Value Marketing Strategy for After Sales Service of Select White Goods Using the Value Gap Model: An Assessment of Consumers in Delhi and Mumbai, India[†]

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In today's rapidly changing market place, impact of excellent after sales service has never been more important earlier years than now. Customers consider after sales service as a collective organizational responsibility rather than merely a functional activity. After sales service is a key differentiator as it generates profit and also can impact the product service mix. In today's services' dominated economies, organizations are moving from a product based to a customer based focus towards a solution provider Among four objectives set for study of after sales service, one of the purpose was to study perception of 690 consumers at Mumbai and Delhi, their experience of and expectations from the after sales service for select white goods like refrigerators, washing machines and microwave ovens, and to model and measure gap between consumer expectations and experience of after sales service and draw suitable inferences. For refrigerator after sales services there is an impending need to improve on availability of spare parts and competence of technicians. However for washing machines there is an impending need to improve on call centre services only. On the contrary, microwave oven users feel more than satisfied as they are between just met and exceeding expectation. Value marketing strategy is developed for each of the white goods, based on these and other inferences. It is required that the product must work as claimed by the manufacturer followed by good service and delivering on time. Value approach to marketing is nothing but creating, communicating, and delivering value to customer who sets the expectations.

Key Words: *After-sales-service, Customer expectation, Strategy gap, Time-based strategy, Value marketing*

INTRODUCTION

Indian economy witnessed rapid economic growth post-liberalization from 1990s. With the entry of foreign players there was competition to domestic manufacturing and

services sector. The reforms led to rise in middle and upper middle class income levels and affordability of quality goods increased and demand for white goods has been on increasing trend. While the information availability on various products has become easy through internet and other social media, consumer is able to make decision to purchase based on features, price and quality of the products. Marketing strategies of most companies focus on competing on product features, pricing and differentiation to capture the market share. However, with increased awareness and expectations of consumers on after sales service is leading companies to shift their focus of marketing to after sales service to retain customers and sustain business.

One of the leading consulting firms in their report on Indian economy stated that Indian economy is poised to grow further to become fifth largest economy by 2025. It also estimated that the consumer spending is expected to increase to USD3.6 tn by 2020 (McKinsey Global Institute, 2007). Another study by a leading Indian consulting organization mentioned that it is the huge middle class which drive consumption of consumer durables, food and housing. All eyes are focussed on India as there are increasing disposable incomes. Consumer durables industry in India is categorized into white goods, kitchen appliances or brown goods and consumer electronics devices. White goods have refrigerators, washing machines, air conditioners, microwave ovens (IBEF, 2016). Industry sources observe that across the consumer durable industry customer service and technology have improved significantly. More importantly customer service helps ensure that customers are engaged with the brand they bought. In today's VUCA world, companies are constantly re-evaluating their strategy to enable them in differentiating from competition. Many companies are discovering the need to go beyond technology. Service gives amazing competitive advantage to a company (Capgemini Consulting, 2011).

EVOLUTION AND TRENDS IN CUSTOMER SERVICE

Customers, who acquire various types of durables ranging from refrigerators to computers, require customer support at some time during their utilization or product lifespan to ensure that products perform as and when required in a trouble free manner, thereby giving peace of mind to customer. Customer service an essential component of customer support is used by most to mean set of related activities to connect to consumer with respect to product the customer acquired. Customer service generally includes factors like delivery on time; customer education, efficient management of customer queries, product check-up, product training, billing and payment collection. Leading authors mentioned that any customer service must have four characteristics, viz., uniqueness; consistency; deliver the core brand promise; and generate awareness. Many authors assign a lot of importance to customer support or after sales service for various reasons like it is a potential source of revenue; it is critical to keeping customer satisfied and strive for a long term relationship; and has a definite role in success rate

of adoption of new products. More often than not dissatisfied customers can act spoil sport and upset sales.

Several authors mention that customers were more willing than ever to assist and participate in the service process on a self-service basis and expect 24x7 hours of service by default. More importantly customers expect manufacturer/service provider to be monitoring their communications, complaints, and compliments, regardless of channel (Capgemini Consulting, 2011).

Globally manufacturers are updating customer service strategies to ensure that they address the issue of mobility of customer; be available across all channels and all the time; incorporate self-service tools; be available on social media platform and more importantly live chat with consumer.

According to a leading market research company a majority of US online adults are likely to abort their online purchase if they can't find a quick answer to their question and attach huge importance to valuing their time.

LITERATURE REVIEW

Customers, who acquire various types of products ranging from refrigerators to computers, require support at some time during their utilization or product lifespan so that they can get maximum value from their purchase. After sales support or service is part of a broader customer support, which is timeless and unchanging.

Mathe and Shapiro (1993) mention that after sales service goes beyond solving problems or attending to customer's requirement. Manufacturers and service providers of consumer durables need to anticipate after sales needs at product design stage and move away from the traditional approach to after sales service centers as limited to only technical interventions.

Many of the definitions for after sales service vary with respect to the context and role of after-sales service within the manufacturer's value chain. The following definitions of after sales service throw light on different contexts and roles. After sales service is:

1. All activities that help in sustaining both superiority and consistency of the product, acquired by the customer and utilizing the product or service with the goal of making certain that customer is satisfied. (Ehinlanwo and Zairi, 1996)

2. A bundle of activities for a firm to be involved in after purchase of its product by a customer so that potential problems related to product usage are reduced and all aspects of customer's consumption experience are maximized to delight the customer. (Asugman, Johnson and McCullough,1997)

3. A set of activities that product companies need to focus on related to what customer does after the purchase of the product and more importantly rendering assistance to customers in the usage, upgradation and elimination of product. (Saccan, Songini and Gaiardelli, 2006)

4. Laundry of services to the customer after the product is supplied. (Rigopoulou, Chaniotakis, Lymperopoulos and Siomkos, 2008)

5. Cumulative result of activities that happen post product purchase to make certain that the product can be painlessly used by customer. As a result the firm needs to have continuous availability of the product and services (preventive maintenance); and replace defective/non performing products as and when required and in a cost-effective manner (reactive maintenance). (Fazlzadeh, Bagherzadeh and Mohamadi, 2011)

Most organizations find over a period of time the change from product to service providers is a continuous process. However challenge is to incorporate more product-related services (Mont, 2001). More often than not consumers do not specifically demand products, but look for functionalities that these products provide in relation to their usage/application (Mont, 2001). The various phases of product to service continuum make companies monitor shift constantly and do improvizations in product and services. According to Heskett, Sasser and Schlesinger (1997), there are four rudiments of any service that impact "customer satisfaction". They are: product, support services, recovery process, and finally extraordinary service. The customer needs and expectations are constantly evolving and changing all the time.

Let us examine how customers determine their expectations. Oliver (1997) mentions that a customer consciously/unconsciously predicts how the service is likely to be performed and how it is going to add or discount expectations. Customers continually compare the various services, got by them over a period of time, according to certain familiar criteria. Zeithaml and Bitner (2003) mention that customer expectations of service are beliefs about service are judged by the customer. There is a need to thoroughly understand customer expectations because customers constantly compare their perceptions of performance with referral points when evaluating service quality. Being knowledgeable about customer expectations is important so as to deliver quality service. The highest level of customer expectations is termed as desired service and threshold level of acceptable service as adequate service, which is the minimum tolerable expectation. The extent to which customer recognizes and is willing for variation is termed as zone of tolerance. Markeset and Kumar (2003) made a very important observation, that while developing products/services one has to factor in consequences and benefits which set customer expectation and impacts satisfaction. Customer satisfaction is finally determined by the types of interaction of customer with the company; as also extent of experience by customer of various services provided during life of the product, which can impact customer relationship with the company.

In the past customers based purchase decisions on tangible aspects only, but today the same is impacted by tangible and host of intangible needs. Companies need to focus and build on intangible aspects of product like providing FAQs on product; customer education; setting up user community and so on. Companies must try to ensure a stable relationship with the consumer during the product's lifetime (Panizzolo, 2008).

Booz and Hamilton conducted a study across various sectors located in Europe and the Middle East. The study identified that there were five ways to becoming a successful customer service practitioner by stressing on intangible aspects, viz., power on services to get revenue growth, innovatively handle customers, integrate locations, push customer focus, and most importantly develop good customer management systems. It is imperative to shift to active customer engagement/encounter is one of the most rudimentary changes needed. It is important for organizations to discover new customer requirements by using interactions with customer to generate new ideas and adopt technology to innovate and add new services and set up newer bolder ways of customer interactions (Hölbling, Künstner, Marsch, and Steinkrauss, 2009). Neely, Benedettini, and Visnjic (2011) assisted Booz and Hamilton and analyzed the incidences of companies providing solutions of product and service by surveying manufacturing companies. of which more than 30% belonged to the developed economies. Neely, Benedettini, and Visnjic (2011) observed that companies in BRIC countries need to be motivated to move towards bundling products with varied customer service, including after sales service.

Murali, Pugazhendhi and Muralidharan (2006) highlighted that after sales services is an important strategy in the consumer durable space as it permits companies including retailers to achieve enhanced revenue with surplus. The study mentioned that consistency was identified as the major factor on after sales service performance of products.

Fazlzadeh, Bagherzadeh and Mohamadi (2011) understood impact of after-sales services on customer satisfaction and also on intention to re-purchase. The authors referred to studies which showed that satisfaction, loyalty, and profitability are interrelated. After-sales services can help service providers or manufacturers to strengthen their service operations and be different from competition.

Choudhary, Akhter, Asif, Choudhry, Siddique, and Mughal (2011) found out that for home appliances, delivery schedule, installation, warranty terms, implementing feedback and superiority of services were critical. After-sale service is very important in retention and satisfaction of customers.

Abu-ELSamen, Akroush, Al-Khawaldeh and Al-Shibly (2011) studied the linkage between service management skills and customer loyalty among Jordan's mobile service operators. The study found that overall, functional, and technical aspects of customer service culture had direct relationship with customer service satisfaction dimensions.

From a study in South East Nigeria it was inferred that even the best of products may not function if they are not in sync with consumers' perceptions of quality or if there is inadequate proactive service. The study showed that after-sales services hugely impacted consumers' perception of loyalty. The study also suggested that firms need to ensure that customer service is integrated with product and it is essential to adopt effective pricing strategy (Oko and Onuoha, 2013).

In Iran a significant number of domestic appliances were provided by the foreign companies (particularly China, South Korea, Turkey and Japan). The results of the study showed that citizens of Bushehr were not content with after sale services for house appliances by the companies, dealers and shops. The extent of dissatisfaction among dealers and repair shops was more for domestic products than that for foreign products (Esmaeilpour, 2014).

EIU (2010) has a report based on two surveys conducted in ten markets across Asia. The report mentions that there is tremendous scope for customer service to become a key source of differentiation in Asia. Companies in Asia are not giving impetus and importance to customer service. Srivastava (2007) found that Korean firms focused on customer relationship with Indian customers. The Koreans, unlike Indian or other foreign manufacturers aimed at first generating top of the mind awareness, brand equity and selling large quantity of products, and later over a period of time investing in building manufacturing units and increasing market share. The Korean companies found that the consumer is both value and price conscious. Customer satisfaction index was computed based on ratings for product demonstration; product quality; ease of use; quality of after-sales service; and overall service provided. The index was low for after-sales service and overall service for LG and Samsung.

Watanabe, Kihara, Kadobayashi and Soni (2014) while discussing about Indian home appliance market as being representative of India's vast consumer market, indicated that with regard to after sales service, challenge was in choosing, managing and training local partners. In order to develop products consideration must be given to boost attitude of Indian consumer who chooses products with emphasis on product quality, price, durability and after sales service. Unlike Japan, Indian market was not yet dominated by leading home appliance retailers and there exists a possibility of organizing independent mom and pop stores. While Videocon had dealer network of around 50,000 stores and owned 1619 after sales service centres pan India, Godrej had 19,000 small independent and multi-brand chain stores, and had tied up with India Post to reach villages and had 370 service centres pan India.

Naseema (2016) was of the opinion that white goods in India, were perceived as "time saving goods", but their purchase was based on product's features rather than by influences other people exert. The study made use of primary data from 200 customers in Mallappuram, located in the south of India (besides using secondary data) with the

objectives to assess customer's attitude towards after sales service of white goods and to know whether they were satisfied with overall after sales service. It was found that customers were satisfied with after sales service; find service charges/cost reasonable; satisfied with courtesy and services of service staff; and problem were resolved promptly and rectified satisfactorily.

Various studies have confirmed that after-sales service needs to be part of marketing strategy and not limited to handling customer complaints and related issues. It now redefines how product and services can be used for solutions offered to the customer and also demands a relook at organizational structure. The white goods market leveraging on the complex services demands a long term sustainable relationship with manufacturer or service provider (Watanabe, Kihara, Kadobayashi and Soni, 2014). Globally after sales service is considered to be integral to a brand, hence it is important to integrate product and service at product design stage and attempt to offer wide ranging solutions so as to impact on overall marketing strategies (Barlow and Stewart, 2004).

Literature review showed that global studies focussed on the perception of after sales service across countries; and always previous experience was memorable; and more importantly customers compared service to certain standards. Use of technology to innovate and add new services and interaction is the way forward. Indian studies focussed on need to sustain competitiveness by managing value chain and enabling customers to address future challenges. The real challenge is to choosing, managing and training local partners. A majority of households consider white goods as time savers and quantum of purchase has been on increasing trend.
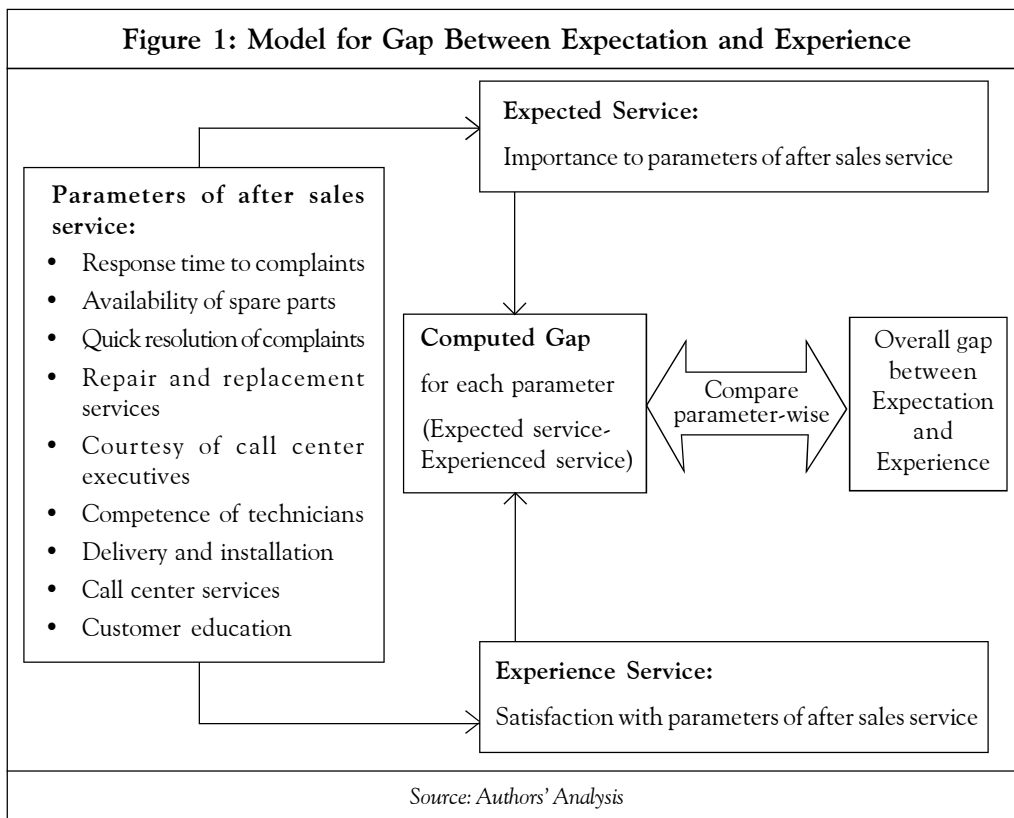
PURPOSE OF THE STUDY

A comprehensive research study was designed to see broadly as to whether select companies in the Indian white goods industry are aware that the after-sales service is no longer a cost centre but in fact a profitable stream of business provided it is integrated into the operations of the company. Most companies (both Indian and foreign) are not focusing much on the after-sales service in terms of well-connecting with customers post-purchase of white goods.

The white goods studied for research study included refrigerators, washing machines and microwave ovens. Four key objectives had been framed related to: (a) identifying the factors affecting consumer perception, experience and expectations; (b) identifying processes of rendering after sales service; (c) modeling and measurement of gaps between consumer expectations and actual delivery of after sales service; and (d) studying how the service department of white goods manufacturing companies need to function.

The purposes of this study therefore were as outlined below:

a) To study the perception, experience and expectations of consumers' in the cities of Mumbai and Delhi in case of select white goods like microwave ovens, washing machines and refrigerators.

b) To model and measure the gap between consumer expectation and after-sales service in the above scenario and to draw suitable inferences.

Every customer sets expectations by indicating importance of parameters of after sales service. To know whether the customer is satisfied with the delivery of service, one needs to check satisfaction level for the same parameters. This objective has been analyzed with regard to existing models of understanding gap between expectation and experience as also survey data leading to examining the relationship between computed gap between expectation and experience for various factors of after sales service and overall gap between expectation and experience for white goods. Figure 1 developed as part of current research to understand gap analysis and develop value marketing strategies. Consumer rating of importance for each of parameters of after sales service helps understand expectations of service set by them. Consumer rating of satisfaction for each of parameters of after sales service helps understand experience of service. The difference between expected and experience is the computed gap for each of parameters of after sales service. The computed gap for each parameter of after sales service is compared with actual overall gap between expectation and experience.

Figure 1: Model for Gap Between Expectation and Experience

Expected Service:
Importance to parameters of after sales service

Parameters of after sales service:
- Response time to complaints
- Availability of spare parts
- Quick resolution of complaints
- Repair and replacement services
- Courtesy of call center executives
- Competence of technicians
- Delivery and installation
- Call center services
- Customer education

Computed Gap
for each parameter
(Expected service-Experienced service)

Compare parameter-wise

Overall gap between Expectation and Experience

Experience Service:
Satisfaction with parameters of after sales service

Source: Authors' Analysis

HYPOTHESES FOR THE STUDY

Null hypotheses for the study are:

$H1_0$: *Computed gap between expectation and experience for various after sales service parameters is not significantly different from overall gap between expectation and experience for white goods.*

Alternate hypotheses for various parameters of after sales service are detailed below:

$H1_1$: *Computed gap between expectation and experience for availability of spare parts is significantly different from overall gap between expectation and experience for white goods.*

$H1_2$: *Computed gap between expectation and experience for competency of technicians is significantly different from overall gap between expectation and experience for white goods.*

$H1_3$: *Computed gap between expectation and experience for call centre services is significantly different from overall gap between expectation and experience for white goods.*

METHODOLOGY

Based on literature review and meeting with manufacturers/service providers a questionnaire was developed and administered to white good users at Mumbai and Delhi. The study had two phases, viz., pilot/pretesting survey and final survey. For pretesting the researcher got 96 respondents from Mumbai and 24 from Delhi. For final survey from over 583 pin codes in Mumbai researcher using convenience sampling selected 31 pincodes and in Delhi selected 7 out of 545 pin codes. From 690 respondents there were 690 refrigerator users; 611 washing machine users; and 446 microwave oven users.

Based on feedback from pretesting/pilot phase, the questionnaire for final survey contained questions of personal/family information (11 questions); close ended questions for Refrigerator (80 questions); close ended questions for washing machine (80 questions); close ended questions for microwave oven (80 questions). Each of the 80 close ended questions had close ended questions related to general information (8 questions); importance of factors during purchase (5 questions); importance and satisfaction of factors related to after sales service (18 questions); statements related to after sales service (46 questions); actual gap between expectation and experience (1 question); incurring expenses for spare parts and maintenance contracts (1 question); and recommending brand to others (1 question). Ratings for different parameters of after sales service were taken on an appropriate 5-point Likert scale. As a result researchers have also tried to understand the dynamics of development and maintenance of after sales service and its importance to the brand recall, recommendation and purchase of Annual Maintenance Contract (AMC) along with brand equity.

Literature review and qualitative research were also used to understand how after sales service is perceived by white goods or appliance manufacturers. In-depth interviews were done as part of this research study for a cross-section of the senior/middle management of manufacturers/service providers. During these in-depth interviews the participants were allowed to elaborate to enable get more information. There by participants could answer questions more on their own terms. For selection of companies, the researcher used purposive sampling method. As far as participant representing the company was concerned they were selected provided they are currently employed with the respective company for at least six months or more. For this study the researcher chose to interview individuals at middle and top management level. Data collection took place in the month of July 2016 where a smart phone was used to record the interviews and all interviews were fully documented word by word. All participants chose to have the interviews carried out at their offices where they felt more at ease and openly on the research topic. The questions were largely open ended questions with a few closed questions relating to information such as age, length of unemployment, type of position and role and so on.

DATA ANALYSIS AND RESULTS

The researchers used SPSS and codified all close ended questions and defined variable labels/formats. Validity of the instrument was measured through seeking views from experts, both academicians and practitioners in the area of after sales service, who assisted the researcher on the relevance of the scales in the instrument. The reliability of the questionnaires got enhanced through pre-testing of pilot samples from the field. With regards to the final survey close ended questions/factor/parameters/statements related to refrigerator/washing machine/microwave oven which use 5-point Likert scale to assess respondents response the researchers also checked reliability of responses to questions which have 5-point Likert rating scale using Cronbach's Alpha values and found all have Cronbach's Alpha values in the range of 0.738 to 0.878 more than 0.700.

DEMOGRAPHIC DATA

From a total of 690 respondents, all of them were found to be users of refrigerator; 88.55% were washing machine users; and 64.64% were microwave oven users. With regards to geographic distribution, 35.10% of respondents were in Delhi and 64.9% were based in Mumbai. As far as family size of refrigerator user was concerned 1.2% were singles; 11.90% were just 2 members; 21.30% with 3 members; 42.0% were having four members; and 23.60% were more than 5 members. As regards educational qualification of refrigerator users, 57.20% were graduates; 23.20% were Postgraduates; 19.0% were undergraduates; and 0.60% had other qualifications. With regard to geographic distribution, 33.20% of washing machine users were located in Delhi and 66.80% were in Mumbai. As far as family size of washing machine users was concerned

1.30% were singles; 11.30% were just 2 members; 19.80% with 3 members; 43.40% were having four members; and 24.20% were more than 5 members and 62.2% were graduates, 25.5% were postgraduates, 11.6% were undergraduates and only 0.70% have other qualifications. With regard to geographic distribution, 33.20% of microwave oven users were located in Delhi and 66.80% were in Mumbai. As far as family size for microwave oven users was concerned 1.60% were singles; 12.60% were just 2 members; 20.60% with 3 members; 43.0% were having four members; and 22.20% were more than 5 members and 63.90% of microwave oven users were graduates; 30.50% were postgraduates; 4.90% were undergraduates; and 0.70 have other qualifications.

SELECT PRODUCT DATA AND ANALYSIS

As far as the period of use was concerned, 16.40% of the respondents had used refrigerator for 1 to 3 years, 35.40% for 3.1 to 5 years, and 48.30% used for over 5.1 years; 14.90% of them had used washing machine for 1 to 3 years, 35.40% for 3.1 to 5 years, and 49.80% used for over 5.1 years; 44.60% of them had used microwave oven for 1 to 3 years, 44.60% for 3.1 to 5 years, and 10.80% used for over 5.1 years.

50.0% of respondents had their refrigerator under warranty and 50.0% without warranty. As far as opting for the annual maintenance (AMC) contract facility for refrigerator, 51.30% opted for AMC and balance 48.70% did not opt for AMC. 50.20% of respondents had their washing machine under warranty and 49.80% without warranty. As far as opting for the annual maintenance (AMC) contract facility, 58.70% had opted for and balance 41.30% had not opted for the contract. 87.90% of respondents had their microwave oven under warranty and 12.10% without warranty. As regards opting for annual maintenance (AMC) contract facility, 58.70% had opted for and the balance 41.30% had not opted for the contract.

HYPOTHESIS TESTING AND ANALYSIS

Using SPSS version 24.0, one-way ANOVA had been done of computed gap between expectation (importance) and experience (satisfaction) for each of the parameters of after sales service and compared with overall gap between expectation and experience of customer for refrigerator, washing machine and microwave oven respectively. ANOVA test normally report whether there is significant difference either between variables or within variables simultaneously, but it does not report where the significance lies. This is important for hypotheses which are one-tailed. Post hoc tests are able to tell the significant difference between each of the variables. Bonferroni post hoc test for repeated measure ANOVA was used for this study. If the homogeneity variance is more than 0.050 the variable/factor can be used for inference. If the homogeneity variance is less than 0.050 the variable is not used for any inference. The results and inferences are detailed in Table 1 for refrigerator, Table 2 for washing machine, and Table 3 for microwave oven.

Table 1: Results of Gap Analysis Using ANOVA for Refrigerator

Parameter of After Sales Service	p-Value	Homogeneity Variance Sig Value.
Computed gap response time to complaint-REFRI	0.132	0.860
Computed gap for availability of spare parts-REFRI	0.029*	0.097
Computed gap for quick resolution of complaints-REFRI	0.626	0.121
Computed gap for repair and replacement services-REFRI	0.406	0.039
Computed gap for courtesy of call centre executive-REFRI	0.071	0.638
Computed gap for competence of technicians-REFRI	0.032*	0.094
Computed gap for delivery and installation-REFRI	0.631	0.805
Computed gap for call centre services-REFRI	0.704	0.725
Computed gap for customer education-REFRI	0.148	0.628
Note: *$p<0.05$		
Source: Authors' Calculations		

Table 2: Results of Gap Analysis Using ANOVA for Washing Machine

Parameter of After Sales Service	p-Value	Homogeneity Variance Sig Value.
Computed gap for response time to complaints-WM	0.767	0.692
Computed gap for availability of spare parts-WM	0.874	0.579
Computed gap for quick resolution of complaints-WM	0.214	0.751
Computed gap for repair and replacement services-WM	0.754	0.053
Computed gap for courtesy of call centre executives-WM	0.984	0.169
Computed gap for competence of technicians-WM	0.750	0.120
Computed gap for delivery and installation-WM	0.334	0.694
Computed gap for call centre services-WM	0.002*	0.308
Computed gap for customer education-WM	0.188	0.016
Note: *$p<0.05$		
Source: Authors' Calculations		

Table 3: Results of Gap Analysis Using ANOVA for Microwave Oven		
Parameter of After Sales Service	p-Value	Homogeneity Variance Sig Value.
Computed gap for response time to complaints-MO	0.905	0.183
Computed gap for availability of spare parts-MO	0.829	0.645
Computed gap for quick resolution of complaints-MO	0.876	0.190
Computed gap for repair and replacement services-MO	0.242	0.081
Computed gap for courtesy of call centre executives-MO	0.123	0.530
Computed gap for competence of technicians-MO	0.363	0.931
Computed gap for delivery and installation-MO	0.781	0.605
Computed gap for call centre services-MO	0.557	0.425
Computed gap for customer education-MO	0.610	0.575
Note: *$p<0.05$		
Source: Authors' Calculations		

From Table 1 related to refrigerator the following points can be inferred:

a. In case of computed gap for response time to complaint; computed gap for quick resolution of complaints; computed gap for courtesy of call center executive; computed gap for delivery and installation; computed gap for call center services; andcomputed gap for customer education $H1_0$ is not rejected since p-values are more than 0.05 and homogeneity variance are also more than 0.05.

b. In case of computed gap between expectation and experience for availability of spare parts $H1_0$ was rejected and $H1_1$ is accepted as p-value is less than 0.05 and homogeneity variance is more than 0.05. So there is significant difference for availability of spare parts from overall gap between expectation and experience for refrigerator.

c. In case of computed gap between expectation and experience for competence of technicians $H1_0$ was rejected and $H1_2$ is accepted as p-value is less than 0.05 and homogeneity variance is more than 0.05. So there is significant difference for overall gap for competence of technicians between expectation and experience for refrigerator.

From Table 2 related to washing machine following can be summarized:

a. In case of computed gap for response time to complaint; computed gap for availability of spare parts; computed gap for quick resolution of complaints;

computed gap for repair and replacement services; computed gap for courtesy of call center executive; computed gap for delivery and installation; and computed gap for customer education $H1_0$ is not rejected since p-values are more than 0.05 and homogeneity variance are also more than 0.05.

b. However in case of computed gap between expectation and experience for call center services $H1_0$ is rejected and $H1_3$ is accepted since p-value is less than 0.05 and homogeneity variance is more than 0.05. So there was significant difference for overall gap for call center services between expectation and experience for washing machine.

From Table 3 related to microwave oven following can be summarized:

In case of computed gap for response time to complaint; computed gap for availability of spare parts; computed gap for quick resolution of complaints; computed gap for repair and replacement services; computed gap for courtesy of call center executive; computed gap for competence of technicians; computed gap for delivery and installation; computed gap for call center services; and computed gap for customer education $H1_0$ is not rejected since p-values are more than 0.05 and homogeneity variance are also more than 0.05. Therefore computed gap between expectation and experience for various after sales service parameters was not significantly different from overall gap between expectation and experience for microwave oven.

In summary, microwave oven users in both Mumbai and Delhi do not feel any difference between actual and computed gap between expectation and experience of after sales service. The mean score was 3.45 which meant that they are between just met and exceeding expectation. For refrigerator after sales services there is an impending need to improve on availability of spare parts and competence of technicians. However for washing machine after sales service there is an impending need to improve on call center services only.

In addition following related results were also derived:

1. A large number of consumers of refrigerator, washing machine and microwave oven who are using the product in excess of 1 year are seemingly not aware of meaning and differences between warranty and maintenance contract.

2. In case of refrigerator highest importance/expectation while acquiring refrigerator was for quality of product and this was well corroborated with highest satisfaction with customer education and closely was followed by delivery and installation.

3. In case of washing machine highest importance/expectation while acquiring washing machine was from quality of product and not well corroborated with highest satisfaction parameter which was availability of spare parts and followed by quick resolution of complaints.

4. In case of microwave oven highest importance/expectation while acquiring microwave oven was competence of staff and this well corroborated with highest satisfaction with quick resolution of complaints.

5. For all three products most companies had varied policies for Annual Maintenance Contracts (AMCs) post-warranty. But given that over 50% of consumers of refrigerator and washing machine did not opt for AMC indicates that there was huge potential for expanding revenue from AMCs by companies. Companies have to develop innovative marketing tools for AMC, as AMCs will ensure company can keep a watch for proper use of product thereby impacting quality of product and related benefits.

MANAGERIAL IMPLICATIONS

It is proposed that Indian companies in white goods space need to adopt 'value marketing strategy". What this means is that the product must work as claimed by the manufacturer followed by good service and delivering on time. Value approach to marketing is nothing but creating, communicating, and delivering value to customer who sets the expectations. This value will possibly include services before or after product is acquired and more importantly benefits like time saving, cost saving, etc., for different applications or use by customer. So, when a sales person sells the product under value approach to marketing, they are not simply selling the product only but mentioning all the different benefits under different usages/conditions.

Whilst communicating value, marketing is actually promoting the product through advertisements and promotions and as a result it is a process of informing the various customer benefits, savings, time and so on but simultaneously learning customer's desire and preferences. The last step is of delivering the value in terms of product and/or service at a place convenient to customer. This step is critical in the entire value marketing approach as it entails making sure that the customer gets the most of the product at a place convenient to the customer in terms of value for money or value of money. Consumers want products which perform and are more concerned about intrinsic value rather than about impressing people around them.

One will observe that value marketing strategy is possibly a combo of customer-oriented marketing strategy, one-to-one marketing and customer focussed marketing. Value marketing strategy has three components viz. quality strategy; customer-service strategy; and time-based strategy (Jain, 2004). For after sales service of refrigerators, there is a need for to build value marketing strategy by first focussing on quality strategy; next on customer service strategy; and finally time based strategy. Washing machine manufacturers and service providers may need to embrace first quality strategy,

second time based strategy and third customer service strategy. Microwave oven manufacturer/service provider may first need to address time based strategy followed by quality strategy and lastly customer service strategy.

Refrigerator manufacturers and service providers need to bear in mind that comparison between computed gap between expectation and experience and actual gap is significantly different for "Competence of Technician" and "Availability of spare parts". The fact that computed gap for expectation and experience for "Competence of Technicians" is significantly different from actual gap company needs to focus on developing strategies for "Competence of Technicians" across the board of technicians attending to refrigerators. This will include adoption of quality strategy thereby focusing on critical qualities of service personnel, identifying qualities of technicians and setting benchmark for competence of technicians, which all relate to improving on skill set for technicians. Therefore, the company will have to adopt generic quality strategy of "leapfrog" by getting ahead of competition and setting best practices for selection, deployment and continual improvement of technicians in line with customer demands. Thereby, there is a need for developing a strategic action plan for making all grades/types of technicians competent and it is an on-going process. A competent technician will reflect quality orientation and position of the company. For "Availability of spare parts" manufacturers have to focus on "time based strategy" and ensure that entire supply chain is integrated, responsive and cost effective. So for refrigerator value marketing strategy will essentially be a combination of quality strategy and time based strategy to eliminate gap between actual and computed customer expectation and experience.

Washing machine manufacturers and service providers need to majorly focus "Call center services", as it is observed that computed mean of gap between expectation and experience is significantly different from actual gap. There is a need to put in place "customer service strategy" by adoption of 'pull up' generic strategies like improving call center services; courtesy of service personnel; repair and replacement services; customer education programs; and responsiveness of call center. All these areas of after sales services are interrelated and can be enveloped by a software environment. All service and support personnel need to be trained and provide inputs in terms of frequently asked questions to ensure that every possible customer query is immediately addressed to satisfaction of customer. Call center services will possibly include recording of complaints, providing status; following up for appointments; coordination with technicians; encounter with irritant customers; taking feedback and closing a complaint.

There is also need for customer education programs, more in terms of minimizing abuse/over use and is from presale to various stages of post-sale depending on how extensively customer uses the washing machine directly or indirectly. All this needs

to be monitored closely and closures reviewed randomly and periodically. So for washing machine value marketing strategy will essentially be customer service strategy to ensure eliminate gap between actual and computed expectation and experience.

Microwave oven manufacturer/service provider may continue with current value marketing strategy as there is no significant difference of gap between actual and computed expectation and experience.

All white goods manufacturers need to adopt "quality strategy" and improve customer awareness and knowledge about warranty period and annual maintenance contract which will possibly result in higher revenue/profitability and increased customers opting for annual maintenance contracts.

LIMITATIONS OF THE STUDY

The research results and findings mentioned above have limitations with respect to scope and methodology. These limitations are however opportunities for further research. The first limitation was non-availability of time series data which was a major reason for not establishing linkage to sales of products. Second limitation is that the research has carried out studies in only two large mega metropolitan cities. Most white good manufacturers are focusing attention in Tier 1/Tier 2 cities in India and in years to come in rural markets. Thereby the third limitation of the study is results cannot be extended to Tier 1 city, Tier 2 city and rural markets. Fourth limitation is that study assumes that in India decision making for purchase and maintenance of household durables was jointly taken.

SCOPE FOR FURTHER RESEARCH

Looking at opportunities for future research there is scope for using regression and discriminate analysis for linking consumer information with company/industry business results. Next is extending scope of similar research to other metro cities and also across Tier 1 and Tier 2 cities. As we observed in the research, consumers of white goods are apparently not clear about warranty and annual maintenance and they need education. To manufacturer of white goods warranty management is important as it can result in tangible gains from activities which involve direct face-to-face customer interaction. Thereby offering manufacturers several opportunities to automate service contracts' administration and improve customer experience. Also, warranty information helps become vital source for all data related to various failure of actions, This data is critical as it helps improve or develop new product design. There is scope for research to evolve warranty management scope and policies and link to supply chain network management. There is also tremendous scope to do research and evolve servicing process as in the future with complex products and use of internet customers would look for solutions.

REFERENCES

1. Abu-ELSamen, A. A., Akroush, M. N., Al-Khawaldeh, F. M., & Al-Shibly, M. S. (2011). Towards an integrated model of customer service skills and customer loyalty: The mediating role of customer satisfaction. *International Journal of Commerce and Management*, 21(4), 349-380.

2. Asugman, G., Johnson, J. L., & McCullough, J. (1997). The role of after-sales service in international marketing. *Journal of International Marketing*, 5(4), 11-28.

3. Barlow, J. & Stewart, P. (2004). *Branded customer service – The new competitive.* San Francisco, CA: Berett-Kohler Publishers Inc.

4. Capgemini Consulting. (2011).*Customer service in 2020: Winning in a digital world.* Retrieved from http://ebooks.capgemini-consulting.com/customerservice2020/

5. Choudhary, A. I., Akhter, S. A., Asif, M., Choudhry, R. M., Siddique, Z., & Mughal, A. (2011). Impact of after sale service characteristics on customer satisfaction. *Information Management and Business Review*, 3(6), 360-365.

6. Economic Intelligence Unit (EIU). (2010). *Greater expectations: Keeping pace with customer service demands in Asia Pacific.* London, UK: The Economist. Retrieved from http://graphics.eiu.com/upload/customerservice_DHL.pdf

7. Ehinlanwo, O. O., & Zairi, M. (1996). Best practice in the car after-sales service: An empirical study of Ford, Toyota, Nissan and Fiat in Germany (Part 1). *Business Process Management Journal*, 2(2), 39-56.

8. Esmaeilpour, M. (2014). Analyzing after sales services in house appliances products and measuring customers' satisfaction: A survey in Bushehr, Iran. *International Journal of Marketing and Management*, 2(1), 62-79.

9. Fazlzadeh, A., Bagherzadeh, F., & Mohamadi, P. (2011). How after-sales service quality dimensions affect customer satisfaction. *African Journal of Business Management*, 5(17), 7658-7664.

10. Heskett, J. L., Sasser, W. E., & Schlesinger, L. A. (1997). *The service profit chain.* New York, NY: Simon and Schuster.

11. Hölbling, K., Künstner, T., Marsch, C., & Steinkrauss, N. (2009). *Next-generation customer service: The new strategic differentiator.* New York, NY: Booz & Company Inc.

12. India Brand Equity Foundation (IBEF). (2016). *Indian economic review.* Retrieved from https://www.ibef.org/download/Consumer-Durables- January-2016.pdf

13. Jain, S. C. (2004). *Marketing strategy – Planning, implementation and control.* New Delhi, India: Cengage Learning.

14. McKinsey Global Institute (2007). *The bird of gold – The rise of Indian consumer market*. Retrieved from https://www.mckinsey.com/global-themes/asia-pacific/the-bird-of-gold

15. Markeset, T., and Kumar, U. (2003). Design and development of product support and maintenance concepts for industrial systems. *Journal of Quality in Maintenance Engineering*, 9(4), 376-392.

16. Mathe, H., & Shapiro, R. D. (1993). *Integrating service strategy in the manufacturing company*. Suffolk, UK: Chapman & Hall.

17. Mont, O. (2001). *Introducing and developing a Product-Service System (PSS) concept in Sweden*. Retrieved from http://lup.lub.lu.se/record/525784

18. Murali, S., Pugazhendhi, S., & Muralidharan, C. (2006). Evaluation of performance of after sales service – A comparative study involving home appliances manufacturing firms. *ARPN Journal of Engineering and Applied Sciences*, 10(13), 5614-5619.

19. Naseema, C. M. (2016). Customers attitude towards after sales services of white goods. *Asia Pacific Journal of Research*, 1(43), 69-72.

20. Neely, A., Benedettini, O., & Visnjic, I. (2011, July). *The servitization of manufacturing: Further evidence*. Paper presented at the 18th European Operations Management Association Conference, Cambridge, UK.

21. Oko, A. N., & Onuoha, O. A. (2013). After-sales services and consumers' perception of quality: A study of refrigerator users (consumers) in south east Nigeria. *Business and Management Horizons*, 1(2), 56-83.

22. Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer*. New York, NY: McGraw-Hill.

23. Panizzolo, R. (2008). A methodology to measure the value of services provided to customers in manufacturing firms. *Measuring Business Excellence*, 12(3), 3-15.

24. Rigopoulou, I. D., Chaniotakis, I. E., Lymperopoulos, C., & Siomkos, G. I. (2008). After-sales service quality as an antecedent of customer satisfaction: The case of electronic appliances. *Managing Service Quality: An International Journal*, 18(5), 512-527.

25. Saccani, N., Songini, L., & Gaiardelli, P. (2006). The role and performance measurement of after-sales in the durable consumer goods industries: an empirical study. *International Journal of Productivity and Performance Management*, 55(3/4), 259-283.

26. Srivastava, R. K. (2007). How do Korean companies manage customer relationship with Indian customers? *Seoul Journal of Business*, 13(2), 127-138.

27. Watanabe. S., Kihara, H., Kadobayashi, W., & Soni, M. (2014). *Rethinking Indian business - The Indian consumer market begins to undergo structural change* (NRI Papers No. 193). Tokyo, Japan: Nomura Research Institute (NRI). Retrieved from https://www.nri.com/~/media/PDF/global/opinion/papers/2014/np2014193.pdf

28. Zeithaml, V., & Bitner, M. (2003). *Service marketing: Integrating customer focus across the firm.* New York, NY: McGraw-Hill.