatment plant.

To test this hypothesis Pearson's correlation test is used. The result is shown in Table No. 6. The result confirms that 'overall satisfaction' and 'brand loyalty' are significantly correlated ($p < .05$). The value of Pearson's correlation (.442) suggests that the correlation is moderately strong and as satisfaction increases loyalty towards that particular brand increases as well.

Table No.6 Correlations between Overall satisfaction and loyalty

		Overall Satisfaction	Loyalty
Overall Satisfaction	Pearson Correlation	1	.442(**)
	Sig. (2-tailed)		.000
	N	63	63
Loyalty	Pearson Correlation	.442(**)	1
	Sig. (2-tailed)	.000	
	N	63	63

** Correlation is significant at the 0.01 level (2-tailed).

From this result we accept our hypothesis 'H2: Customer Satisfaction for Water Treatment Plant is significantly correlated with Manufacturer (brand) loyalty for that Water Treatment plant.'

H3: Satisfaction level differs among different brands (manufacturers) of water treatment plant users.

ANOVA is used to test hypothesis H3. The result of ANOVA (Satisfaction level and manufacturer (brand) of the WTP) is reproduced in Table no. 7

Table no. 7 ANOVA- Overall Satisfaction and Manufacturers (brands) of WTP

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.808	2	2.404	12.531	.000

Within Groups	11.510	60	.192		
Total	16.317	62			

The result shows that the p value is less than .05 ($p=.000$). Therefore it can be stated that organizational users of different brand of water treatment plants differ in their means of satisfaction level.

RESULTS AND DISCUSSION

The results show that users of water treatment plant are moderately satisfied with the plants. However some of the aspects stills calls for attention. Most of the respondents reported that they are little disappointed with the quality of the water output of water treatment plant. This calls for attention from manufacturers of the Water Treatment Plants. Attention should be paid towards the quality of output water and it has to conform to the specifications promised at the time of installation of the plant.

From hypotheses testing it was found that Professionals from different background differ in their means of satisfaction level with respect to different factors affecting the satisfaction. Among four aspects only two aspects; 'Product Related Information' and 'Commercial Aspects' are the aspects for which means of satisfaction of different professionals differ significantly. For rest of the aspects this relationship does not hold true. Arefi M., Aminin A. M. Fallahi K., (2010) in their work found that people from Management purchase or finance area may give higher importance to commercial aspects and those from engineering, manufacturing or maintenance background give higher importance to product information while evaluating the water treatment plant and its performance. Probably because of this respondents from different background differ in their means of satisfaction. Therefore marketers may need to design different approaches to make presentations about their products as per the client's professional background. If the client is from management/ purchase of finance area, the marketers can emphasis on the commercial aspects like credit period, discounts, returns on investment etc. while if the client is maintenance engineer, engineers or manufacturing professional then emphasis should be given on product related information as specifications of products, features of products, different varieties available etc. to increase chances that client buys the product.

Correlation statistics showed that Overall Satisfaction and loyalty for manufacturer of water treatment plant are significantly positively correlated. This suggests that a satisfied customer becomes loyal and do not change his/ her choice for product. Therefore marketers of water treatment plant should improve and maintain satisfaction levels so as to make customers loyal to their industrial products. This will help increase in business in long terms.

Means of satisfaction levels for users of different water treatment plant differs significantly. That means satisfaction level changes as per different manufacturer of water treatment plant. This suggests that some manufacturers are doing well than others in satisfying customers. Though this research gives coverage to different drivers of the satisfaction they are not enough as every construct contains only few items which may not give full coverage to the entire construct. The future studies may investigate exactly where the other manufacturers are lagging behind with respect to satisfaction level of the customers.

Future studies should conduct longitudinal research on satisfaction level investigation in B2B environment. Apart from four aspects which are thought to drive satisfaction of water treatment plant users in this research some other aspects may also drive satisfaction which future studies may tap. The findings of this research are restricted to only water treatment plant and in Pune City only therefore the findings may not be generalized for the industry.

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