

Customer Satisfaction in After-Sales Service of Electronic Goods

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Abstract

This study aims at the discoveries of the factors affecting customer satisfaction in after-sales service. After-sales service which is a part of customer relationship management (CRM) helps to enhance a customer's loyalty. To date, there have been very minimum studies that were conducted by taking into consideration the after-sales service in business organizations particularly the electronic industry in India. Therefore from the data presented in this study, it can be expected that the findings can benefit both industrial and academician by giving a new source of ideas and information.

Research objectives of the study are as follows:

1. To explore the effects of delivery on customer satisfaction,
2. To explore the effects of installation on customer satisfaction and
3. To explore the effects of warranty on customer satisfaction.

Results indicate that there is strong relationship between the dependent variables of customer satisfaction and two independent variables i.e. installation and warranty. It can be concluded that the installation and warranty aspects are important for business organizations to make their customers satisfied and delighted.

Key words: After-Sales Service; Satisfaction; Electronic Goods.

Introduction and Literature Review

Customer relationship management (CRM) involves building and maintaining profitable customer relationships by dealing with all aspects of acquiring, keeping and growing customers (Kotler and Armstrong, 2010). "After-sales services" are often referred to as "product support activities", meaning all activities that support the product-centric transaction (Lele and Karmarkar, 1983). It also being defined as "customer support" elements where all activities that ensure that a product is available to consumers "over its useful lifespan for trouble-free use" (Loomba, 1998).

After-sales is a potential source of competitive advantage for the firm (Armistead and Clark, 1992; Goffin, 1999). Vitasek (2005) described after-sales service as a service that has been given to the customer after the products have been delivered.

However, according to Murthy D. N. P., et al. (2004) customer dissatisfaction can arise due to poor performance of the purchased item and/or the quality of warranty service provided by the manufacturer. The consequence of poor warranty servicing is more difficult and costly to rectify and hence it is very important that manufacturer avoids this occurrence in the first instance. Since non-conforming items have a higher failure rate, they tend to fail early and this affects consumer satisfaction.

From the above literature review, the influence of after sales service towards customer satisfaction is being found which may lead to customer satisfaction / dissatisfaction.

Research Methodology

Hypothesis Development

The following hypotheses are developed:

H1. There is no significant difference between deliveries and customer satisfaction.

H2. There is no significant difference between installations and customer satisfaction.

H3. There is no significant difference between warranties and customer satisfaction.

Research Design

This research is a quantitative research where information is gathered through personal interview. Instrument used in this survey was the structured questionnaire containing closed-ended questions. This study involved in describing the characteristics of a population or phenomenon, thus it's a descriptive study. Testing of Hypotheses was done to determine the influence of installation and warranty towards customer satisfaction.

The type of sampling was random probability sampling. Data were collected randomly from the respondents in exclusive showrooms of different companies (like Sony, LG, Samsung, Panasonic) in Burdwan district. The sample size was 100 i.e. 100 respondents had been interviewed for the survey.

Data Analysis Method

The techniques used in the analysis of this study were descriptive (mean, standard deviation) and inferential analysis (regression). In order to describe the sample characteristics in the data analysis report, demographic data (Section A) such as age, gender, occupational category are included in the questionnaire. In the succeeding section, Likert scale ranging from 1 to 5 (highly disagree to highly agree) is used.

Delivery was constructed in five measurement items, installation was constructed in five measurement items, warranty and customer satisfaction in four measurement items respectively. Pre-Testing of the questionnaire was made during the pilot study.

Results and Discussion

This section includes different statistical analyses and findings.

Factor Analysis

Based on KMO measure of sampling adequacy test in table 1, it was found that the factor analysis data was appropriate with the value of 0.807, which falls between the ranges of being great and appropriate of factor analysis data. Bartlett's Test was utilized with the result indicates a highly significant result with $p=0.000$ ($p<0.001$) and therefore factor analysis is appropriate.

Regression Analysis

Table 3 shows the R-Square and Durbin-Watson test. R-Square test result of 0.699 can be accepted for the regression analysis. The Durbin-Watson test result of 1.658, an indicator that the autocorrelation is almost reaching to zero or there is a significant difference existing between the dependent and independent variables (no autocorrelation). From the ANOVA in table 4, it appears that the three predictor variables are not all equal to each other and could be used to predict the dependent variable, brand loyalty as is indicated by F value of 70.748 and strong significance level of 0.000 ($p < 0.05$). In table 5, the results show that all of the variables are significant ($p < 0.001$) with high Beta (0.361, 0.265 and 0.385) and t value (5.789, 5.347 and 4.025). The VIF value of less than 10 for all variables show that the problem of multi-collinearity have not existed and all data are mutually exclusive. As for the interpretation, the test indicates that delivery, installation and warranty have significant influence towards customer satisfaction. By examining the t statistic for all the independent variables it is apparently confirmed that delivery, installation and warranty have significant relationship due to strong significant level ($p < 0.05$) with customer satisfaction, indicating that the null hypotheses are wrong and can be rejected.

Table - 1
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.807
Bartlett's Test of Sphericity	Approx. Chi-Square	622.14
	Df	71
	Sig.	.000

Table - 2
Rotated Component Matrix

	1	2	3	4
Receipt of the proper invoice	.785	.041	.152	.032
Shifting of product to the place of delivery	.718	.038	.318	-.205
Quality of the product at the time of delivery	.693	.229	.058	.293
Trustworthiness in delivery time	.653	.251	.167	.271
Quality of the product packaging during delivery	.605	.070	-.082	.560
Response time to attend to a warranty claim	.098	.758	.007	.162
Time for rectify a failed problem	.111	.798	.112	.118
Flawless of the installation	.321	.526	.477	.089
Seriousness of the installation personnel to avoid damages	.101	.016	.811	.200
Advice & instructions given by the technicians	.169	-.001	.612	.532
Time required between delivery & installation	.448	.368	.555	-.003
Exact information about time of installation	.148	.442	.511	.146

Table - 3
Result of R Square and Durbin-Watson Test

Model	R Square	Durbin – Watson Test
1	0.699	1.658

Table - 4
Result of Annova Test

Model	F	Sig
1	70.748	0.000

Table - 5
Result of Coefficients

Variable	Standardized Coefficients	t	sig	Tolerance	Co linearity Statistics
	Beta				VIF
1(Constant)	.392	.505	.611	.452	2.213
Delivery	.361	5.789	.000	.688	1.442
Installation	.265	5.347	.000	.611	1.639
Warranty	.385	4.025	.000	.740	1.323

Discussion

From the statistical result, it was found that delivery, installation and warranty to be significantly related to the customer satisfaction. All of these factors are important in delivering an acceptable after sales service performance that will be able to make the customer satisfied and delighted. A good delivery system always derived from pull strategy where demand ‘pulls’ rather than ‘pushing’ the product through marketing channels to final customers. Customers require products to be delivered at the right place, time and at the right price. However, companies often pay too little attention to their distribution channels, sometimes with damaging results (Kotler and Armstrong, 2010).

Apparently such circumstances can threaten to the existing seller-consumer relationship. Furthermore, factor such as the flawlessness of the installation process has an influence on customer satisfaction because it can reduce damages to the product as well as assurance for the product quality and reliability. Moreover, the installation task was carried out by an experience and expert employee of the company provider, thus creating delightful and satisfactory post purchase environment. Manufacturers and retailers of capital and consumer goods cannot consider that their active roles have ended with the sale (Levitt, 1983), but rather must provide their customers with a set of supporting after-sales services, such as installation packages, technical advice for use, maintenance/repair, spare parts delivery, product upgrading, etc. Lastly, offering better warranty terms convey greater assurance to buyers and can result in greater sales. Failure to deliver proper warranty service can have a negative impact on sales and hence negate the reasons for offering the warranty in the first place. This implies that product warranty logistic is very important from customer satisfaction as well from the manufacturer’s profitability point of view (Murthy D. N. P. et al.2004). Therefore, after-sales service is clearly important in satisfying consumer needs, an important factor in creating long term profitable relationship with the customer. After-sales may generate more than three times the turnover of the original purchase during a given product’s life-cycle, and often provides profitability higher than product sales (Alexander et al., 2002).

Conclusion

Based on the study, it can be concluded that the three significant factors involved in after-sales service are delivery, installation and warranty. It can be seen that customers really rely on the prompt delivery of the products, the installation response to be according to specification and requirement, and with the assurance of good quality products that are guaranteed for a certain period of time. When all these all three factors are being looked at professionally and efficiently, the reputation of the company will be enhanced and this will make the company much talked about among the consumers and competitors. To the manufacturers, the three factors in after-sales service are of utmost importance to build a long lasting profitable relationship with the existing customer. Such relationship will create a strong loyal customer base that will give the company a competitive edge for future survival.

As for recommendation, it is important that the company has to adopt a good after-sales service management to enhance the effectiveness and efficiency for serving the customer.

For example, by implementing extensive customer relationship management (CRM) with sophisticated software and analytical tools, this can help to integrate customer information and build stronger capabilities in delivery, installation and warranty.

Secondly, companies need to improve on the inventory management by keeping acceptable safety stock to avoid the delay in product delivery to the customer. Furthermore, it must always keep the lead time at the minimum possible as to meet the needs and wants of the customer. A good distribution system is required to ensure that the product can reach the customer at the right time and place.

Thirdly, pertaining to installation, the company must always train their staff to give cohesive and reliable services to the customers. Here, a good attitude towards working together throughout the installation process with the customer is needed so that the customer will be happy and delighted with the service.

Fourthly, there is a need to respond within a reasonable and acceptable period of time to the customer regarding the warranty claim. The company should not delay the claim made by a customer and try to fulfill it promises either by repairing or replacing with a new product.

Future research should focus on the similar study of factors affecting customer satisfaction in after-sales service in other prominent industries such as automotive, construction and other manufacturing as well as service sectors.

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