

AN EMPIRICAL STUDY OF QUALITY OF PAINTS: A CASE STUDY OF IMPACT OF ASIAN PAINTS ON CUSTOMER SATISFACTION IN THE CITY OF JODHPUR

Dr. Ashish Mathur

Associate Professor, Department of Management Studies
Lachoo Memorial College of Science and Technology, Jodhpur

ABSTRACT

Paints are the basis to fill colors in the human life. The quality of paints impacts the life to give the beauty and imagination to live a life of better standards. The paints in the market are used in the houses to give the imagination, beauty and creativity to design the life for living with peace and progress. The paints have many uses and they basically form the fabric of creative and innovative life with the colors of many moods and emotions. The basic aim of the paper is to build the strategic framework for developing the quality paints to give the strength to the infrastructure of the surroundings in a beautiful way.

Key words –quality, customer, satisfaction, promotion, price creativity.

INTRODUCTION

The colors are the soul of any society as it develops the human life with dignity and respect. The colorful ethics of the life are reflected by the quality of paints used in human life.

CHARACTERISTICS OF GOOD QUALITY PAINTS

The quality of paints is the basis for the customer satisfaction to create good houses with creativity and imagination to build the delicate fabric of life.

- Paints industry must have the well trained and motivated people
- well-designed packaging
- Safe and secured hygienic environment of happiness
- Effective financing facilities
- Colour variety and ethics

The factors impacting the higher quality of paints include:

- Creation of demand for improvement and growth
- imbibing local traditional cultural colours

- diagnosis of customer needs and support
- formulation of methodology for mobilization of resources
- customer satisfaction of technology for modern painting

Figure- the relation of brand quality and customer satisfaction



The paint quality should enhance the beauty and develop the ambience and environment of sophistication to give the creative and innovation to the surroundings. The quality content should include several pivotal areas such as:

- shine and lustre
- packaging
- promotion
- price
- variety

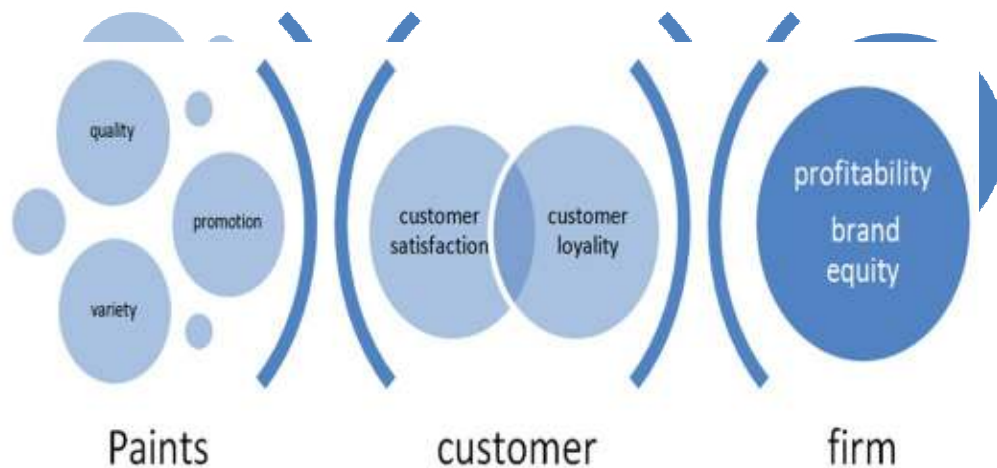
Figure – the variables of paint quality and customer loyalty



Customer satisfaction is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services exceeds specified satisfaction goals."

Customer satisfaction is the basis to build the customer loyalty and impact the repurchase decision of the customer. The customer satisfaction is influenced by the quality, sales support and the promotion. The brand loyalty is essential which can be created by proper designing of the advertisements to build the emotional bonding of trust and faith. "Customer satisfaction provides a leading indicator of consumer purchase intentions and loyalty. It chances with the positive experience with the firm. The objective of customers to impact the sales and profitability of the company to enhance the image and the reputation.

Figure – the impact of quality and profits of the company



LITERATURE REVIEW

The service management literature argues that customer satisfaction is the result of a customer's perception of the value received . . . where value equals perceived service quality relative to price. . . (Hallowell, 1996).

The first determinant of overall customer satisfaction is perceived quality . . . the second determinant of overall customer satisfaction is perceived value. . . (Fornell 1996).

Customer satisfaction is recognized as being highly associated with 'value' and is based, conceptually, on the amalgamation of service quality attributes with such attributes as price. . . (Athanasopoulos, 2000).

DIMENSIONS OF PAINT QUALITY

The impact of customer satisfaction can be measured by the dimensions of the quality of the products and promotion. The impact is also reflected by the ability to build the efficiency to create the variety and designs. The packaging also influences the customer perceptions. The ability of the paints to build the shine and luster is important to give the identity and creativity to the personality of the company.

OBJECTIVE OF THE STUDY

The basic objective of the study

- The factors impacting the quality of paints
- To determine the impact of quality dimensions on customer satisfaction
- To frame the suggested strategy for providing the better education to the customers

HYPOTHESIS

Null Hypothesis -H₀₁: There is no significant difference about paint quality and customer satisfaction amongst customers classified by age using Asian Paints in the city of Jodhpur.

Alternative Hypothesis -H_{a1}: There is a significant difference about paint quality and customer satisfaction amongst customers classified by age using the Asian Paints in the city of Jodhpur.

Null Hypothesis- H₀₂: There is no significant difference about paint quality and customer satisfaction amongst customers classified by gender using the Asian Paints in the city of Jodhpur

Alternative Hypothesis -H_{a2}: There is a significant difference about paint quality and customer satisfaction amongst customers classified by gender using the Asian Paints in the city of Jodhpur

Null Hypothesis - H₀₃: There is no significant difference about paint quality and customer satisfaction amongst customers classified by parent's income level using the Asian Paints in the city of Jodhpur

Alternative Hypothesis- H_{a3}: There is a significant difference about paint quality and customer satisfaction amongst customers classified by parent's income level using the Asian Paints in the city of Jodhpur

RESEARCH METHODOLOGY

The researcher contacted the respondents personally with well-prepared sequentially arranged questionnaire. The questionnaire prepared, was divided into two parts, of

which part one was used to gather demographic details of the respondents using the Asian Paints in the city of Jodhpur.

Sampling Area - The study was conducted on the respondents i.e. the customers studying in the schools of Jodhpur city.

Population- All the customers using the Asian Paints in the city of Jodhpur

Sample size - The research focused on the participants who were willing to participate. Total 186 respondents filled the questionnaire.

Sampling Design - The sample was designed by the convenience based random sampling method.

Primary Data - Most of the data collected by the researcher was primary data through a structured questionnaire, which was operated on the samples of the customers of using the Asian paints in the city of Jodhpur.

Secondary data- The secondary information was collected from the published Sources such as Journals, Newspapers and Magazines and websites.

Research instruments - A summated rating scale format was used, with six choices per item ranging from "highly dissatisfied" to "highly satisfy ". In this all the questions were positively framed to study the impact of independent variable like age, gender and education on the dependent variable which is student customer satisfaction. The six dimensions of paint quality where the average of the questions was taken into the consideration.

Analysis of Data - All the data collected from the respondents was feeded and tabulated and the analysis was done through the software of SPSS version 16...

DATA ANALYSIS

ANNOVA analysis guidelines for one way ANOVAs:

1. Linearity and Non-Linearity Test by One Way ANOVAs:-

First of all it is necessary to use this test here and this test is given preference over vicariate correlation test because, we fear that our dimensions and demographic factor may bear a nonlinear relationship with Total consumer preferences and as we know to use the correlation coefficient correctly, a relationship between two variables must be approximately linear, when this assumption of linearity is violated, Pearson's product-moment coefficient of correlation or Spearman's correlation coefficient will underestimate the strength of the relationship, that will ultimately result in completely wrong analysis. Therefore in our analysis we prefer to use One Way ANOVAs so as test both Linear as well as Non Linear Relationship. The dependent variable must be scale for accurate analysis. The independent variable cannot be Nominal. Therefore, the test cannot not be applied on Gender and education which are the part of Demographic variable

- Now, if in the test for homogeneity of variance, if the significance value is more than 0.05 than simply One way anova table will be checked, if there the significant value is less than 0.05 then Tukey HSD Post-hoc comparison for

individual group difference will be checked if it show significant value less than 0.05 than the individual group differs.

- It is mandatory to look for test for homogeneity of variance only when the group is of nearly equal size. Welch test is more accurate than Brown-Forsythe test hence it would be given priority during analysis. For all those independent variables where homogeneity constraints was satisfied Tukey table for Post hoc comparison is shown and where robust estimates of Welch and Brown-Forsythe are looked, there Tamhane table for Post hoc comparison is shown (Monday, Klein, Lee, 2005).

Tests of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total	.060	186	.200*	.995	186	.744

Analysis- the value of sigma in Shapiro-Wilk is more than .05 so the data is normal

ONEWAY Total BY Gender

/CONTRAST=.5 -.5

Descriptive

Total								
					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
Female	90	36.2111	4.56537	.48123	35.2549	37.1673	25.00	46.00
Male	96	40.1250	4.20338	.42901	39.2733	40.9767	30.00	51.00
Total	186	38.2312	4.79023	.35124	37.5382	38.9241	25.00	51.00

Test of Homogeneity of Variances

Total

Levene Statistic	df1	df2	Sig.
.781	1	184	.378

Analysis – the value Levene Statistic is more .05 so the groups are homogenous

ANOVA

Total					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	711.570	1	711.570	37.054	.000
Within Groups	3533.489	184	19.204		
Total	4245.059	185			

Analysis – the value of sigma is less than .05 which shows that the groups are differing

Robust Tests of Equality of Means

Total				
	Statistic ^a	df1	df2	Sig.
Welch	36.856	1	180.105	.000
Brown-Forsythe	36.856	1	180.105	.000

a. Asymptotically F distributed.

Contrast Tests

Contrast	Value of Contrast	Std. Error	t	df	Sig. (2-tailed)
Total Assume equal 1 variances	-1.9569	.32149	-6.087	184	.000
Does not assume 1 equal variances	-1.9569	.32235	-6.071	180.105	.000

Analysis - all groups are differing at .05 significance level.

ONEWAY Total BY Age

Descriptive

Total								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
below 25	52	34.0962	3.93207	.54528	33.0015	35.1908	25.00	41.00
25-35	42	36.9286	3.41012	.52619	35.8659	37.9912	31.00	44.00
35-45	48	39.6667	3.25075	.46921	38.7227	40.6106	34.00	47.00
above 45	44	42.7955	3.43430	.51774	41.7513	43.8396	37.00	51.00
Total	186	38.2312	4.79023	.35124	37.5382	38.9241	25.00	51.00

Test of Homogeneity of Variances

Total

Levene Statistic	df1	df2	Sig.
1.046	3	182	.374

Analysis – the value Levene Statistic is more .05 so the groups are homogenous

ANOVA

Total	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1975.928	3	658.643	52.828	.000
Within Groups	2269.131	182	12.468		
Total	4245.059	185			

Analysis – the value of sigma is less than .05 which shows that the groups are differing

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Total

	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	below 25	25-35	-2.83242*	.73254	.001	-4.7318	-.9330
		35-45	-5.57051*	.70676	.000	-7.4031	-3.7379
		above 45	-8.69930*	.72327	.000	-10.5747	-6.8239
	25-35	below 25	2.83242*	.73254	.001	.9330	4.7318
		35-45	-2.73810*	.74605	.002	-4.6726	-.8036
		above 45	-5.86688*	.76171	.000	-7.8420	-3.8918
	35-45	below 25	5.57051*	.70676	.000	3.7379	7.4031
		25-35	2.73810*	.74605	.002	.8036	4.6726
		above 45	-3.12879*	.73696	.000	-5.0397	-1.2179
	above 45	below 25	8.69930*	.72327	.000	6.8239	10.5747
		25-35	5.86688*	.76171	.000	3.8918	7.8420
		35-45	3.12879*	.73696	.000	1.2179	5.0397

*. The mean difference is significant at the 0.05 level.

Analysis - all groups are differing at .05 significance level.

Homogeneous Subsets

Total

Age	N	Subset for alpha = 0.05			
		1	2	3	4
Tukey HSD ^a					
below 25	52	34.0962			
25-35	42		36.9286		
35-45	48			39.6667	
above 45	44				42.7955
Sig.		1.000	1.000	1.000	1.000

Tukey B ^a	below 25	52	34.0962			
	25-35	42		36.9286		
	35-45	48			39.6667	
	above 45	44				42.7955

Means for groups in homogeneous subsets are displayed.

ONEWAY Total BY Education

Descriptive

Total								
					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
under graduate	46	33.3478	3.41381	.50334	32.3340	34.3616	25.00	39.00
Graduate	38	36.8158	2.88383	.46782	35.8679	37.7637	29.00	43.00
post graduate	55	39.4727	3.60994	.48676	38.4968	40.4486	32.00	47.00
above pg	47	42.7021	3.33568	.48656	41.7227	43.6815	37.00	51.00
Total	186	38.2312	4.79023	.35124	37.5382	38.9241	25.00	51.00

Test of Homogeneity of Variances

Total

Levene Statistic	df1	df2	Sig.
1.375	3	182	.252

Analysis – the value Levene Statistic is more .05 so the groups are homogenous

ANOVA

Total					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2197.375	3	732.458	65.102	.000
Within Groups	2047.684	182	11.251		
Total	4245.059	185			

Analysis – the value of sigma is less than .05 which shows that the groups are differing

**Dependent Variable:
Total**

	(I) Education	(J) Education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	under graduate	graduate	-3.46796*	.73530	.000	-5.3745	-1.5614
		post graduate	-6.12490*	.67019	.000	-7.8626	-4.3872
		above pg	-9.35430*	.69568	.000	-11.1581	-7.5505
	graduate	under graduate	3.46796*	.73530	.000	1.5614	5.3745
		post graduate	-2.65694*	.70756	.001	-4.4916	-.8223
		above pg	-5.88634*	.73175	.000	-7.7837	-3.9890
	post graduate	under graduate	6.12490*	.67019	.000	4.3872	7.8626
		graduate	2.65694*	.70756	.001	.8223	4.4916
		above pg	-3.22940*	.66629	.000	-4.9570	-1.5018
	above pg	under graduate	9.35430*	.69568	.000	7.5505	11.1581
		graduate	5.88634*	.73175	.000	3.9890	7.7837
		post graduate	3.22940*	.66629	.000	1.5018	4.9570

*. The mean difference is significant at the 0.05 level.

Analysis - all groups are differing at .05 significance level.

Homogeneous Subsets

Total

Education		N	Subset for alpha = 0.05			
			1	2	3	4
Tukey HSD ^a	under graduate	46	33.3478			
	graduate	38		36.8158		
	post graduate	55			39.4727	
	above pg	47				42.7021
	Sig.		1.000	1.000	1.000	1.000
Tukey B ^a	under graduate	46	33.3478			
	graduate	38		36.8158		
	post graduate	55			39.4727	
	above pg	47				42.7021

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Quality	186	3.4892	.69156	.05071
Shine	186	3.5484	.65786	.04824
Designs	186	3.4355	.70414	.05163
Price	186	3.5108	.71463	.05240
Variety	186	3.4516	.72060	.05284
packaging	186	3.4032	.73063	.05357
Brand	186	3.4839	.75140	.05510
Service	186	3.4355	.72681	.05329
communication	186	3.4624	.74339	.05451
promotion	186	3.4946	.69163	.05071
durability	186	3.5376	.68275	.05006

One-Sample Test

	Test Value = 3.47					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Quality	.380	185	.705	.01925	-.0808	.1193
Shine	1.625	185	.106	.07839	-.0168	.1736
Designs	-.669	185	.505	-.03452	-.1364	.0673
Price	.778	185	.438	.04075	-.0626	.1441
Variety	-.348	185	.728	-.01839	-.1226	.0859
packaging	-1.246	185	.214	-.06677	-.1725	.0389
Brand	.252	185	.802	.01387	-.0948	.1226
Service	-.648	185	.518	-.03452	-.1397	.0706
communication	-.140	185	.889	-.00763	-.1152	.0999
promotion	.486	185	.628	.02462	-.0754	.1247
durability	1.351	185	.178	.06763	-.0311	.1664

Analysis – the company has to focus to improve the communication with the customers give the enhanced quality with better designs and packaging with better service as the value of T-Test is negative for these variables

RESULTS OF THE HYPOTHESIS TESTING

Hypothesis	ANOVA	Status
<i>Null Hypothesis -H₀₁: There is no significant difference about paint quality and customer satisfaction amongst customers classified by age using the Asian Paints in the city of Jodhpur</i>	Sigma of F-Test 0.000<0.05	Reject
<i>Alternative Hypothesis -H₀₁: There is a significant difference about paint quality and customer satisfaction amongst customers classified by age using the Asian Paints in the city of Jodhpur</i>	Sigma of F-h Test 0.000<0.05	Accept
<i>Null Hypothesis -H₀₂: There is no significant difference about paint quality and customer satisfaction amongst customers classified by gender using the Asian Paints in the city of Jodhpur</i>	Sigma of F-Test 0.004<0.05	Reject
<i>Alternative Hypothesis -H₀₂: There is a significant difference about paint quality and customer satisfaction amongst customers classified by gender using the Asian Paints in the city of Jodhpur</i>	Sigma of F-Test 0.004<0.05	Accept

<i>Null Hypothesis -H₀₃: There is no significant difference about paint quality and t customer satisfaction amongst customers classified by parent's income level using the Asian Paints in the city of Jodhpur</i>	Sigma of F-Test 0.000<0.05	Reject
<i>Alternative Hypothesis -H₀₃: There is a significant difference about paint quality and customer satisfaction amongst customers classified by parent's income level using the Asian Paints in the city of Jodhpur</i>	Sigma of F-Test 0.004<0.05	Accept

INFERENCES AND IMPLICATIONS

The research indicates that all the groups classified by age; gender and income level differ in their customer satisfaction process in city of Jodhpur... The groups classified by age, gender and parents' income level also differ. T- Test shows that the dimensions like communication, quality and variety have negative values. The company must invest in giving assurance to the customers so as to build the trust and faith for better customer satisfaction.

The strategy to enhance satisfaction for the customers in the city of Jodhpur

2. The product quality needs continuous improvements because of the changing needs of the customers and the painters must have upgraded skills and competencies to give the best impacts.
3. The paint companies should launch the innovative varieties to enhance the customer choices and interest
4. Diversity of specialization should be added to the variety to enhance the customer satisfaction.
5. Skills differentiation of the painter can enhance the image and reputation of the companies in the society
6. The promotion should be done by building the awareness in the minds of the customers. This could include
 - Providing incentive and discounts
 - To foster good advertisement to appeal to the customers
 - To give the products at reasonable with good quality, packaging and value for the money invited.
 - Fostering the continuous improvement by bring the latest designs and impacts
 - Building the technological aids to foster good applications.
 - To build good communication with the customers.

CONCLUSION

The paint quality is essential for the better management of the customer satisfaction in any society. The desired quality enhances the loyalty and the repurchase intention of the customers. The company has provided quality and innovative courses to attract the customers and manage their customer satisfaction. The impact of globalization has given new challenges to the industry with better exposure to the modern trends. The company should give the value to customers by building the relationship based on trust and faith. The long term relationship can manage by the personalized communication process by better providing the honest information through the websites and the brochures.

REFERENCES

1. Athanassopoulos, Antreas D. (2000). "Customer Satisfaction Cues to Support Market Segmentation and Explain Switching Behavior," *Journal of Business Research*, 47: 191–207
2. Hallowell, Roger. (1996). "The Relationship of Customer Satisfaction, Customer Loyalty, and Profitability: An Empirical Study," *The International Journal of Service Industry Management*, 7 (4): 27–42.
3. Fornell, Claes. (1992). "A National Customer Satisfaction Barometer: The Swedish Experience," *Journal of Marketing*, 56: 1–18.