AN APPRAISAL OF THE EFFECT OF FACTORS
ON BRAND LOYALTY OF SERVER

Ms. Siva Kumari

Research Scholar, G.G.S. IP University, Kashmeri Gate, Delhi.

Abs**tract**

The customer's intent for qualitative and quantitative aspects of product shifts the focus of attention of customers on the product's brand and brand loyalty. ***The factors like brand name/loyalty, product quality, price, Features, After sales service, store environment, service quality, product satisfaction, promotion, effect the customer's behavior to estimate the brand loyalty of the product.*** The objective of the study is to estimate the brand loyalty of server of multinational companies like International Business Machine, Hewlett Packard, and Sun Micro Systems. In analyzing the data of 200 respondents towards brand loyalty of server, collected through questionnaire. In our analysis, we found that the respondents of four groups (IBM, HP, SMS, and Others) attracts towards the brand influenced by product quality, price, service quality and, after sales service. The preference for various brand highlighted IBM with more brand loyalty (Ranking one) comparative to HP following SMS with ranking two and three.

Key words: Brand, Brand loyalty, Server, Information Technology etc.

Introduction

In the globalize competitive environment, the product differentiation induces and encourages the concept of brand and brand loyalty. Brand is a name, sign, symbol, design and, giving a branded name to a product and making aware of the quality of the product to the customer, help the company to survive in the severe competitive environment. Every company creates brand loyal customers by producing quality product and tries to retain the customers. More and more business is reorganizing the need to develop and, maintain the long term profitability through brand loyalty.

In the contemporary market, many brands of servers are available such as IBM (International Business Machine), HP (Hewlett Packard), SMS (Sun Micro Systems), Accer, Sony, Wipro and so on. Among those companies IBM, HP and Sun

1

Micro Systems are popular multinational companies and their market share is almost 70 percent of the world server market. As the information technology is growing enormously, which result the use of servers in every field to store the information. There are many types of servers available such as, File servers, Database servers, E-mail servers and networking servers. Many companies especially those in the servers producing, try to enhance brand loyalty among their customers. The server involves many parameters such as, product quality aspect of the server, price and number of service centers, market shares and companies brand value, for selecting a better among many alternatives. In this study, the focus is on estimating the brand loyalty and how the respondents are influenced by factors, such as Product quality, Brand name, After sales service, Price, Satisfaction and Store environment of brand loyalty towards the brand while purchasing a server.

Literature Review

In today's competitive environment, creating and maintaining loyal customers, however, has become increasingly difficult. Brand loyalty prefers not only to one's tendency to repurchase the same brand time after time, but also to have a psychological commitment or attitudinal bias toward the brand. In general, brand loyalty can be defined as the strength of preference for a brand compared to other similar available options.

Definition of Brand loyalty

Suggested in the year	Conceptual definition of Brand loyalty
Cunningham, 1956	Brand loyalty has been defined as in terms of the proportion of purchases of the most popular brand.
Jagdesh N. Sheth, 1968	Brand loyalty defined as the number of choices in sequence during a stated length of time.
Wngle Et al., 1968	Brand loyalty as a sequence of brand choices or expressed as probabilities of repeated purchases over time.
Jacoby and Chestnut (1978)	Brand loyalty as 1) Preferential response ; 2) Behavioral response

	3) Exhibited in the course of time by a subject 4) Chooses one or more alternative brands among a given set. 5) Depends upon psychological processes since the brands are chosen through an internal criterion which derives from the confidence in such brands
Bloemer and Kasper (1995)	Brand loyalty as have six necessary conditions which are: 1)The biased; 2)behavioral response; 3)expressed overtime; 4)decision making unit; 5) respect to one or more alternative brands out of a set of such brands; and 6) a function of psychological processes.
Wernerfelt (1991)	Brand loyalty is recognized as an asset and consumers are willing to pay more for a brand.
Bozzo et al., 2003	It insists that consumers have the choice between several alternatives. It also emphasis the fact that, beyond the behavioral aspects, the psychological dimension of brand loyalty crucial.

Factors influence the Brand Loyalty

This study focuses on to appraise the influence of factors on brand loyalty: Brand name (Aaker, 1996; Jacoby & Chestnut, 1978); Product quality (Frings, 2005; McCornick & Scorpio, 2000); price (Cadogan & Foster, 2000; Ryan et. al., 1999); Store environment (Evans et. al., 1996), Promotion (Maloney, 1999); Evans at. al., 1996; May, 1971); service quality (Mittal & Lassar, 1996) on server selecting.
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Brand Name

Brand name is important for the firm to attract the customers to purchase the product and influences repeated purchasing behavior. In the contemporary market, the familiar and unfamiliar brand names and some alternative brands available. The

familiar brand names and their images attract the customers to buy repeatedly.

Product Quality

The quality of the products has major influence on the market success and profitability of firms. In other words, in the market place, product quality has a vital role on firm's competitive behavior through affecting customer's satisfaction. If the product fulfills the customers' needs and expectation, it may be deduced that the product is acceptable by the customer. Consumers may repeat the purchase of single brand of server due to qualitative and quantitative characteristics of the product.

Store Environment

The store atmosphere is one of the factors that could influence consumer's decision making. The Store environment, store shoppers characteristics, store location/store layout, store temperature, store noises, smells, shelf space display also effect the consumer decision making (Abraham and Littrell, 1995). Omar (1999) emphasized that the store environment was the single most important factor in retail marketing success.

Price

Price is the most important consideration for the average customers. It will be strongest brand loyalty drive in factors. Consumers'

satisfaction is also built on comparing the prices. Price variations of consumers' favorite brand may only affect their purchase but not their brand choice. Loyal customers will be even willing to pay a premium price for their favorite brand. When choosing to buy two competing products of the same cost, the customers will choose the product they feel will give them better value.

After sales service

Service quality is a direct interaction between salesperson and buyer. This is one kind of personal selling. The common definition of the service quality is that service should be corresponding to the customer's expectations and satisfies their needs and requirements (Gronroos. 1990 and WoogFoong, 2008). The quality of a service as perceived by customers has three dimensions: functional (or process) dimension, technical (or outcome) dimension, and image (Gronroos (1990)).

Features

When we are selecting a server, customer considers the specifications of the system. The customer feels that server will full fill his/her requirements. The qualitative

features of the servers are important for selecting the server.

Promotion and advertisements

The promotion is also one type of communication with the customers. This includes the use of advertising, sales promotion, personal selling and publicity (woongfoong yee and Yahyahsidek). The serer companies such as IBM, HP and sun micro systems used to give the advertisements through televisions, news papers.

Product Satisfaction

Product satisfaction will give more loyalty in the customer minds. **Hypotheses** The hypothesis of the paper is

➢ To estimate the brand loyalty of the product (Server) of multinational companies' such as IBM, HP and SMS.

➢ To analyze the influence of brand loyalty factors during the time of selection of product.

➢ Ranking of the IBM, HP and SMS companies' product based on brand loyalty.

Research design

This research is qualitative research, where the sources of information are collected from the questionnaires. The instrument utilized was through the self-administered questionnaire containing closed-ended scale to the open questions. This is a descriptive study which helps to evaluate the consumer's behavior regarding selecting the server of different companies' influenced by the factors. The hypothesis testing is to determine the influence on product-qualitative and non qualitative towards the brand loyalty. The type of sampling is from who are using the servers (companies, universities, designing centers, colleges, banks etc.) in India. The sample of this study totaled 200 respondents to indicate their ratings to estimate their brand loyalty.

Methodology

The study conducts a survey of 200 respondents to indicate if they had ever purchased the server, the brand favorable or unfavorable experience with a product or service produced by that company. The data were collected by using the primary source. The structure of the questionnaire is clear, easy and understandable. The questionnaire divided into nine sections based on factors which influence the brand loyalty, are Product quality, Price, Store environment, Features, Brand name/loyalty, Aftersales service, Promotion, Product satisfaction, Service quality. The respondents who are using the server given

the feedback of server producing companies. They indicate their views, on a 5-point Likert scale (The Likert scale was used for the questionnaire: 1 indicates strongly disagree, 2 indicates disagree, 3 indicates neutral, 4 indicates agree, and 5 indicates strongly agree, how likely they were to choose that brand.

Data analysis

Descriptive analysis is used to analyze the domain knowledge as well as the usage of the servers by the respondents' for selection of the server and evaluation of the brand loyalty. Various statistical tools (SPSS -Statistical Package for the Social Sciences) such as mean, standard deviation, one way ANOVA, t-test, frequency and percentage have been used to analyze the data collected with the help of questionnaires. Mean and standard deviation have been collected various factors which influenced the respondents' selection behavior of servers and their brand loyalty.

Reliability

Reliability of the scale was calculated by using Cronbach's Alpha (Coefficient alpha) technique. The value of Cronbach's Alpha comes to .76 which indicates the scale is reliable as the minimum level of reliability is 0.70.

Table 1Ranking of the factors on the basis of Mean and S.D of every factor (N=200)

Factors	Mean	Rank	Std. Dev.
Product quality	4.21	1	0.41
Price	4.21	2	0.73
Store environment	4.19	3	0.44
Features	4.18	4	0.74
Brand name	4.14	5	0.59
Promotion	4.08	6	0.71
Product satisfaction	4.04	7	0.57
After sales service	4.04	8	0.69
Service quality	3.97	9	0.74

In the above analysis, it has observed that the mean value of the product quality (4.21) following price (4.21) at the top rank and the service quality (3.97) will be considered at last with product satisfaction (4.04) and after sales services (4.04).

Influence of factors on brand loyalty

Table 2 Comparison, (Respondents loyal to brand and non loyal to brand- test used)

Factors	Loyal to brand		Not loyal brand		t-value
	Mean	Std. Dev.	Mean	Std. Dev.	
Product quality	4.20	0.40	4.21	0.43	0.29
Price	4.22	0.78	4.20	0.67	0.21
Store environment	4.22	0.42	4.16	0.47	1.00
Brand name/ Loyalty	4.11	0.60	4.18	0.58	0.74
Service quality	3.95	0.79	4.00	0.66	0.40
After sales service	4.05	0.63	4.02	0.74	0.29
Product satisfaction	4.09	0.57	3.97	0.58	1.51
Promotion	4.12	0.68	4.02	0.74	0.96
Features	4.21	0.68	4.15	0.81	0.55

*Significant 0.05 level

In the above analysis, it has been observed, that between the two groups, the mean values of product quality are **4.20 and 4.21**, the price are **4.22 and 4.20**, the store environment are **4.22 and 4.16**, the brand name/ loyalty are **4.11 and 4.18**, the service quality are **3.95 and 4.00**, the after sales service are **4.05 and 4.02**, the product satisfaction are **4.09 and 3.97**, the promotion are **4.12 and 4.02**, the features are **4.21 and 4.15**respectively. This shows that the respondents of the both the groups agree to buy the products on the basis of these features which influence the brand loyalty. The table further indicates that the t-value is not significant (significant at 0.05 level), it means the respondents of the both the groups don't differ significantly on the basis of these features, but the degree of variation on the basis of effectiveness of factors on brand loyalty is different.

Table 3 Comparison between two groups (Selection considered on price and not consideration on price)

Factors	Group1 (N=115)		Group2 (N=83)		t-value
	Mean	Std. Dev.	Mean	Std. Dev.	
Product quality	4.18	0.42	4.23	0.40	0.71
Price	4.21	0.71	4.21	0.76	0.12
Store environment	4.21	0.44	4.17	0.46	0.56
Brand name/ loyalty	4.13	0.61	4.17	0.57	0.51
Service quality	3.96	0.75	4.00	0.73	0.37
Aftersales service	3.95	0.74	4.16	0.58	2.09 *
Product Satisfaction	3.97	0.60	4.13	0.53	1.95
Promotion	4.04	0.76	4.13	0.64	0.87
Features	4.13	0.82	4.25	0.63	1.15

* Significant at .05 level

In the above analysis, it has been observed that between the two groups the mean values of product quality are **4.18 and 4.23**, the price are **4.21 and 4.2**1, the environment are **4.21 and 4.17**, the brand name/ loyalty are **4.13 and 4.17**, the service quality are **3.96 and 4.00**, the after sales service are **3.95 and 4.16**, the product satisfaction are **3.97 and 4.13**, the promotion are **4.04 and 4.13**, the features are **4.13 and 4.25** respectively.

This shows that the respondents of the both the groups agree to buy the products on the basis of these features which influence the brand loyalty. The table further indicates that the t-value is not significant, it means that the respondents of the both the groups don't differ significantly on the basis of these factors. But the effectiveness of factors on brand loyalty is different on the basis of variation among factor's effect.

Table 4 Comparison between two groups (Selection considered on cost and cost not considered – t-test used)

Factors	Group1 N=131		Group2 N=67		t-value
	Mean	Std. Dev.	Mean	Std. Dev.	
Product quality	4.21	0.40	4.17	0.45	0.71
Price	4.22	0.78	4.17	0.62	0.45
Store environment	4.17	0.44	4.23	0.45	1.03
Brand name/loyalty	4.16	0.58	4.10	0 .62	0.80
Service quality	3.97	0.74	4.00	0.73	0.16
Aftersales service	4.05	0.66	4.02	0.74	0.23
Product satisfaction	4.09	0.56	3.94	0.59	1.8
Promotion	4.04	0.73	4.15	0.66	0.97
Features	4.24	0.73	4.07	0.78	1.45

* Significant at .05 level

In the above analysis, it has been observed that between the two groups, when cost is not considerable the mean values of product quality are **4.21 and 4.17**, the price are 4.22 and 4.17, the store environment are **4.17 and 4.23**, the brand name/ loyalty are **4.16 and 4.10**, the service quality are **3.97 and 4.00**, the after sales service are **4.05 and 4.02**, the product satisfaction are **4.09 and 3.94**, the promotion are **4.04 and 4.15**, the features

are **4.24 and 4.07** respectively. This shows that the respondents of the both the groups agree to buy the products on the basis of these factors which influence the brand loyalty. The table further indicates that the t-value is not significant it means that the respondents of the both the groups don't differ significantly on the basis of these factors only variation found on degree of deviation which shows the influence of factors on brand loyalty.

Table 5 Comparison among respondent of four groups (IBM, HP, SMS, Others) –

ANNOVA test, to find F-value

Factors	IBM (N= 81)		HP (N=72)		SMS (N=29)		Others (N=16)		F-Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Product quality	4.19	0.40	4.18	0.44	4.26	0.41	4.30	0.33	0.57
Price	4.29	0.69	4.13	0.77	4.10	0.77	4.43	0.62	1.33
Store environment	4.18	0.42	4.18	0.51	4.22	0.38	4.27	0.34	0.28
Brand name/ loyalty	4.16	0.53	4.15	0.67	4.12	0.56	4.03	0.59	0.25
Service quality	3.96	0.81	4.07	0.60	3.83	0.77	3.83	0.76	1.03
After sales service	4.09	0.60	4.08	0.68	3.88	0.92	3.88	0.59	1.07
Product satisfaction	4.03	0.59	4.06	0.59	4.00	0.50	4.03	0.63	0.078
Promotion	4.04	0.72	4.11	0.65	4.13	0.86	3.96	0.67	0.30
Features	4.24	0.71	4.24	0.71	4.01	0.99	4.21	0.63	0.66

*Significant at 0.05 level *SD=standard deviation

Among 200 respondents, it has been observed that 81 respondents has chooses the IBM brand, 72 respondents HP brand of server, 29 respondents SMS brand and 16 respondents other brand of the server domain.

In the above analysis, it has been observed among the four groups the mean values of **product quality** are **4.19, 4.18, 4.26, and 4.30** respectively. This shows that the respondents among the groups agree to buy the products on the basis of product quality. The table further indicates that the F-value is not significant. This may mean that the respondents of among the groups don't differ significantly on product quality. **Price** is **4.29, 4.13, 4.10, and 4.43** respectively.

This shows that the respondents of among four groups agree to buy the products on the basis of price and the F-value is not significant, thus the respondents don't differ significantly on price. **Store environment are 4.18, 4.18, 4.22 and 4.27** respectively.

This shows that the respondents among four groups agree to buy the products on the basis of store environment and the F-value is not significant, thus the respondents don't differ significantly on store environment. **Brand name/loyalty is 4.16, 4.15, 4.12 and 4.03** respectively.

This shows that the respondents among four groups agree to buy the products on the basis of store environment and the F-value is not significant, thus the respondents don't different significantly on brand loyalty.

Service quality is 3.96, 4.07, 3.83 and 3.83 respectively. This shows that the respondents among four groups agree to buy the products on the basis of service quality and the F-value is not significant, thus the respondents don't differ significantly on service quality.

After sales service are **4.09, 4.08, 3.88 and 3.88** respectively. This shows that the respondents among four groups agree to buy the products on the basis of after sales service and the F-value is not significant, thus the respondents don't differ significantly on after sales service.

Product satisfaction is **4.03, 4.06, 4.00 and 4.03** respectively. This shows that the respondents among four groups agree to buy the products on the basis of product satisfaction and the F-value is not significant, thus the respondents don't differ significantly on product satisfaction.

Promotion is **4.04, 4.11, 4.13 and 3.96** respectively. This shows that the respondents among the four groups agree to buy the products on the basis of promotion, and the F-value is not significant, thus the respondents don't differ significantly on promotion.

Features are **4.24, 4.24, 4.01 and 4.21** respectively. This shows that the respondents among four groups agree to buy the products on the basis of features and the F-value is not significant, thus the respondents don't differ significantly on features.

Table 6 Comparison among four groups (IBM, HP, SMS, Others) – DUNCAN's test

Factors	Group1 (IBM)	Group2 (HP)	Group3 (SMS)	Group4 (Others)	Significanc	F-

	(N=102)		(N=58)		(N=27)		(N=11)		e pairs (*)	Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Product quality	4.20	0.41	4.21	0.38	4.21	0.43	4.18	0.55	-----	0.22
Price	4.20	0.75	4.15	0.77	4.30	0.67	4.46	0.52	-----	0.654
Store environment	4.20	0.44	4.19	0.51	4.10	0.34	4.43	0.27	-----	1.416
Brand name/loyalty	4.02	0.61	4.27	0.54	4.20	0.56	4.40	0.58	GRP1/GRP2	3.05 *
Service quality	3.89	0.73	3.92	0.83	4.32	0.44	4.12	0.50	Grp1/Grp3 Grp2/Grp3	2.72 *
Aftersales service	4.00	0.75	4.03	0.68	4.13	0.51	4.14	0.55	-----	0.31
Product satisfaction	4.00	0.60	4.03	0.57	4.20	0.45	4.04	0.60	-----	0.95
Promotion	4.00	0.78	4.16	0.65	4.24	0.63	4.09	0.49	-----	1.28
Features	4.13	0.80	4.20	0.75	4.28	0.59	4.36	0.55	-----	0.56

*significant at 0.05 level * SD= Standard Deviation

Among 200 respondents, it has been observed that 102 respondents preferred the IBM brand of servers, 58 for HP, 27 for SMS and 11 for others. In the case of brand loyalty factors, the F value (3.05) indicates that there is a significant difference among four groups of servers. The mean values of group1 (IBM) (4.02) and group2 (HP) (4.27) differ significantly. In the case of group4 (others) the mean value brand name/ loyalty

is 4.40 as compared to the mean value 4.02 in the case of group1. This indicates that the respondents of group4 are more loyal to brand as compared to group1. In the case of service quality factors, the F-value (2.72, significant at 0.05 level) indicates that there is a significant difference among four groups of servers. The mean values of group1 IBM (3.89) and group3 SMS (4.32) differ significantly as well as the group2 (HP) (3.92) and group3 (4.32) also differ significantly. In the case of group4 the mean value is 4.12 as compared to the mean value 3.92 in the case of group1. This indicates that the respondents of group 4 are more service quality to brand as compared to group 1.

Table 7 Comparison of factors among four groups (IBM, HP, SMS, Others) - DUNCAN's mean test

Factors	Group1 (IBM) (N=87)		Group2 (HP) (N=78)		Group3 (SMS) (N=22)		Group4 (Others) (N=11)		Signifi-cance pairs (*)	F-Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Product quality	4.19	0.39	4.20	0.42	4.22	0.48	4.30	0.45	-----	0.21
Price	4.24	0.65	4.08	0.83	4.36	0.73	4.55	0.52	-----	1.89
Store environment	4.17	0.49	4.20	0.41	4.13	0.41	4.42	0.34	-----	1.19
Brand/Brand loyalty	4.02	0.60	4.24	0.60	4.21	0.46	4.37	0.64	Grp1/ Grp2	2.63 *
Service quality	3.96	0.77	3.94	0.80	3.99	0.44	4.33	0.30		0.95
Aftersales service	3.96	0.78	4.06	0.63	4.13	0.56	4.27	0.41	-----	1.0

13

Product satisfaction	4.09	0.58	3.92	0.56	4.09	0.59	4.31	0.48	Grp2/ Grp4	2.26 *
Promotion	4.16	0.64	4.05	0.79	3.84	0.78	4.22	0.47	-----	1.38
Features	4.06	0.70	4.24	0.83	4.27	0.69	4.46	0.41	-----	1.46

*Significant at 0.05 level *Standard Deviation

In this analysis, it has been observed that in the DUNCAN's mean test analysis 87 prefer IBM brand of servers, 78 for HP, 78 for SMS and 11 for others. However, in the case of brand loyalty factors, the F value (2.63) indicates that there is a significant difference among four groups of servers. The mean values of group1 IBM (4.02) and group2 HP (4.24) differ significantly. In the case of product satisfaction factors, the F value (2.26) indicates that there is significant difference among the four groups of servers. The mean group2 HP the mean value is 3.92 as compared to the mean value 4.31 in the case of group4. This indicates that the respondents of group4 are more influenced by product satisfaction as compared to group2.

Table 8 Comparison among four groups (Considering turn over time After Services)- DUNCAN's Mean test

(Group1 and Group2= 5 hours, Group3=3 to 5 hours, Group4=1 to 3 hours, Group5=less than one hour)

Factors	T2 (N=29)		T3 (N=36)		T4 (N=58)		T5 (N=75)		Significance pairs (*)	F-Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Product quality	4.11	0.43	4.18	0.39	4.19	0.38	4.26	0.44	-----	0.92
Price	4.13	0.79	4.47	0.66	4.14	0.69	4.17	0.76	T4/T3 T5/T3	1.92 **
Store	4.13	0.4	4.11	040	4.25	0.39	4.21	0.50	-----	0.94

environment		4								
Brand name/ loyalty	4.07	0.48	3.99	0.50	4.23	0.49	4.18	0.72		1.56
Service quality	2.71	0.56	3.76	0.44	4.12	0.47	4.45	0.42	T2/T3 T2/T4 T2/T5 T3/T4 T3/T5 T4/T5	105.16 **
Aftersales service	3.62	0.80	4.19	0.54	4.06	0.75	4.11	0.59	T2/T4 T2/T5 T2/T3	4.74 **
Product satisfaction	3.49	0.42	4.16	0.44	4.16	0.56	4.09	0.58	T2/T5 T2/T3 T2/T4	12.28 **
Promotion	3.67	0.71	4.20	0.59	4.24	0.67	4.05	0.74	T2/T5 T2/T3 T2/T4	4.86 **
Features	4.12	0.73	4.22	0.63	4.10	0.80	4.25	0.76	-----	0.51

*Significance level at 0.05 level * Standard Deviation

Among 200 respondents, it has been observed that when comparing the returning time of the server after servicing, the respondents are having the different opinions about the different time periods. However in the case of service quality factor F value (105.16), it indicates that there is a significant difference among four groups preferring server. The mean value of time T2 (2.71) and T3 (3.76) differ significantly and in the case of T2 (2.71) and T4 (4.12), but T2 (2.71) and T5 (4.45), T3 (3.76) and T4 (4.12), T3 (3.76) and T5 (4.45) and T4 (4.12) and T5 (4.45) differ significantly and shows the preference about service quality of four groups.

In the case of after sales service factor F-value (4.74) indicates that there is a significant difference among four groups providing the services. It has been observed that the mean value of T2 differ from T4, T2 to T5 and T2 to T3 significantly.

In the case of product satisfaction factor, the F-value (12.28) indicates that there is a significant difference among four groups of servers. The mean values of T2 differ with T5, T3 and T4 significantly.

In the case of price and promotion factor, the F-value (1.92 and 4.86) respectively indicates that the difference among four groups. In the case of price factor T4 differs from T3 and T5 from T3. Similarly, in the case of promotion T2 differs with T5, T3, and T4 significantly.

In the analysis, it has been observed that the maximum group differs with one another regarding tenure after servicing, while considering the service quality, in spite of price factor where few groups differ with one another.

Table 9 Comparison of factors among four groups (Group1=Yes, informed, Group2=No, and I was informed, Group3= No, but I was informed in advance, Group4=Yes, but it was not conform) - DUNCAN's mean test

Factors	Group1 (IBM) (N=42)		Group2 (HP) (N=25)		Group3 (SMS) (N=34)		Group4 (Others) (N=97)		Significance pairs (*)	F-Value
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Product quality	4.22	0.36	4.19	0.38	4.07	0.42	4.25	0.43	-----	1.52
Price	4.21	0.68	4.32	0.63	4.03	0.94	4.25	0.69	-----	0.97
Store environment	4.26	0.41	4.27	0.39	4.16	0.52	4.16	0.44	-----	0.84
Brand name/ loyalty	4.20	0.56	3.94	0.62	4.02	0.75	4.21	0.51	-----	2.20
Service	3.90	0.64	3.91	0.80	3.74	0.80	4.10	0.71	Grp3/Grp4	2.52 *

quality									*
Aftersales service	4.10	0.81	4.04	0.61	3.75	0.66	4.11	0.64	Grp3/Grp1 Grp3/Grp4	2.55 **
Product satisfaction	4.18	0.57	3.82	0.57	3.87	0.68	4.09	0.51	Grp2/Grp4 Grp2/Grp1 Grp3/Grp4 Grp3/Grp1	3.44 **
Promotion	4.07	0.77	3.98	0.85	4.07	0.62	4.11	0.69	-----	0.24
Features	4.18	0.77	4.08	0.59	4.16	0.74	4.22	0.78	-----	0.23

*=Significant at 0.05 level

Among 200 respondents, it has been observed that 42 respondents preferred the IBM brand of servers, 25 for HP, 34 for SMS and 97 for others, while considering the probable time of servicing. In the case of Service quality factors, the F- value (2.52) indicates that there is a significant difference among four groups. The mean values of group3 (3.74) and group4 (4.10) differ significantly.

But, in the case of After sales service factors, the F-value (2.55) indicates that there is a significant difference among four groups and the mean values of group3 differ with group1 and group4 significantly.

In the case of product satisfaction for responding to the complaints, the F-value (3.44) indicates that there is a significant difference among four groups with mean values of Group2 differ with group 4 and group1, group3 differ with group 4 and group1 significantly.

In the above analysis it has been observed that the maximum groups differ with one another in the opinion about probable time of servicing response.

Conclusion

With the increasing concern for quality of the product in the globalize competitive environment the product differentiation induces the concept of brand and brand loyalty. In the contemporary market where many brands of servers are available. In our study, the focus is on popular brands available IBM, HP, and SMS. In this paper, it is highlighted that the factors (brand name, product quality, price, store environment, Service quality, After sales service, Product satisfaction , Features, Promotion) influence the brand loyalty and affect the purchase behavior of consumers

for brands and their concern for brand loyalty. As the brand name is important to firm to attract the customers so in our research paper we estimated the brand loyalty of the product (server) regarding the product preference of the companies' such as IBM, HP, SMS, and others. The two groups of consumers who are loyal to brand and not loyal to brand influenced by the different factors. In the above analysis, it has been found that the respondents of the both the groups do not differ significantly (t-test used), but the degree of variation on the basis of effectiveness of factors on brand loyalty is different while, price and cost are taking under consideration or not.

It has been highlighted that the respondents of four groups (IBM,HP,SMS, and others) shows the concern about the different factor influence on preferring the brand name and showing the brand loyalty (ANNOVA test used). It is further surfaced that the respondents of four groups differ with one another regarding service quality, product satisfaction and brand loyalty (DUNCAN's Mean test used).

While considering the time period for servicing and probable time servicing, the respondents of four groups shows more differences in opinion regarding service quality and product satisfaction respectively.

But, few groups differ for price regarding time period for servicing and for probable time period of servicing the groups do not have different opinion about the service quality.

The preference for various brands among different groups of respondents shows that, IBM is having more brand loyalty (giving the rank no.1) comparative to HP (Rank no. 2), bringing SMS in ranking no.3. The factor product quality following the price effect the brand name and brand loyalty of the product influencing the respondents of four groups to purchase the specific brand.

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