



The Role of Customer Relationship Management in Improving Customer Satisfaction in the Telecommunication Industry

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Abstract. Customer satisfaction holds sufficient prejudice in the telecommunications industry. This research analyzes customer relationship management to enhance customer satisfaction in the telecommunications industry. This research uses a quantitative approach under an exploratory design to study customer satisfaction impact on customer relationship management. 300 participants were selected through simple random sampling. The data was analyzed through SPSS, by using the coefficient of Pearson Correlation. The independent variable in the research is customer relationship management and the dependent variable is customer satisfaction. The results of the research show the value of Pearson correlation is 0.067, that shows that the correlation between customer satisfaction and customer relationship management is negligible or has no correlation. The p-value of the correlation is 0.245, that shows that there is only 24.5% chance that the independent variable, customer relationship management and dependent variable, customer satisfaction depend on each other, and the results of correlation are statistically insignificant.

Keywords: Customer Relationship Management, Telecommunications Industry, Customer Satisfaction, Pearson Correlation, Linear Regression.

1. INTRODUCTION

Customer relationship management has resurfaced as the core means to understand customer and service provider relationship. However, in earlier times, customer feedback and provision of services were separate. The organizations should have paid more heed to the feedback and thus carried on with their usual business routines. However, with technological advancement, competitiveness within the organization has grown manifold. The competitiveness helped the companies enhance their working policies, customer services, and organizational community guidelines to attract customers and manage the influx of better finances (Saima Tauni, 2014; Meeting Customers' Rising Expectations, Telecom's Top Challenge, 2023; A. Mulyana, 2020). With the world competing for better sales and return on investment in their products, companies also invest in regularizing tools and software to induce better sales and monitor customer satisfaction achieved over time. The telecommunications industry has been in the business for

decades, and this sector has witnessed an insurmountable change in the ideology of attracting customers and understanding their buying behaviour (Goyal & Arpan Kumar Kar, 2019; Hussain et al., n.d.).

Customer relationship management is of the utmost importance in the company's future. The technology related to the management of customer relationships helps the company understand the customer's behavior and the company's future. Management in customer relationship helps the company revamp their customer experience. Such companies constantly seek to improve customer service representation (Hashemi-Pour & Chai, 2023; Suharto Suharto & Yuliansyah Yuliansyah, 2023).

Companies should understand that customer relationship management is not limited to technology and that these companies cannot deliver outstanding results based only on customer relationship management. Companies must integrate the customer relationship management philosophy into their culture to improve their operating processes (Nasir, 2017; Elfarmawi, 2019). Without strategies related to customer relationship management, companies become competent in integrating the benefits of management in customer relationship. However, the primary research purpose is to understand the management of customer relationship strategies and their objectives.

Most research incorporates qualitative interviews and interview transcripts driven by the ideologies and understanding of experts in the telecommunications industry. These interviews are analyzed through quantitative tools and methods to understand the efficacy of management in customer relationship strategies in telecommunications sector. Moreover, data collected by these surveys is analyzed, and the customer feedback helps the researchers to identify key initiatives that must be implemented by customer relationship management of the organization (Hamza Alshenqeeti, 2014; Shaon & Rahman, n.d.).

The factors dependent on the initiative of customer relationship management are personalized communications, efficient resolution of issues by customer representatives, and proactive engagement in service provider and customer. Moreover, researchers have enunciated the evaluation and impact of software related to customer relationship management under the effect of different platforms and analytics tools to enhance the quality of customer service and understand the requirements and expectations of the customer. Furthermore, the research findings highlight the significance of management in customer relationship, in advocating and fostering a positive customer experience that is positive.

It helps to reduce churn rates and, ultimately, enhances overall satisfaction of customer in the industry of telecommunications (Eichorn, 2004). Numerous researches have been carried out to understand management in customer relationship and its viewpoint in context of the telecommunication industry and feedback acquired from customer satisfaction. Research is based on academic literature, driven over multiple years, understanding the contextual importance of management in customer relationship in the telecommunications sector. The research provided a review on the management of customer relationship. It also provided a comprehensive and ideal method to propose and classify the research into various control groups. Online research and surveys were analyzed through different databases to list all the research published under the conceptualities of management in customer relationship (Abu et al., 2024).

Literature Review

Management in customer relationship and satisfaction of customer is critical to any business. The industries have also understood customer relationship management importance. They have come forth with ample innovations that enhance customer satisfaction. Customer satisfaction has evolved from the Barter system, which was also a way to understand the importance of customer satisfaction. The era between the 1950s and 1970s was known as the Pre-PC Era, where the rolling dex, also known as Rolodex, was used to record customer data. The Rolodex was invented in 1956 to help business people record customer data. This technology helped with a layout for future work and innovations in customer relationship management. The 1980s to mid-90s was known as the era of the origin in the management of customer relationship.

This era incorporated the use of a contact management system that recorded the personal details of the customer. This era innovated and laid the foundation of modern customer relationship management. The first step in this era was the introduction of sales force automation that allowed tracking daily repetitive tasks, such as tracking, recording, and managing the pipeline. The era between 2000 and 2020 is the modern management system of customer relationship. In this era, the management of customer relationship, based on web systems, was adopted to help ease the processing of daily tasks. The era of 2000 was also known as the era of social media, in which the management system of customer relationship was integrated through social media platforms. However, artificial intelligence and customer relationship management enabled the customer relationship system to analyze larger volumes of data and information. The benefits of using customer relationship management with artificial intelligence include improved tracking of sales,

making automated suggestions, and generating customer insights for a valued process of decision-making (The Evolution of Customer Relationship Management | Vtiger, 2020; Wani, 2023).

Much research has been conducted on customer relationship management and satisfaction in specified locations. Researchers tend to focus on the trends and challenges adopted in locations. They have analyzed the performance of electronic management in customer relationship and marketing in the telecommunication sectors in Nigeria. This research adopts electronic management in customer relationship (CRM) to manage the customers and service subscribers in the telecommunication industry. The research objective is to understand electronic marketing variants and their impact on the company's performance in the market. Factors, for instance, e-service quality, web-based management in the customer relationship, management in customer relationship enabled by internet, and cellphone-based management in customer relationship, are discussed in this research to understand market perspective of companies in the telecommunication industry. This research used a questionnaire from 900 respondents who were customers of three firms: Edo, Delta and Anambra States. The analysis on regression analyzed the data collected from the respondents. The research results suggest a positive relationship between the variables of the study and marketing professional's performance in the firm. Factors like E-service quality, customer relationship management enabled by the internet, and mobile-supported customer relationship management were sufficiently crucial for the company's performance in the market. The research suggested that these factors should be increased to increase the company's essence in the market. Moreover, the researchers of this research have suggested incorporating management in customer relationship strategies in the telecommunications industry of Nigeria (Sunny & Abolaji, 2016).

Most researchers have helped manage customer relationship management projects in French telecommunication companies. These researches suggest using an integrated and balanced approach that involves the selection of a system and development in the company's organizational structure. The researchers have also suggested using a successful transition of organization and management in the company to implement effective customer relationship management strategies. These researchers have also revealed that integrating such projects helps the team develop their understanding while the implementation phase takes place. However, the effectiveness of such strategies also depends on the team's performance in the project, the efficiency of the approach

used, and the stakeholder coordination with the market and individual organizations in the telecommunication industry (Adel Beldi et al., 2010).

The fundamental concepts of customer relationship management are related to the tactics, strategies, and technologies used in the company. These technologies help build long-lasting relationships in the company and customers. In this way, customers remain satisfied with the company protocols, and thus, they keep coming for more. The concepts of customer relationship management give the company an effective method to manage interactions of the company's clients and the customers that are viable for the company's growth (Team, 2022).

Researchers have integrated the management of customer relationship to understand the satisfaction of customers in the industry of telecommunication. However, this research focuses on the impact and the role of management in customer relationship technology in enhancing satisfaction of customers in telecommunication industries and organizations in this sector. Moreover, with the help of quantitative and statistical testing, this research also helps understand if the management of customer relationship and satisfaction of customers have any significance or whether these variables are not dependent on each other.

Research Question

This research helps to find the relationship between management in customer relationship and satisfaction of customers in the telecommunications industry.

2. METHODOLOGY

Research Design

This research uses a statistical and quantitative approach under an exploratory design to study impact of management in customer relationship and satisfaction of customer in the industry of telecommunications.

Sample Selection

Three hundred respondents were selected through a random sampling technique. The research sample size was chosen to understand relationship between management in customer relationship and satisfaction of customer in the telecommunication industry.

Inclusion Criteria

The research respondents were selected based on their affiliation with the telecommunication industry. The study's inclusion criteria included professionals, industry

experts, employees working in the customer relationship department, marketing professionals, and employees working in the company's management.

Exclusion Criteria

The exclusion criteria of the research included respondents who were not affiliated with working in the telecommunication industry. Moreover, employees not part of a customer representation department were also excluded from the research criteria.

Research Paradigm

The research paradigm was taken as an inspiration from (Yogi Sugiarto Maulana et al., 2021). It consists of dependent and independent variables that are used in the research. Customer relationship management was considered the independent variable, whereas customer satisfaction was considered the dependent variable in the study. The variable of customer relationship management was incorporated to understand the customer representatives' identification, individualization, interaction, integration, and integrity through the customer relationship management tool. The variable of customer satisfaction was incorporated to understand the quality of products and services, the relationship of marketing with the customer representatives, the program of loyalty promotion in customer service providers, the concern with understanding the best customer service given by the organization, the system of complaint that is adequate, unconditional guarantees provided by the customer representatives, and the program incorporated by the organization that provides the employees, a raise due to performance improvement.

Data Collection

The primary data was collected with the help of a Likert scale that demonstrated to answer the research question. The research analyzed the answers collected from the questionnaire distributed to the study's respondents. The Likert scale helped measure the argument, perceptions, and social phenomena of respondents in the telecommunication industry. The Likert scale included numbers corresponding to the options given in the scale (1 for strongly agree, 2 for agree, 3 for neutral, 4 for disagree, and 5 for strongly disagree).

Data Analysis Technique

The research used the SPSS software to analyze the relationship between customer relationship management and customer satisfaction in the telecommunications industry. Product moment correlation coefficient analysis and simple regression analysis were used to measure the significance and impact of the two variables on each other.

Result and Discussion

The data was analyzed to study the effect and impact of customer relationship management on customer satisfaction in the telecommunication industry. Quantitative measurements on correlation coefficients, determination coefficients, and regression analysis were used.

Pearson Correlation Coefficient

The research utilizes the statistical product and solution service (SPSS) program to determine the correlation value between the two variables. Table 1 shows the output of the results.

Table 1: Pearson Correlation

		CRM	CS
CRM	Pearson Correlation	1	.067
	Sig. (2-tailed)		.245
	N	300	300
CS	Pearson Correlation	.067	1
	Sig. (2-tailed)	.245	
	N	300	300

Table 1 shows the value of Pearson Correlation for the independent variable, customer relationship management, and the dependent variable, customer satisfaction. The Pearson correlation value for customer relationship management is 0.067, whereas the Pearson correlation value for customer satisfaction is 1.

Table 2: Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.067 ^a	.005	.001	.54842

a. Predictors: (Constant), CRM

The result of the correlation coefficient is 0.067. Table 2 shows the correlation between customer relationship management and customer satisfaction: 0.067.

Table 3: Interpretation Guidelines

Coefficient Level	Relationship Category
0.00-0.199	Very low
0.20-0.399	Low
0.40-0.599	Medium
0.60-0.799	High
0.80-1.000	Very High

Based on the interpretation guidelines in Table 3, the correlation between customer relationship management and customer satisfaction could be more robust or negligible. It can also be sad that the two variables have almost no correlation.

Determination Coefficient

Table 4: Coefficients

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.417	.146		16.535	.000
	CRM	.064	.055	.067	1.165	.245

a. Dependent Variable: CS

The magnitude of the effect of customer relationship management on customer satisfaction is calculated using the coefficient of determination. Table 4 shows the results of the determination coefficient. The significant value of customer relationship management is 0.245. The results show that the influence of customer relationship management on customer satisfaction is 24.5%, thus showing that the influence of the two variables on each other is insignificant.

Regression Analysis

Table 5: Regression Analysis

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
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1	Regression	.409	1	.409	1.358	.245 ^b
	Residual	89.628	298	.301		
	Total	90.037	299			

a. Dependent Variable: CS

b. Predictors: (Constant), CRM

Regression analysis is a quantitative statistical method used to estimate the relationship between the dependent and independent variables.

It is used to analyze the strength of the variable to understand and assess the modelling and future of the relationship between the variables. Table 5 shows the regression analysis between the dependent variable, customer satisfaction, and the independent variable, customer relationship management. The value of F is 1.358, and the significance value is 0.245. It shows that the value of significance is a weak positive, showing no significance between customer relationship management and customer satisfaction. This also indicates that the two variables are not co-dependent, thus signifying that customer relationship management does not impact customer satisfaction in the telecommunications industry.

When discussing customer relationship management with customer satisfaction, one may also pay close attention to the critical themes used in the modern world to engrave customer relationship management in the telecommunication sector. The management of the telecommunication industry should pay close attention to customer advocacy. This means that customer relationship management is the voice of the customer in advocating the strategies of customer relationship management. The organization should keep in touch with its customers during organizational improvisation and process updates. The theme of customer relationship management not only involves sales but also depends on the company's networking and its performance level in the market. The company should also structure the organization to be customer-centric. This also involves automating the organization's confidential data to understand the relevance of workflow, reduce efficiency costs efficiently, enhance usability, use data analytics, and report (Watt, 2019).

More such research has been conducted to understand the impact of factors that affect the satisfaction of customers in the field of e-commerce.

Researchers aim to identify factors such as the website, product quality, price, and safety in shopping. Thus, researchers are directed to understand the satisfaction of e-commerce and

factors that significantly influence customer satisfaction in e-commerce shopping. Researchers use purposive sampling and linear regression methods to understand customer satisfaction's influence on e-commerce. The research integrated 184 respondents who were distributed an online questionnaire through platforms on social media. The research results show that the website and product quality, product price, and safety in shopping influence customer satisfaction. The product quality was significant in increasing satisfaction in customers. The product quality in the research measured at 38%, which was more than other variables that were independent in the research (Tzeng et al., 2020; Mazikana, 2023).

Moreover, many researchers measure performance of the organization through the system of customer relationship management with the help of quantitative evidence taken from organizations in the telecommunications industry, operational in Jordan. The results show the dimensions in the management, for instance, system and information quality, system, and satisfaction of the user, greatly affects the performance of the company in the telecommunication industries, operational in Jordan. Also, the research model provides a practical lessons to researchers, in order to improve the management system of customer relationship in organization performance in industry of telecommunications (Customer Relationship Management Systems and Organizational Performance: Quantitative Evidence from the Jordanian Telecommunication Industry, 2019; Djoni Haryadi Setiabudi et al., 2015; Hassan et al., 2015).

3. CONCLUSION

The industry of telecommunication has been in business for decades, and this sector has witnessed an impossible change in the ideology of attracting customers and understanding their buying behaviour. Customer satisfaction holds sufficient prejudice in the telecommunications industry. This research analyzes the management of customer relationship to enhance the satisfaction of customer in the industry of telecommunication. Most research incorporates qualitative interviews and interview transcripts driven by the ideologies and understanding of experts in the telecommunications industry. These interviews are analyzed through quantitative tools and methods to understand the efficacy of management strategies in customer relationship for the sector of telecommunications. This research uses quantitative approach under an exploratory design to study customer satisfaction impact on the management of customer relationship. Three hundred participants were selected through the technique of simple random

sampling. The data was analyzed through SPSS using the Pearson Correlation coefficient. Independent variable in the research is the management of customer relationship, and the dependent variable is customer satisfaction. Research shows that the value of Pearson correlation is 0.067, indicating correlation between customer satisfaction and customer relationship management is negligible or has no correlation. The p-value of the correlation is 0.245, which suggests that there is only a 24.5% chance that the independent variable, management in customer relationship and the dependent variable, customer satisfaction, depend on each other. The results of the correlation are statistically insignificant.

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