Original Research Article

Aftersales Service Factors Determining the 'Would Recommend' Score in Mobile Phone Industry

Abstract

Customers' recommendations are strongly associated with sales growth and profitability. Satisfied loyal customers tend to recommend, but it doesn't happen always. Furthermore, a customer is exposed to aftersales services throughout the product lifecycle, which significantly impacts customer satisfaction and loyalty. This situation is more complex for the mobile phone industry, where innovative and short-lived products are launched every year. Providing aftersales services for these innovative products worldwide is challenging while maintaining customer satisfaction and loyalty. But, within a short mobile product lifecycle, customers' recommendations are crucial for growth. However, the aftersales service elements influencing customer recommendations are not well studied. This study aims to identify the elements of aftersales services that affect customers' recommendations. Three hundred and two mobile phone users of different brands, identified through the snowball sampling technique, were surveyed through a structured questionnaire. Multiple regression analyses of these data found five aftersales services: service center's support/repair, warranty, online support, upgrades, and delivery are statistically significant in influencing customers' recommendations for mobile phone brands.

Keywords: Loyalty, Net Promoter Score, Customers' Recommendations, Aftersales Services, Mobile Phone Industry

1.0 Introduction

Customer loyalty is the observable result of a customer's preference for one brand over another over time, resulting in an evaluative decision-making process (Jacoby & Kyner, 1973). Loyalty induces a range of customer behaviors such as repeat purchase, recommendations, convincing others to purchase, and suggesting product improvement (Heskett, 2002). Customers' attitude towards a brand has a direct bearing on the market share and, when associated with loyalty, can enable a company to charge a premium (Chaudhuri, 1999).

Loyalty not only impacts sales growth (Dugar & Chamola, 2021) but also costs and profitability. Loyal customers bring new customers to the company. It becomes cheaper for the companies to serve the loyal existing customers on the one hand, and on the other hand, companies need not spend any penny to bring new customers those results in market growth. Making customers loyal is, in fact, a more profitable strategy than price reductions or promotional schemes (Tepeci, 1999). Customer loyalty is a result of customers' experience with the company(Guan et al., 2021;

Petre et al., 2011), so brand owners must give great, memorable experiences to their customers. (Budi et al., 2021).

Customers' experience results from three touchpoints: pre, during, and post-purchase encounters (Hoyer et al., 2020; Jain & Bagdare, 2009; Klaus et al., 2013). Post-purchase or aftersales services involve a continuous interaction between the service provider and the customer throughout the product life. When a customer purchases a product, this interaction is formalized by a mutually agreed warranty or service contract. The nature of the product's lifelong engagement with the customers through aftersales services makes loyalty a sensitive issue. The aftersales service provider is always on customers' examination and evaluation, resulting in loyalty continuance.

Primarily, IT and consumer electronics and household appliance industries' aftersales service is a critical issue for customer loyalty (Saccani et al., 2006). Short product life cycle, ease of product and services switching, available substitutes, on-demand innovations, and diffusion and stiff competition among the competing brands make customer loyalty a golden deer in the electronics, IT, and especially mobile phone industry.

Around 180 million Bangladeshis own mobile phones, with 128 million owning internet-enabled smartphones (AMTOB, 2021). Many domestic and international brands are vying for market share in Bangladesh's fast-growing mobile phone market. Previously, it was assumed that the features and pricing of a mobile phone were the essential factors in determining customer satisfaction and loyalty. But, over the course of a few years, this perception has shifted towards improved after-sales services, which plays a vital role in loyalty (Dugar & Chamola, 2021).

But the company's biggest challenge is how to make a customer loyal (Zaidun et al., 2021). Thus, measuring a customer's loyalty, including repeat purchases and referrals to others, is a reasonable next step (Kumar Mishra et al., 2016). Researchers tried to measure loyalty using different tools such as SERVQUAL (Saidin et al., 2018), customers' perception of repeat purchases, and referrals to others. One of the most straightforward and widely used loyalty measures is the 'would recommend' score used in measuring the Net Promoter Score (Reichheld, 2003).

A thorough review of the literature reveals that numerous scholars have conducted extensive research into the relationship between aftersales services and loyalty (Malakar & Suwandee, 2021; Nasir et al., 2021; B. A. Othman et al., 2021; Purwati et al., 2020; Saidin et al., 2018), aftersales services and satisfaction (Nasir et al., 2021; B. A. Othman et al., 2021; Purwati et al., 2020), aftersales service, and brand equity (Ahmad & Butt, 2012), aftersales service and word of mouth communication (Ullah et al., 2018), aftersales services as a part of the marketing mix (B. Othman et al., 2021).

The majority of the topics that were investigated in these studies were as follows: the automobile industry (Ahmed & Sanatullah, 2011; Chawla & Singh, 2021; Malakar & Suwandee, 2021; Nasir et al., 2021; Saidin et al., 2018; SR, 2021; Wang et al., 2021), clothing (B. Othman et al., 2021), Hotel (Guan et al., 2021) and healthcare(Jiang et al., 2017). However, there has been very little research (Choudhary et al., 2011; Liu et al., 2019; Masoudinezhad, 2018; Nordin et al., 2016;

Xiangmin et al., 2010) done to determine the qualities or dimensions of aftersales services. In this context, there is a literature gap in understanding the elements affecting consumer loyalty of evolving innovative products such as mobile phones through aftersales services.

As a result, the purpose of this research is to determine the elements affecting consumers' 'would recommend' scores in the mobile phone business and their relative relevance. The findings of this study will add to the current after-sales literature and assist practitioners in developing policies and tactics to help cultivate loyal promoter mobile phone customers. Consequently, the following is the goal of this study:

1.1 Objectives of the study

- To identify the impact of after-sales service elements on the mobile industry's 'would recommend' score.

The rest of the paper is laid out as follows. The relevant literature and hypotheses were discussed in Section 2. Section 3 discusses the study's methodology. Section 4 presents the results of the data analysis as well as a discussion. The final section discusses the consequences, limitations, future research directions, and conclusions.

2.0 Literature Review

2.1 'Would Recommend' Score & Net Promoter Score (NPS)

Reichheld (2003) has developed the term' Net Promoter Score', which offers organizations a powerful way to measure and manage customer loyalty. The companies with the most outstanding net-promoter scores regularly get the most market share. The fundamental basis of the net promoter score is based on a single survey or feedback question to the customers; that is, "How likely is it that you would recommend [brand or company X] to a friend or colleague?" Based on the responses, the customers are clustered in the promoter, passively satisfied, and detractor. Net promoter score is found by deducting the percentage of detractors from the percentage of promoters.

This single score is so powerful and simple that it helps to benchmark and compare the internal performance of the companies within the regions, branches, service or sales representatives, and customer segments. Externally, it helps to compare against the competitors and know the best practices. The power of NPS lies in its strong relationship with companies' growth.

Although some studies found a link between customer satisfaction and companies' growth, in most cases, it is hard to discern, and, in some cases, there are inverse relationships. (Reichheld, 2003). For example, Kmart achieved a significant increase in the American Consumer Satisfaction Index (ACSI) rating but observed a sharp decrease in sales and went into bankruptcy. Moreover, even satisfaction has neither a significant influence on loyalty (Purwati et al., 2020) nor on NPS(Srirahayu et al., 2021).

On the other hand, loyalty results in repeated purchases, but it may not translate into companies' growth. Because loyalty primarily deals with customer retention, not growth. There are always chances however customer churn rate may exceed the retention rate. For example, a shift in taste, preference, and economic status may cause a customer to move to a different brand and remain loyal to the previous one. NPS seems to affect loyalty (Balan, 2012), but loyalty influencing NPS only results in sales growth(Srirahayu et al., 2021).

However, except for monopoly or new monopoly industries and software or computer systems industries, the 'Would Recommend' / NPS score was highly correlated with the companies' sales growth across industries (Baehre et al., 2022). In addition, customers' word of mouth effect and credibility make the 'would recommend' score so powerful that customers remain as repeated customers and help bring new customers for the company, affecting sales growth and profitability(Korneta, 2018).

Customer experience and emotional value affect the net promoter score (Situmorang et al., 2017). Customer experience influences NPS both directly and through emotional value. Customer experience for any purchase occurs in three phases: pre-purchase, during purchase (touchpoints), and post-purchase (aftersales). The companies make Pre-purchase efforts to attract customers and induce them to buy through different marketing strategies.

When the customers come to the store or website, the during purchase phase takes place. Salesperson behavior, communications, store environment, website aesthetics, ease of use, and comfort affect customer experience(Jung et al., 2016). Lastly, the aftersales services such as support, repair, warranty, delivery, etc., forms customer post-purchase experiences. Customer experience forms through these three phases directly impact customer satisfaction, loyalty, and NPS, leading to sales growth or profitability. This study will focus on the post-purchase effect on the 'would recommend' score.

2.2 Aftersales Service, Loyalty, and Recommendations

Customers tend to weigh the value of purchase with the after-sales services, which directly affect consumer satisfaction and indirectly affect customer loyalty (Hussein & Hartelina, 2021; Rangarao, 2013; Sugianto & Arifin Sitio, 2020; Wahjudi et al., 2018). Hence, after-sales services become a pivot point in customer relationship management (Rizaimy Shaharudin et al., 2009).

After-sales services are utilized as a part of CRM as a non-price competition technique to acquire a competitive edge, generate additional revenue, and ultimately provide customer value.(Gaiardelli et al., 2007; Majava & Isoherranen, 2019; Morschett et al., 2008; Sheth et al., 2020; Verstrepen et al., 1999). For example, companies earn 4% of revenue and 45% of gross profit from the aftermarket globally, and in India, mobile phone aftermarket is expected to increase to $1.1 billion by 2024 (SME Channels, 2019).

Moreover, after-sales service can also differentiate brands (Habib & Sarwar, 2021). It creates and enhances brand equity(Ahmad & Butt, 2012). The customer tends to value brands that provide quality after-sales services tend to make more loyal customers. These loyal customers value their brands more than other brands.

For example, Toyota differentiated its brand by superior after-sales services in the Philippines market (Balinado et al., 2021). Bayu et al. (2019) found despite Samsung being a solid brand, customers' repurchase decision has clung to product quality and after-sales services such as warranty, application assistance, and customer service.

In addition, good after-sale service results in customer satisfaction and loyalty (Hussein & Hartelina, 2021), resulting in customers' publicity (Verstrepen et al., 1999) through word of mouth or referral, or recommendations (Fazlzadeh et al., 2011; Nasir et al., 2021; Rangarao, 2013). As a result, many businesses are attempting to engage these satisfied consumers in referral marketing programs, which are far more cost-effective, believable to the friend/family member, have a wider reach into previously untapped markets, and better match referred customers' demands to a product or service. (Berman, 2016).

The term "referrals" or "recommendations" refers to positive interpersonal communication about a product or service (Wheiler, 1987). Aftersales service quality affects satisfaction (Knapp, 2019; Zeithaml et al., 2018), which in turn affects behavioral intentions (Rigopoulou et al., 2008). Behavioral intentions reflect in the form of the customers' repurchase, referrals and recommendations, and paying a premium price. Despite referral being crucial for companies' growth and profitability, studies have not addressed in-depth (Terho & Jalkala, 2017) what aftersales elements constitute customer reference, especially in the mobile phone industry.

Moreover, because of the intrinsic nature of hi-tech innovations, short product life cycles, manufacturing flaws, and the number of customers spreading worldwide after-sales services for mobile phones, particularly smartphones, are problematic (Rofman, 2017). To meet these challenges, mobile phone companies only provide a limited one-year guarantee for manufacturing flaws, excluding accidental damage (SME Channels, 2019).

Limited warranties are either covered by insurance or paying additional repair costs. For example, Indian customers spend an average of Rs. 2400 on smartphone repairs are primarily caused by charging, display, and software faults (Singh, 2020). Due to the challenging nature of the mobile phone industry, the elements of after-sales services are unique.

Aftersales services are closely related to the service product or installation and the service delivery dimensions of quality (Rigopoulou et al., 2008). However, further research addresses other dimensions of aftersales services apart from these two. In the later section, these elements of aftersales are discussed, and reverent hypotheses are developed.

2.2 Hypothesis Development

Rigopoulou et al. (2008) argued that aftersales service occurs in two stages: installation and delivery. For example, installing an air-conditioner just after purchase and later on service delivery in the form of any repair or warranty-related claim settlement. But, in the case of mobile phones, service delivery is most relevant rather than installation. Based on previous studies, the dimensions or elements of after-sales services except installation have been identified, and relevant hypotheses developed in relation to customer recommendations.

Warranty: A warranty is a written promise issued by the manufacturer to the purchaser of an item that will be repaired or replaced if necessary within a particular time frame. It is a tool of aftersales service (Bayu et al., 2019; Cohen et al., 2006; Lele & Karmarkar, 1983; Rahman & Chattopadhyay, 2015; Udell & Anderson, 1968) that give buyers peace of mind about the quality of the product. A warranty affects customer loyalty and improves profitability(Jung et al., 2016). Hence, it could be hypothesized that

H_1: Warranty influences would recommend score.

User Training: Mobile phone brands introduce new phones with new hardware and software each year. The users of these new phones, a hi-tech product, must be made familiar to the users to feel comfortable for error-free uses (Tsegaye, 2017). Thus, user training is another element of after-sales service (Cohen et al., 2006; Goffin, 1999; Lele & Karmarkar, 1983), and it could be proposed that

H_2: User guidelines/training influences would recommend score.

Online Support: The top five mobile vendor companies are Samsung, Apple, Xiaomi, Oppo, and Vivo (Yordan, 2022). These companies export mobile phones around the world. It is not cost-effective and rationale for these companies to maintain physical support services. For this reason, Xiaomi, for example, competes with Oppo in the Indian market by allowing the customer to interact in the online user community for software-related problem solving (Singh, 2020). Moreover, engagement, communication, and after-sales support through social media can increase sales (Nurdiana Nurfarida et al., 2021; Tong et al., 2021; Wang et al., 2021). As online support affects customer satisfaction, loyalty (van Riel et al., 2004), and word of mouth recommendations (van Riel et al., 2004), hence, it could be expressed that

H_3: Online support influences would recommend score.

Upgrades Upgrading mobile phones at a regular interval is one of the essential elements to ensure the product's effectiveness (Cohen et al., 2006; Goffin, 1999; Lele & Karmarkar, 1983). Mobile phone upgrades are offered in software and hardware. Mobile vendors offer hardware upgrades by exchanging new phones with old ones for extra bucks. Software upgrades have become a strategic issue. Except for Apple, all mobile vendors offer limited-time OS, UI, and security upgrades. The value proposition of Apple's mobile phone is lifelong software upgrades. (Majava & Isoherranen, 2019). Thus, it could be articulated that

H_4: Upgrades influence would recommend score.

Service center's support / Repair: Repair is the second element/component after the sales. For the top global brands such as Apple, Samsung customers didn't have the right to repair their products themselves beyond the vendor's own service center or recommended third-party service centers. This binding clause increased the cost of repair for the customers. Cost of repair, time to

repair, time taken to deliver a repaired product, and accuracy of repair play a crucial role in customer satisfaction of the product (Bayu et al., 2019; Levitt, 1983; Nemati et al., 2010; Singh, 2020; Soltani et al., 2021; Wetmore, 2004). Thus, it could be hypothesized that

H_5: Service center's support / Repair influences would recommend score.

Delivery: Delivery refers to the entire quality of all activities associated with the safe, dependable, and timely delivery of goods from the shop to the customer's premises, activities that should be characterized by traits such as politeness, precision, flexibility, and overall customer-centric behavior (Rigopoulou et al., 2008). Delivery as an aftersales service (Cohen et al., 2006; Kotler & Armstrong, 2010; Lele & Karmarkar, 1983; Majava & Isoherranen, 2019; Saccani et al., 2007; Wasing, 2013) significantly influence customer satisfaction and loyalty (Yusra & Agus, 2019). Thus, it could be hypothesized that

H_6: Delivery influences would recommend score.

2.3 Research Model

The following linear regression model can be constructed based on the hypothesis.

$$Y = c + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6$$

Y (would recommend Score) = *c(constant) + b_1(warranty) + b_2(user training) + b_3(online support) + b_4(upgrades) + b_5(service centre's support / Repair) + b_6(Delivery)*

The following methodology will be used to test this model empirically.

2.4 Methodology

Descriptive analysis and linear regression models have been used to analyze data collected from 400 respondents using an online survey with a structured questionnaire. Taking a 90 % confidence level with an error margin of 5 %, this study needs a minimum of 271 samples from 178 million mobile phone users in Bangladesh (BTRC, 2021).

A snowball sampling method is used from the target population to collect responses. The first part of the questionnaire included questions regarding demography, and the second part of the questionnaire had questions about the factors of aftersales services. To lessen the response bias, the respondents were well informed about the study and were given the option to withdraw anytime. A total of 350 responses were found useable (87.50 % response rate) and kept for data analysis. However, with a preliminary outlier analysis, 48 outliers were dropped, and hence the sample size ended up at 302.

All the assumption (linearity, normality, multicollinearity, and homoscedastic) of multiple regression analysis has been assessed. The collected data is analyzed with the statistical package for social sciences (SPSS). The output is presented in the table, and overall implications are explained.

3.0 Findings

3.1 Descriptive Analysis

The demographic analysis such as age, gender, education, and occupation of the respondents are shown in table 1. The respondents of this study were mostly young. Around 83% of the respondents lie below 30 years. The highest percentage was below 20 age groups, 41.7%. The participation was the least from the last two age groups: 40-50 years (2.6%), and above 50 years (0%).

Table 1: Age of the Respondents

Demography	Frequency	Percent	Cumulative Percent
Below 20 Years	126	41.7	41.7
20 - 30 Years	125	41.4	83.1
30 - 40 Years	43	14.2	97.4
40 - 50 Years	8	2.6	100.0
Above 50 Years	0	0	100.0
Male	123	40.7	40.7
Female	179	59.3	100.0
Undergraduate	159	52.6	52.6
Graduate	116	38.4	91.1
Postgraduate	27	8.9	100.0
Business	15	5.0	5.0
Job Holder	37	12.3	17.2
Housemaker	28	9.3	26.5
Student	222	73.5	100.0

Gender-wise female respondents were more than male respondents. Among the 302 respondents, 179 were female, representing 59.30% of total respondents. One hundred twenty-three male respondents were found, constituting 40.70 %. Among 302 respondents, 159 people are under-graduate, which accounts for 52.6 % of the respondents, 116 people graduated, 27 people are postgraduate, which constitutes 8.9 %.

As previously stated, using mobile is more significant among the young generation. Of 302 respondents, 222 are students, constituting 73.5% of the sample, 37 respondents are job holders counting 12.3 %, 5 % are businessmen, and 28% are homemakers.

3.1.2 Mobile Phone Types

A feature phone with features such as the ability to access the web and store and play music but not a touch screen is referred to as a feature phone. Here 16 % of respondents have been found using a feature phone.

Whereas a significant number, 84 % of respondents, use smartphones (see Figure 1). A smartphone is a mobile phone that can perform many of the operations of a computer, usually with a touch screen interface, internet connection, and an operating system capable of running downloadable programs.

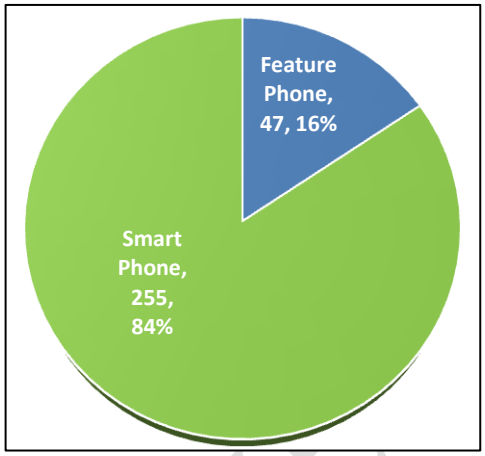


Figure 1: Types of Mobile Phone

3.1.3 Customer Cluster and Net Promoter Score (NPS)

The Bangladeshi mobile phone industry's Net Promoter Score (NPS) was found to be 4.6 (see Table 2). A score between 0 and 30 refers to good; higher than 30 indicates great, and over 70 means customers love you and your company (Grigore, 2021). Although the NPS of the Bangladesh mobile phone industry is in a good position, it is lagging behind the world mobile industry average of 43 (Question Pro, 2022).

Table 2: Customer Cluster and NPS

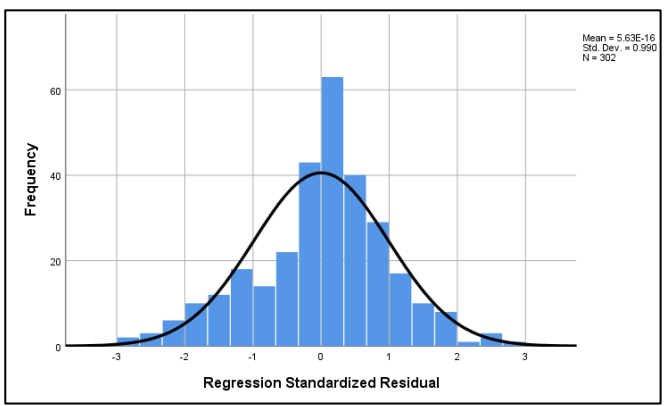
Customer Cluster	Frequency	Percent	Net Promoter Score
Detractors	93	30.8	4.6
Passively Satisfied	102	33.8	
Promoters	107	35.4	
Total	302	100.0	

3.2 Regression Analysis

Multiple regression was used to assess the ability of 6 control measures (Warranty, Online Support, Delivery, Upgrades, Service center's support / Repair and User Training) after-sales services to predict levels of promoter score. The first part of the assessment confirms the multiple regression assumption test, and the second part of the assessment states the model summary and hypothesis testing results.

3.2.1 Regression Assumption Test

Preliminary tests were carried out to confirm that the assumptions of normality, linearity, multicollinearity, and homoscedasticity were not violated.



An inspection of the normal probability plot of standardized residuals (Appendix-A), frequency of regression standardized residual (Figure 2) as well as the scatterplot of standardized residuals against standardized predicted values (Appendix-B) indicated that the assumptions of normality, linearity and homoscedasticity of residuals were met.

Multiple regression is sensitive to outliers. Mahalanobis (1936) distance (MD) did exceed the critical $\chi 2$ for df=6 (at α =.001) of 22.46 for six cases in the data file and forty-two cases in the casewise diagnostic. For reliability, forty-eight outlier cases were dropped. Thus, Cook's distance (Cook, 1979; Cook & Weisberg, 1982) residual value (Di) was 0.093, less than the critical value of 1.0, indicating that multivariate outliers were not of concern.

Figure 2:Probability Plot of Standardized Residuals

Moreover, relatively high tolerances for all six predictors (e.g., .582) and VIF less than 3(Kock, 2015) in the regression model indicated that multicollinearity would not interfere with our ability to interpret the outcome of the regression model (see table 3).

Table 3: Coefficients

Model	Understand. Coeff.		Stand. Coeff.	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.920	.647		1.422	.156		
Warranty	.398	.175	.147	2.277	.024	.536	1.864
User guidelines/training	.342	.201	.112	1.702	.090	.513	1.949
Online Support	.443	.185	.150	2.402	.017	.567	1.764
Upgrades	.321	.161	.124	1.998	.047	.582	1.718
Service Centre's support / Repair	.811	.167	.316	4.857	.000	.525	1.905
Delivery	-.501	.212	-.148	-2.358	.019	.566	1.766

3.2.2 Model Summary

In combination, six predictors (Delivery, Online Support, Upgrades, Warranty, Service Centre's support / Repair, User guidelines/training) accounted for 34.30 % of the variability in of promoter score, R^2= 0.343, adjusted R^2= 0.330, F (6, 295) = 25.70, p <.0001 (See Table 4 and 5).

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.586	.343	.330	2.132

Table 5: ANOVA [a]

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	700.882	6	116.814	25.700	.000[b]
	Residual	1340.839	295	4.545		
	Total	2041.722	301			
a. Dependent Variable: Would Recommend Score						
b. Predictors: (Constant), Delivery, Online Support, Upgrades, Warranty, Service Centre's support / Repair, User guidelines/training						

3.2.2 Hypothesis Test

Table 3 shows warranty (b=0.147, p=0.024), online support (b=0.150, p=0.017), upgrade (b=0.124, p=0.047), Service Centre's Support / Repair (0.316, p=0.000) and Delivery (b= -0.148, p=0.019) have statistically significant effect on the promoter score of mobile phones. Among them, Service Centre's Support / Repair is the most important dimension followed by online support and warranty. However, User Guideline / Training (b=0.112, p=0.090) does not significantly affect the recommended score. The summary of the hypothesis test is shown in Table 6.

Table 6: Summary of Hypothesis Test

Hypotheses	Proved
H_1: Warranty influences would recommend score	YES
H_2: User guidelines/training influences would recommend score	NO
H_3: Online support influences would recommend score	YES
H_4: Upgrades influence would recommend score	YES
H_5: Service center's support / Repair influences would recommend score	YES
H_6: Delivery influences would recommend score	YES

.

Finally, the regression model ends with the following equation after considering the hypothesis testing result.

Y (would recommend score) = 0.316 (Service Centre's support / Repair) + 0.147 (warranty) + 0.150 (Online Support) + 0.124(upgrades) - 0.148(Delivery)

4.0 Discussion on Findings

Overall services of the firms influence customers' satisfaction, loyalty, and recommendations. Customer services are rendered through three phases (Presales, During Sales, and Post-Sales). Post-sales services and their qualities are critical for any business organization because it bears a longtime commitment to the customers. Any single event or less than quality post-sale service may evaporate customer satisfaction and loyalty from the previous phases. On the other hand, consistent aftersales service quality will influence satisfied, loyal customers to recommend the product or services to friends and family, risking their credibility. However, not all aftersales dimensions are equally or even influencing the recommendations.

Findings of this cross-brand study reveal that the service center's support/repair service is the most critical factor for the recommendation. This finding supports the previous studies (Bayu et al., 2019; Levitt, 1983; Nemati et al., 2010; Singh, 2020; Soltani et al., 2021; Wetmore, 2004). Every year mobile phone vendors bring a new version of the phones. Unfortunately, the mobile phone repair market lacks the latest and specialized knowledge of the latest version just after the launch.

As a result, the Net Promoter Score for the Bangladeshi mobile phone users is only 4.6, whereas the world mobile phone industry average is 43. It seems the mobile phone companies are doing good, but they can do even better to achieve world standards. Mobile phone producers must pay extra attention to better product repair and maintenance in terms of hardware and software requirements.

Furthermore, because manufacturers compete fiercely to bring new phones to market, there are always defects and bugs. For example, Samsung's 7s had a battery explosion issue, and other new phone models, regardless of price, had security and bug issues in their early days. Repair or Service Centre Support costs money if the manufacturer offers no warranty. Thus, warranty becomes the second top priority of aftersales services for mobile phone users to recommend brands to others. This finding is also supported by previous studies (Bayu et al., 2019; Cohen et al., 2006; Lele & Karmarkar, 1983; Rahman & Chattopadhyay, 2015; Udell & Anderson, 1968).

However, mobile phone manufacturers are taking online and offline strategies to support and meet warranty claims. While most of the software upgrades and other issues are offered online, mobile phone vendors and carriers offer device upgrades for hardware. It helps the phone be updated for hardware, operating systems, security, and fixing bugs, and customers can maintain a mobile phone long without buying a new one (Çelik, 2021; Majava & Isoherranen, 2019). Thus, online support and upgrade are essential for customer recommendations.

But, delivery of these warranties, repair job, support can negatively affect the recommendation if not rendered, maintaining acceptable quality. Around the world, the time it takes for a product to be delivered after it has been purchased has become standardized. Consumers are well-informed about the lead time and can track their orders. Consequently, post-purchase mobile phone delivery doesn't affect the recommendation that much. What matters most is the time it takes to deliver upgrades, fix bugs, and repaired products. This finding confirms the previous studies (Cohen et al., 2006; Kotler & Armstrong, 2010; Lele & Karmarkar, 1983; Majava & Isoherranen, 2019; Saccani et al., 2007; Wasing, 2013).

However, in contrast to previous studies ((Majava & Isoherranen, 2019; Tsegaye, 2017)) user training was found to be insignificant for recommendations. Nowadays, mobile vendors sponsored unboxing videos and tutorials on YouTube and other social media sites, making the user guide and training irrelevant.

4.0 Conclusion and Implications

The recommendation is a single and the most vital loyalty identifier that is highly associated with sales growth and profitability. However, a systematic literature study reveals a knowledge gap in the area of the factors of aftersales services affecting customers' recommendations, especially in

the mobile phone industry. Therefore, this study explores the relationship between after-sales service elements and customers' recommendations to accommodate the knowledge gap.

Finding through descriptive and Multiple regression analysis found most respondents were young and educated and identified five aftersales service elements (service center support/repair, warranty, online support, upgrades, and delivery) are essential for their recommendation. The findings of this study have numerous theoretical and managerial implications.

This research has contributed to the aftersales literature by identifying the most critical aftersales characteristics that influence customer referrals. The mobile phone industry is unique for its innovations, time to market, customer spread, and upgrades. Thus, this study will meet the researcher's thrust of knowledge about innovative products' aftersales dimension, which has long not been studied.

Due to the spread of the users, vendor's capacity, and competitive strategies, mobile phone vendors adopt multichannel (physical and online) service delivery strategies, but maintaining services delivery through all the channels is complex (Saccani et al, 2007). Managers must attach a warranty with their new mobile phone as these are innovative products, and repair markets are incapable of repairing new products due to knowledge diffusion. As mobile phone manufacturers launch new innovative mobile phones every year, increased prototype testing ensures reliable products and may reduce warranty claims (Relich & Nielsen, 2021). The warranty claim must be met with adequate delivery time through the support center's quality services. Concurrently, the mobile phone vendors must provide the customer with online support that regularly gives operating system, security, and UI upgrades. Doing so will help the Mobile phone vendors achieve a world standard NPS score.

This research, like many other social science research initiatives, has limitations. The strength of this study would have been enhanced if the sample size had been increased. The outcomes of this study cannot be applied to another context without a cross-cultural investigation. Furthermore, context, environment, user interests, and preferences shift as technology evolves. Thus, factors that influence how technology is used evolve as well. In a future study, researchers can add or remove new characteristics and samples from the model to see if the findings are relevant in cross-cultural, cross-industry, and cross-country situations.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly used products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by the personal efforts of the authors.

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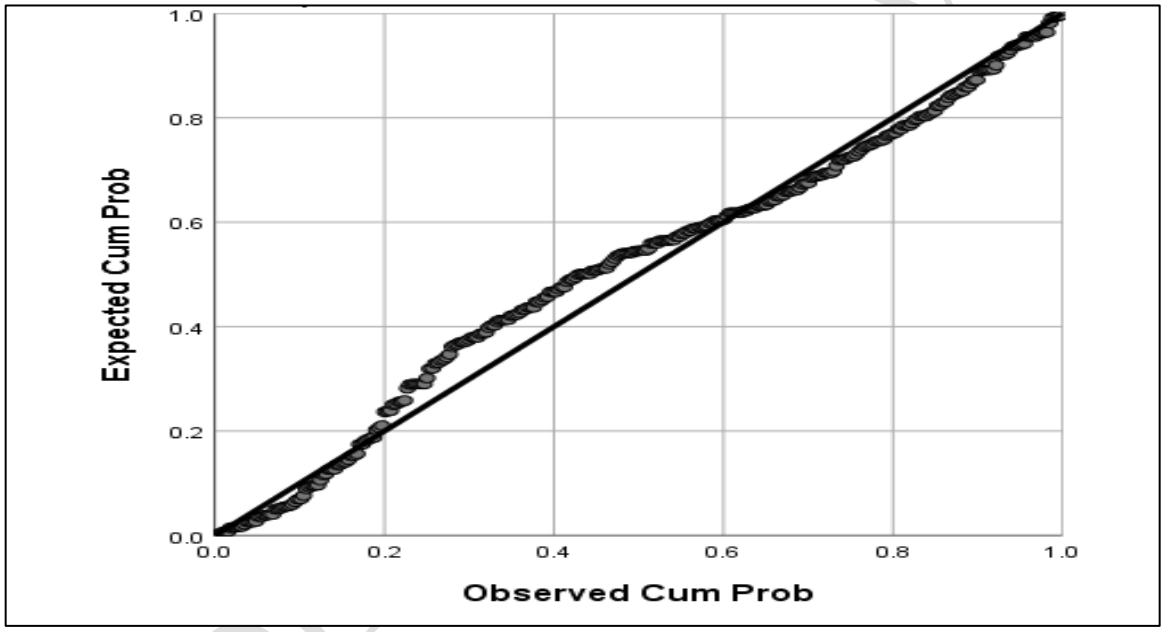
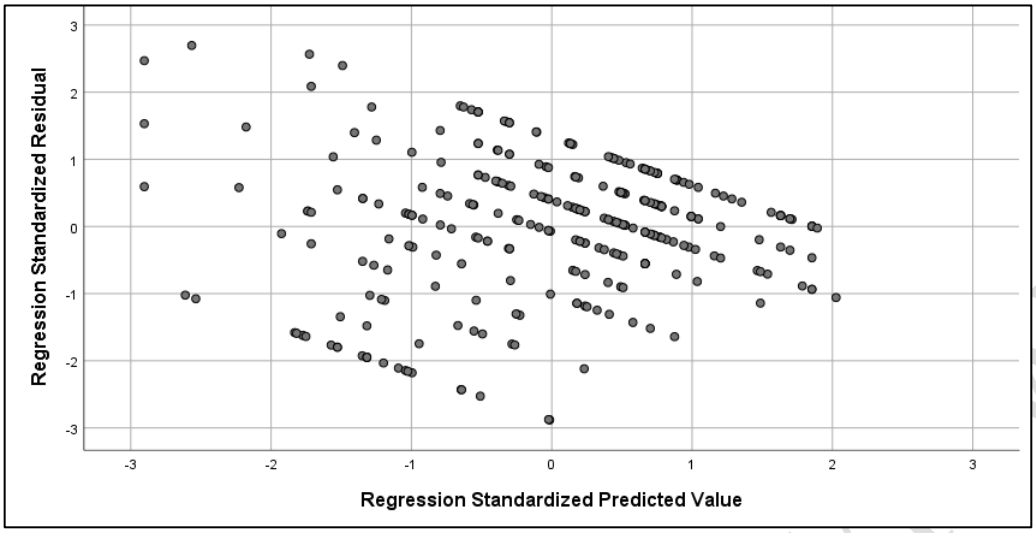
Appendix-A: Normal P-P Plot



Appendix-B: Scatter Plot



Appendix-C: Residuals Statistics [a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.74	10.26	7.17	1.526	302
Std. Predicted Value	-2.903	2.025	.000	1.000	302
Standard Error of Predicted Value	.150	.555	.313	.086	302
Adjusted Predicted Value	2.47	10.34	7.17	1.533	302
Residual	-6.143	5.749	.000	2.111	302
Std. Residual	-2.881	2.697	.000	.990	302
Stud. Residual	-2.984	2.783	.000	1.004	302
Deleted Residual	-6.590	6.122	-.001	2.173	302
Stud. Deleted Residual	-3.025	2.815	-.001	1.009	302
Mahal. Distance	.496	19.413	5.980	3.822	302
Cook's Distance	.000	.093	.004	.010	302
Centered Leverage Value	.002	.064	.020	.013	302
a. Dependent Variable: Would Recommend Score					