

Assessing the Impact of Communication on Customer Relationship Marketing: A Case Study of Mobile Telecom Companies

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Abstract: - The long-term relationship between customers and companies is essential for desired business growth. Most cellular industries rely on different forms of communication and marketing to achieve desired levels of relationships with their customers. This study focused on establishing the general effect of communication on customer relationship marketing in different businesses or organizations. The mobile telecom industry of Greece was used as the case study. A cross-sectional survey design based on a quantitative methodology was used in the study. A well-designed questionnaire was utilized to collect quantitative data from 204 customers of different mobile telecom companies based in Kozani, Greece. Results showed that communication techniques improve the strength of relationships between customers and the business, improving business profitability. The results also showed that the approach of communication in a company plays a very important role in influencing the satisfaction levels of customers which in the long run enhances relationship marketing. The findings confirmed that customer relationships through communication and marketing are essential for the growth of the business through improved performance and profitability. Therefore, companies or companies need to employ the best communication techniques to achieve the desired relationship marketing and sustainable long-term relationships.

Key-Words: - Communication efforts, Communication techniques, Customer relationship marketing, Business Growth, Marketing.

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1 Introduction

Relationship marketing is associated with building and maintaining desirable long-term relationships between the customer and the organization or business. Clients or customers are essential in the growth of a business; hence maintaining cordial relationships with them is beneficial to the company, [1], [2]. In the current modern world with stiff competition in different industries, customer relationship marketing is essential for achieving

higher profitability. Regular engagements or interactions with the various stakeholders are an important practice that helps enhance relationships among stakeholders and customer relationship marketing in the long run, [3], [4]. Effective organizational interactions are only possible through robust communication systems; hence the latter is a crucial prerequisite for effective customer relationships.

According to, [2], [4], successfully engaging with customers has many advantages, including improved client relationships, enough time and financial resources, effective decision-making, and good problem-solving. Effective communication means that the information is received as expected by the sender in terms of content and context. The study, [5], indicates that effective marketing communication approaches help develop and sustain desirable consumer relationships that drive the company's brand value.

Communication is thought to significantly impact the development of long-term partnerships with an organization's stakeholders. As a result, it's critical to recognize the importance of communication in forging connections between the organization's different operations and between the organization and its stakeholders, [6], [7]. The empathy, conversation, friendship, and contact that the marketer creates with prospective customers influences an organization's profitability and improved relationship marketing, [8].

Since the inception of the different cellular networks in Greece, the cellular industry has developed into a multi-billion-pound industry. Few could have expected the industry's rise to such heights or the enormous potential that remains. Greece's inspiration for adopting cellular technology is unique, [9]. Most people in Greece purchase phones to stay connected with their service providers, run personal businesses, or merge with prospective clients.

A company's main objective in utilizing better communication is to maintain superior performance to maintain consistent development. It's no different in the cellular industry. The consistency of a company's customer relationships is often one way to ensure superior results and distinguish it from its rivals, [10]. Studies reveal that a strategy that focuses on improving the quality and value of services through effective communication with customers is an essential strategy for improved relationship marketing.

1.1 Corporate Social Responsibility (CSR)

The brand aids in creating a positive perception of the business, allowing for the efficient management of customer interactions, which is essential to the growth and survival of the enterprise. A company's reputation reflects the activities it engages in. As a result of the firm's activities, brand development occurs as people form an opinion of the company. The concerns of contemporary customers go well beyond those of price and product quality. For instance, they desire to use their activities to help

the preservation and strengthening of the environment and the society in which they live. Companies now understand the critical role that Corporate Social Responsibility (CSR) plays in their ability to operate and provide goods and services that are both affordable and of high quality, [11], [12], [13].

Corporate social responsibility (CSR) is increasingly seen as a major remedy to societal issues by businesses and governments, [14]. The importance of corporate social responsibility and company contributions to society cannot be overstated. CSR, on the other hand, is critical not just for addressing global challenges but also for increasing company success. Companies have long acknowledged CSR as the most important standard business practice that must be implemented if a company is to prosper in a turbulent and competitive economic climate. According to, [15], corporate social responsibility (CSR) might be an effective advertising approach for increasing business image and consumer behavior. Furthermore, the advantages of CSR go beyond sales. Consumer and stakeholder expectations are greatly influenced by CSR activities, which leads to improved corporate performance, [13], [16], [17].

Companies interact with customers online to get input for new product development and to create and sustain trusting relationships, [18], [19]. Business-supported and consumer-assisted new product development co-creation activities enable a firm to get creative and relevant new product knowledge and ideas while improving its overall firm image, [20], [21].

1.2 Theories in Consumer Behavior Research

The theory of planned behavior (TPB) is a consumer behavior theory that has been employed in research since 1991, [22], [23], [24]. However, the theory has been challenged for failing to account for critical factors like the effect of emotions and unconscious influences on customer behavior, [25], [26], [27], [28].

Continuing, the study, [27], argues that stress factors and consumer confidence impact attitude to increase model predictive power (TPB) in a pandemic crisis. The study, [29], links social contact to social anxiety, which is a negative emotional response to the presence of stressful social settings, [30], [31]. When people are anxious, their attention is drawn to insignificant information, their processing speed slows, and their reaction to recognized signs and symbols slows, [32], [33].

The recent global COVID-19 pandemic, which theoretically began in the Spring of 2020, [34], but began at the end of 2019, disrupted citizens' daily lives, negatively impacting the global economy and creating conditions for an increase in grief, anxiety, or even depression, [35], [36], [37], [38].

When clients experience social anxiety, their attention is drawn to irrelevant information, and their cognitive speed slows, [3], [29], [33], [39]. The social media revolution has significantly altered corporate marketing strategy and procedures, [40].

Anxiety over online social interactions

Online social anxiety, in turn, has a negative impact on virtual social circumstances and is an excellent predictor of a customer's readiness to respond to a certain stimulus, [41]. It is clear that perceived information has a large impact on customer trust, [42], [43], [44], and that trust has a considerable impact on purchase intention, [27], [45].

A business's performance is measured.

A company's success should be measured in terms of financial and business performance, as well as organizational efficiency, [46], [47]. The introduction of new goods, an improvement in the quality of products and services given, the efficacy of marketing, and attempts to raise the added value of both products and services are all examples of organizational effectiveness, [48]. As a result, the criteria for accurate performance evaluation include both financial and non-financial. Sales, return on investment, and net profit percentage are examples of financial criteria. Non-financial relates to consumer happiness for the goods and services offered, as well as staff satisfaction, marketing efficacy, corporate responsibility, and culture, [49], [50], [51], [52], [53].

1.3 Theories in Consumer Behavior Research

Although studies on the different aspects of relationship marketing have been performed, there is still limited research on how communication mechanisms or efforts can facilitate relationship marketing in the cellular or mobile telecom industry, [8]. This study aims to see whether cellular providers' contact efforts result in a rewarding long-term partnership with their customers. The secondary issues concern whether cellular companies' contact efforts result in long-term customer satisfaction. There are also questions about whether the companies' communication tools successfully facilitate relationship marketing, whether current consumers can become brand

supporters, and how service providers treat customer complaints.

1.4 Purpose of the Study

The study's major aim was to assess the general effect of communication on relationship marketing using mobile telecom companies in Kozani, Greece.

The study was also based on the different specific objectives that include;

- To establish the effect of communication efforts on relationship marketing;
- To explore the impact of communication tools on relationship marketing.
- To establish factors that influence customers' choice of mobile telecom service provider.

The findings of this study will greatly contribute to the available literature concerning the role played by communication in enhancing relationship marketing. The final findings can also act as a reference for future researchers conducting studies in the same field of communication and relationship marketing. Practically, the findings will be utilized by different mobile or cellular companies on the importance of enhancing communication efforts or techniques to achieve sustainable customer relationships.

1.5 Research Questions

- What are the effects of communication efforts on relationship marketing?
- What are the effects of communication tools on relationship marketing?
- What factors influence customers' choice of the mobile telecom service provider?

1.6 Research Hypothesis

HO₁: There is no significant relationship between communication efforts and relationship marketing.

HO₂: There is no significant relationship between the effectiveness of communication tools and relationship marketing.

2 Literature Review

2.1 Overview of Relationship Marketing

The study, [1], indicates that different forms of relationships have been at the center of marketing in various forms since the inception of commerce or business. However, relationship marketing as a systematic approach to marketing is a relatively new phenomenon in most businesses, [10]. The move away from sales and toward relationships has had a significant impact on marketing today, as

relationship marketing offers a highly desirable and holistic approach to understanding marketing dynamics and how to utilize marketing strategies deeply. It also emphasizes promoting cooperative and strategic alliances to create more value for consumers and organizations, [1], [54].

According to, [55], relationship marketing originated in the late 1970s and early 1980s as a different or unique approach to brand understanding than the mix management model that had dominated for the previous 30 years. Relationship marketing grew in lockstep with utilities and industrial marketing in the early years, [56]. Relationship marketing nowadays aims to establish a chain of relationships within a company to provide the service consumers want and between the organization and its key stakeholders, [57].

Because of the peculiar characteristics of services, such as their inseparability, intangibility, heterogeneity, and perishability, the different service marketers needed to develop a new strategy. The prevalent mix management model has been chastised for providing no guidelines, terminology, or operating rules for services, [56]. Initially, service marketers tried to improve the existing model by incorporating new individuals, procedures, and physical proof. Relationship marketing is increasingly being extended to any marketing situation in which relationships are considered significant, [58].

2.2 Factors Influencing Relationship Marketing

According to, [55], [59], relationship marketing is primarily concerned with acquiring, maintaining, and ultimately strengthening client connections in an organization. Most academics define relationship marketing as a strategic process in which consumers and service providers develop a highly effective, productive, and ethical connection that is required for both sides to be successful.

According to, [60], relationship marketing strives to establish long-term and gratifying ties with key business stakeholders such as customers, suppliers, and distributors to win and retain their long-term preferences and business. According to, [9], the most advanced definition of relationship marketing is to define, build, maintain, strengthen, and cease connections with consumers and other stakeholders while paying a price to fulfill the goals of all parties. Reciprocal commerce and keeping promises assist in accomplishing this.

Relationship marketing is influenced by contributions from many relational schools. Relationship marketing, according to, [8], includes

the aim, approach, focus, and important features of relationship marketing. Relationship marketing is focused on meeting the objectives and improving the experience of the people involved, and it involves the identification, definition, commencement, maintenance, and dissolution of relationships, [10].

Furthermore, one of the most significant aspects of relationship marketing is classifying the most successful consumers to focus on customers who are a good fit for the company's plan. According to, [1], the goal is to build connections with clients to keep them rather than focus on acquiring new ones.

2.3 Benefits of Relationship Marketing

According to, [9], the advantages accrue to the company due to engaging in a variety of relationships. According to, [5], relationship marketing helps to strengthen supplier relationships, minimize costs by more effective ordering processes, and accommodate new product introductions through relationships with distributors.

According to, [61], partnership marketing is associated with different benefits for service providers. Marketing costs are reduced because direct mail could be involved as a means of communication between the customer and service provider, follow-up, and other consumer recruitment efforts are normally reduced; and marketing may target unique customer needs; hence there is a higher return on investment (ROI), [61]. Furthermore, relationship marketing improves customer loyalty by providing pricing and product service services that suit existing customer needs and increasing profitability through improved revenue, customer referrals, and customer retention over time, [5], [59].

Relationship marketing strengthens the parties' economic, technological, and social ties while reducing transaction costs and time. Relationship marketing aims to create a one-of-a-kind company asset known as a marketing network, [62]. A marketing network comprises a company's supporting stakeholders with whom it has developed mutually beneficial business relationships. The study, [8], identifies several service provider organizational characteristics that may aid in the development of long-term customer relationships:

- A customer-service-oriented organizational culture.
- Employees with strong interpersonal communication abilities have a significant impact on how service providers communicate with consumers.

- Learning to measure relationship efficiency and evaluate the effect of marketing campaigns on customer satisfaction, confidence, engagement, and loyalty.

As implied by the concepts mentioned above, relationship marketing entails practices aimed at building long-term, cost-effective connections between an entity and its customers for mutual benefit, [63], [64].

Customers should be treated fairly, and quality improvements may assist organizations in maintaining and improving connections. In the long term, a useful collaboration for the service provider is financially successful. Customers, according to, [62], define a valued partner as one whose benefits from service delivery greatly surpass the expenses of supplying them.

Customer loyalty refers to a consumer's commitment to purchasing products and services from a certain service provider as well as their readiness to stand up to competitors vying for their business. The study, [57], defines loyalty as a biased behavioral response displayed over time by customers toward one provider out of a group of suppliers, resulting in brand or store commitment, [65], [66].

The study, [61], took a two-pronged approach to consumer loyalty: attitudinal and behavioral. Loyalty is a state of mind, according to the attitudinal concept. Customers who have an optimistic, preferential attitude toward a brand or business are loyal to it and do not purchase from its rivals because they are attracted to the company's brands. In the behavioral definition, brand preference influences loyalty. If a company wants to improve customer loyalty, it will concentrate on strategies that increase repurchase behavior, [1].

Loyalty must be described as a biased pattern of repeat purchases or patronage followed by a positive attitude, [57]. After receiving a customer's order, several businesses focus on finding new customers. They don't realize how important it is to retain and improve relationships with current customers, putting very little focus on creating repeat sales. The goal of relationship marketing is to convert new customers into repeat customers and, over time, to transform them into strong supporters of the organization. According to the statistics, the three service providers in Greece have done an excellent job of establishing, improving, and sustaining relationships with their customers, [65].

Increasing customer loyalty requires providing current consumers with additional justifications for continuing their allegiance to the brand. According to, [55], the majority of loyalty experts feel that

customer loyalty is related to a client's state of mind, which can be thought of as a collection of behaviors, beliefs, and wants. They assert that client loyalty may be broken down into a number of distinct tiers, each of which is unique to the individual consumer. As a consequence of this, interventions that target the attitudes of consumers are used to cultivate loyalty. It is not the purpose of this strategy to make all consumers loyal; rather, the objective is to improve the loyalty of those customers who are most inclined to respond.

According to, [5], confidence is the foundation of relationships and the glue that binds them together. It is unlikely that a relationship can be started unless there is a minimum degree of confidence between the parties. When faith is broken, the association is likely to end. Customers ought to have enough confidence in their service providers and be optimistic that the latter will offer the most desirable services or products. The study, [56], indicated that the ability of a service provider to meet the demands of the customer helps build trust between the two parties. Trust is especially crucial in the case of services, which are by their very nature intangible. A customer's loyalty towards service is largely influenced by previous interactions with a service provider, [10], [67].

The concept of commitment is linked to that of trust. This means that all parties in the relationship will be trustworthy, dependable, and stable. According to, [56], loyalty is the conviction that a partnership with another is so important that it warrants putting in the most effort possible to sustain it. Commitment, like trust, is regarded as critical in the development of customer relationships. "The existence of relationship engagement and relationship confidence is fundamental to effective relationship marketing, [58]. Commitment and confidence contribute to cooperative conduct, which is essential for relationship marketing success, [68].

3 Methodology

3.1 Research Design, Data Collection

The study employed a cross-sectional survey design based on a quantitative research methodology, which helped collect data in a very short time. A cross-sectional survey design based on quantitative research helps to make statistical inferences using the collected data and consequently establish statistical relationships between study variables.

A sample of 204 persons was surveyed to gather data. The study was carried out between August 25

and September 10, 2022. The survey questionnaire was useful in determining what mobile phone users thought of the significance of relationship marketing communication initiatives and technologies. Simple random sampling is a kind of probability sampling in which a sample is randomly selected from a specific demographic using a Google form, with a maximum participation limit of 204. The probability of getting selected is the same for everyone in the population. The research participants' responses to a self-administered survey questionnaire were utilized to gather data.

The primary sample for the research was composed of 204 citizens of the Greek city of Kozani. As of the latest Census in 2021, [69], 67,161 people were living in the Kozani municipality unit. The sample size was determined after assessing the survey's accuracy ($\epsilon = 16.79$) and reliability ($P = 99.7\%$). Using a preliminary sample (or pilot sample) of 50 people, the monthly pay variation for mobile communication—for work and business but also home and entertainment—was computed. The outcomes were $s = 40.00$ and $s^2 = 1599.93$. When using the sample size calculation, a value of $z = 3$ is often used, which translates to a level of dependability of $P = 99.7\%$. The value of z is determined by the needed degree of dependability (P). Equation (1) calculates that the minimal sample size should be 203.75, or 204 people, using our values of $N = 67,161$ (population of respondents), $s = 40.00$ (standard deviation of the sample), $z = 3$ (value which equates to a level of dependability $P = 99.7\%$), and $d = 8.39$ (the needed precision d was arbitrarily selected and represents half the confidence interval), [7], [70], [71].

$$n = \frac{N(zs)^2}{Nd^2 + (zs)^2} \quad (1)$$

whereby:

n is the minimum sample of respondents;

d is the needed precision;

N is the total population;

s is the population proportion;

z is the critical value.

Calculation of the minimum sample of respondents is given below:

$$n = \frac{67,161(3 * 40.00)^2}{67,161 * 8.39^2 + (3 * 40.00)^2} \Leftrightarrow n = 203.75$$

A purposive sampling technique was used to select the representative sample for the study.

3.2 Data Analysis

Data was sorted and imported into SPSS version 23 for analysis after being obtained from the various research participants using questionnaires. Bivariate and univariate analyses of the data were conducted at two separate levels. Single variables were analyzed using univariate analysis, and interpretation was based on the calculated frequencies and percentages. The correlation between the variables in the research was established using bivariate analysis. Using the following formula, Chi-square was employed to evaluate assumptions about the distribution of data in various categories using Equation (2).

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i} \quad (2)$$

Where $\chi^2 = \text{chi squared}$

$O_i = \text{observed value}$

$E_i = \text{expected value}$

$$\chi^2 = \frac{\sum[\text{Sum of (Observed - Expected)}]^2}{\text{Expected}}$$

The results of the chi-square analysis were interpreted using the obtained chi-square values and P-values, which served as the basis for rejecting or accepting the null hypothesis at the 0.05 critical value. Based on the decision criteria that the null hypothesis is accepted if $p < 0.05$ and rejected if $P > 0.05$, the null hypotheses were accepted or rejected. The 5% (0.05) level of significance was used to examine the different study hypotheses.

Moreover, regression analysis was carried out to investigate the degree to which relationship marketing may be predicted by communication efforts and technologies. To determine the many different projected values, this scenario makes use of multiple regression.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon \dots \dots \dots 1$$

Where: $Y = \text{Relationship marketing}$

$\beta_0 = \text{constant (coefficient of intercept);}$

$$X_1 = n = \frac{N(zs)^2}{Nd^2 + (zs)^2} \text{ Communication}$$

efforts

$$X_2 = \text{Communication tools}$$

ε = Represents the error term in the multiple regression model

The hypothesis of the study was tested at a 5% (0.05) level of significance.

4 Results

This section explains the various findings from the analysis of data gathered from customers of several cellular networks in Greece.

4.1 Demographic Characteristics

Table 1. Showing participants' demographic information.

Characteristic	Frequency	Percentage (%)
Gender		
Male	126	61.8
Female	78	38.2
Age		
18-25 years	28	13.7
26-35 years	94	46.1
36 -45 years	46	22.5
46-55 years	19	9.3
Above 55 years	17	8.4
Nationality		
Greek	171	83.8
Albanian	17	8.3
Russian	8	3.9
Serbian	5	2.5
Other	3	1.5
Years of using the cellular network		
0-4	54	26.5
5-8	90	44.1
9-12	49	24.0
More than 12	11	5.4
Service provider		
Cosmote	92	45.1
Wind Hellas	39	19.1
Vodafone Greece	73	35.8
Total	204	100

From Table 1, the majority of the participants (61.8%) were male, and 38.2% were female. Concerning the age of respondents, the majority (46.1%) were in the age bracket of 26-35 years,

followed by 26% in the age bracket of 36-45 years, and only 8.4% of respondents were above 55 years. Furthermore, the largest percentage of respondents (83.8%) were Greek followed by 8.3% who were Albanian, then 3.9% were Russian, then 2.5% were Serbian, and 1.5% were of other races. It is important to note that the Greeks occupy nearly the whole of Greece; hence different nationalities contribute a very small portion of the total population of Greece. Concerning years of using the cellular network, most of the participants (44.1%) had used the network for 5 - 8 years, 26.5% had used the network for 0-4 years, and only 5.4% had used the network for 12 years and above. Finally, most of the participants (45.1%) were using Cosmote as the service provider, 35.8 were subscribers of Vodafone Greece, and 19.1% were subscribers of Wind Hellas.

4.2 Descriptive Analysis

Factors causing dissatisfaction among customers.

Respondents were requested to indicate the factors that cause dissatisfaction with mobile telecom services, and their responses are presented in Figure 1.

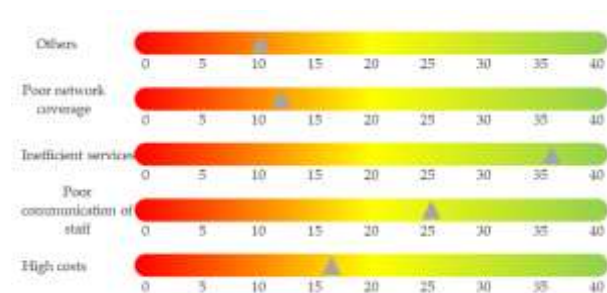


Fig. 1: Factors causing dissatisfaction.

From Figure 1, the majority of the participants (36.0%) identified inefficient services as the major cause of dissatisfaction with different mobile telecom service providers, 25.3% identified poor communication of staff, 16.5% selected high costs, and 12.0% were for poor network coverage. In comparison, a few respondents (10.2%) identified other factors causing customers' dissatisfaction, such as unreliable internet coverage across a wide range of areas. These results clearly show that limited mobile services and poor communication are the root causes of dissatisfaction among mobile service customers. Such factors may also affect the loyalty of a customer towards a particular mobile service provider.

Respondents were also required to indicate their level of agreement concerning whether communication efforts have an influence on the

long-term satisfaction of customers, and findings are presented in Figure 2.



Fig. 2: Showing whether communication efforts influence the long-term satisfaction of customers.

From Figure 2, the majority of the respondents (44.6%) agreed that communication efforts influence the long-term satisfaction of customers, followed by 42.3% who strongly agreed and only 2.4% strongly disagreed. This is a clear indication that the different efforts invested by communication and telecom companies have a great positive impact on the general satisfaction of customers or subscribers.

Effectiveness of communication tools in influencing relationship marketing.

Respondents were also requested to indicate the effectiveness of communication tools in enhancing or promoting relationship marketing, and the results are presented in Figure 3.

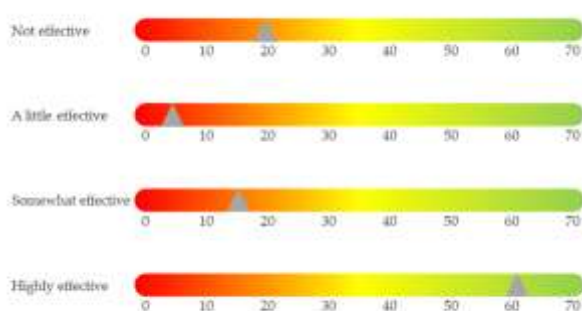


Fig. 3: Showing the effectiveness of communication tools in influencing relationship marketing.

From Figure 3, more than half of the respondents (60.8%) indicated that communication tools are highly effective in influencing relationship marketing, 15.2% indicated that the communication tool is somewhat effective, 4.4% showed that the tools are a little effective, and only 19.6% of told that the communication tools are not effective. These results confirm the rationale of communication tools in improving relationship

marketing in companies. This, therefore, indicates that the effectiveness of devices such as social media-based communication, communication via websites, and other communication tools helps to enhance relationship marketing.

4.3 Chi-squares Analyse

Chi-square analysis helped in finding out the relationship between the dependent and independent variables, and the results are presented in the subsequent Table 2 and Table 3.

Table 2. Cross-tabulation between communication efforts and relationship marketing

Relationship marketing	Communication efforts					Total
	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	
Attractive	73	53	3	15	4	148
Not Attractive	13	38	3	1	1	56
Total	86	91	6	16	5	204
$\chi^2= 11.1632$		df= 3		p = 0.023		
$\alpha=0.05$						

Since the computed $\chi_c^2 = 11.1632$ is greater than

the tabulated $\chi^2=3.841$ and $p=0.023<0.05$, we reject the null hypothesis and conclude a significant relationship between communication efforts and relationship marketing.

Table 3. Cross-tabulation between the effectiveness of communication tools and relationship marketing

Relationship marketing	Effectiveness of communication tools				Total	
	Highly effective	Somewhat effective	A little effective	Not effective		
Attractive	87	14	4	27	132	
Not Attractive	37	17	5	13	72	
Total	124	31	9	40	204	
$\chi^2= 9.468$		df= 3		p = 0.013		$\alpha=0.05$

Since the computed $\chi_c^2 = 9.468$ is greater than the

tabulated $\chi^2=3.841$ and $p=0.013<0.05$, we reject the null hypothesis and conclude that there is a significant relationship between the effectiveness of communication tools and relationship marketing.

4.4 Diagnostic Tests

Test for Heteroscedasticity

The heteroscedasticity test is useful for determining if the error components in cross-sectional data were correlated across observations. Provided that the p-value is greater than 5%, the null hypothesis states that heteroscedasticity does not exist in the data. Owing to the reported result of $0.6503>0.05$, the null hypothesis was not excluded at the threshold p-value of 0.05. As a consequence, the data did not

exhibit heteroscedasticity. Table 4 shows that the null hypothesis of constant variance is not rejected, as shown by a p-value of 0.6503.

Table 4. Breusch-Pagan test for heteroscedasticity

Ho: Constant variance	
Variable: fitted values of relationship marketing	
chi ² (1)=	0.5326
Prob > chi ² =	0.6503

Predictors: (Constant), Communication efforts, Communication tools.

Test for Autocorrelation

The dependent variable must be independent, and this was tested using the Durbin-Watson (d) test which states that d=2 indicates that there is no autocorrelation. The value of (d) always lies between 0 and 4 where 0 shows that there is autocorrelation while above 1 indicates the residuals are interdependent, the results from the study presented 3.051 which indicates that the residuals are not autocorrelated as presented in Table 5.

Table 5. Durbin Watson test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	0.893	0.708	0.692	0.196	3.051

Predictors: (Constant), Communication efforts, Communication tools

4.5 Regression Test

Fitness of Model

All of the independent variables as well as the dependent variable were subjected to a basic regression analysis (relationship marketing). The findings reported in Table 6 show the fitness of the regression model employed to describe the study phenomena. The independent factors (communications efforts as well as communication tools) explained relationship marketing well. As shown in Table 6, the coefficient of determination, often known as the R-square, is 0.708. This suggests that communications and technologies account for 70.8% of the variance in the dependent variable, relationship marketing.

Table 6. Model Fitness

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.893	0.708	0.692	0.196

Predictors: (Constant), Communication efforts, Communication tools

Regression Coefficients

The results in Table 7 represent the coefficients of regression for the independent variables.

Table 7. Coefficients of regression

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0.420	0.256		12.073	0.044
Communication efforts	0.161	0.062	0.108	4.661	0.026
Communication tools	0.259	0.194	0.372	7.412	0.018

Dependent Variable: Relationship marketing

The regression coefficients in Table 7 show the level to which communication efforts and communication tools, predict relationship marketing. Regression coefficients revealed that there was a positive and significant relationship between communication and relationship marketing.

The hypotheses were tested and assessed as below:

HO1: There is no significant relationship between communication efforts and relationship marketing.

The p-value for communication efforts was 0.026 and therefore hypothesis H1 was accepted since the value <0.05. The study therefore found that communication efforts have a positive effect on relationship marketing.

HO2: There is no significant relationship between the effectiveness of communication tools and relationship marketing.

The p-value of communication tools was 0.018 and therefore hypothesis H2 was accepted since the p-value < 0.05. The study therefore confirmed that there is a significant relationship between the effectiveness of communication tools and relationship marketing.

5 Discussion

Most mobile phone users were pleased with their service provider's communication efforts. The findings confirmed that communication efforts and a significant relationship with relationship marketing also applied to communication tools. The literature review findings were similar, emphasizing, [55], the concept of satisfaction as a person's feelings of pleasure or dissatisfaction due to comparing a product's perceived output to their expectations. As a result, customer dissatisfaction emerges where performance falls short of expectations. Many businesses strive for high customer satisfaction because it fosters an emotional connection with the

brand and increases customer loyalty, [72]. Delivering high customer satisfaction is the secret to achieving high customer loyalty. The study's findings indicate that the service providers' communication methods were successful in supporting relationship marketing. SMS was the most common mode of communication, followed by mail, e-mail, and face-to-face conversation, [8], [55]. This is apparent because the vast majority of respondents were pleased with their service provider of choice.

This study supports and adds to the findings of other studies showing relationship strategies affect consumers' loyalty to mobile phone service providers. This research also confirms that relationship marketing strategies for the service sector that focus on service quality, pricing perception, value offerings, and brand image have a favorable effect on customer loyalty, as explored and concluded by, [73]. One of a company's most valuable assets is its capacity to attract and keep a large base of devoted consumers. This is crucial because it helps commercial organizations make long-term profits from their loyal clients. So, telecom marketers need to control the four strategies included in this research to encourage both new and current consumers to boost their purchases to support a company's financial development, [56].

More than just creating a quality product, setting an appealing price, and making it easily accessible to the target market is all part of marketing. Organizations must interact with their clients, both existing and future. They must perform the duties of a promoter and a communicator. Communication is thus essential to the marketing process, [5], [10]. An essential component of marketing and developing relationships is the communication between consumers and salespeople as well as the information sharing between buyers and sellers. Complex marketing communications systems must be established, maintained, and managed by organizations with their consumers, distributors, suppliers, and many other publics, [56]. Each group interacts with the organization and gives input to the others as well. So, the question of communication for the majority of businesses is not whether to communicate but rather what to say, to whom, how, when, and where, [74].

According to the study, sustaining the customer ties that support brand value is a crucial part of relationship marketing communication. To put it more precisely, it is a cross-functional process for creating and sustaining profitable relationships with customers and other stakeholders by strategically influencing all communications sent to these groups

and encouraging data-driven, meaningful interactions with them. According to, [75], employing just mass approaches like advertising, sponsorship, and publicity makes it hard for a marketer to develop successful contact with the target clients. The traits that set the marketer apart from the competition are the rapport, empathy, discourse, connection, and communication that they develop with the prospect. The development of customer satisfaction based on marketing communication might occur directly via personal experience or less directly through other people's opinions and experiences. The perceived quality of the service and the length of the connection are both factors in satisfaction. As a result, excellent service must be offered throughout the delivery process. Over time, satisfaction strengthens the organization's perceived dependability and influences customers' choice for different telecom services, [75].

The majority of mobile phone consumers expressed satisfaction with their service provider's communication efforts. Most respondents said that their service provider's marketing materials were eye-catching and that they interacted with them often. The results of the literature review were consistent with those of the study, emphasizing, [76], the definition of satisfaction as a person's emotions of pleasure or disappointment as a result of evaluating a product's perceived performance in relation to customer's expectations. Customer discontent results from perceived performance falling short of expectations, while customer satisfaction results from performance exceeding expectations, according to the relationship between satisfaction and perceived performance and expectations. As this fosters an emotional connection with the brand and fosters strong consumer loyalty, many businesses strive for great customer satisfaction. Providing great customer value is the key to fostering strong customer loyalty. The overall role that customer satisfaction plays in the development of relationships is straightforward, as a disgruntled client would often look for another service provider.

Moving from market share to customer share is relationship marketing. The transaction should be seen as the start of a long-term partnership. Despite the fact that this study's findings show that service providers' communication efforts lead to pleased clients, they should still work to fortify ties by turning disinterested clients into ardent supporters of the business via effective communication, [1]. The individual demands of clients must be better understood by service providers. They may do this

by doing in-depth marketing research. As a result, they will be able to customize their solutions to meet the diverse demands of their clients, [74]. Service providers must keep their word about delivery dates and give fast assistance to clients. Starting from the beginning of the relationship is necessary for this. They must have a proactive relationship marketing strategy. This will assist them in better understanding their clients and develop and boost their brand image, [73]. To establish sustainable long-term partnerships, service providers must modify their systems and operational processes to assure improvements in both the amount of client privacy and the degree of consumer trust.

6 Conclusion

The study confirms the impact of Communication on Customer Relationship Marketing in telecom companies. The purchase of a telecom service is considered the start of a long-term relationship with a telecom service provider. Whereas the study findings confirm that service providers' communication efforts influence customer satisfaction, companies should also aim to strengthen relationships by converting indifferent customers into loyal advocates of the business through appropriate communication. Service providers must better understand customers' basic requirements. They will do so by conducting extensive market research, enabling them to tailor their services to the specific needs of their customers.

Customers need to consider where their service provider is going in the future. Customers must be kept informed or aware of the different long and medium-term plans, new technologies, and any major changes. Service providers must always be prepared to assess their results with key customers and consequently discuss strategies for enhancing performance, in addition to evaluating customer satisfaction. Service providers can show high standards of customer care by adopting this constructive approach to performance assessment.

Service providers must stick to their commitments in terms of timeliness and be prompt in assisting their customers, and this should begin at the start of the relationship. They must build a strategic partnership marketing strategy, and this will aid in developing a deeper understanding of their customers and the improvement and enhancement of their image. To ensure sustained long-term relationships, service providers must amend their processes and operating procedures to

ensure changes in both the level of customer privacy and the degree of customer confidence.

6.1 Benefits of Relationship Marketing

Telecommunications companies are among the businesses that led in Customer Relationship Marketing, because of the services they offer, but also the communication medium they serve. Nevertheless, they are also among the first companies to use artificial intelligence in customer relationship marketing, both at the voice level and at the written level (e-mail, SMS, etc.). In the future, our research team intends to investigate through extensive surveys the customer satisfaction of telecommunications companies from the use of artificial intelligence in the context of customer relationship marketing they implement. Based on empirical observations and the need to improve customer relationship marketing by telecommunications companies, it is estimated that they should use artificial intelligence in the Customer Relationship Marketing context sparingly and solely based on data that reflects their customer opinions.

Customer relationship marketing presupposes, according to the results of this study, if not 'personalized' communication and business-customer relationship, at least communication based on specific services that will meet the wishes, solve problems, and inform the customers.

On this basis, telecommunications companies it is necessary:

- They are staffing with personnel who will be employed exclusively in customer relationship marketing, without outsourcing these services to external subcontractors (outsourcing, call centers, etc.).
- They are training the staff in customer relationship marketing techniques and conjunction with relevant artificial intelligence services, create 'relationships' of trust between customers and the provider they represent.
- To be adopting, loyal customer reward practices to reward customer consistency and build further relationships of loyalty and trust.
- Classic selected approaches with customers, such as greeting cards in hard-copy not in electronic form, etc., although they create additional costs, should be studied whether they should be adopted as they create additional emotional relationships of the customer with the business.
- Information and communication should not be associated with long waits for the customer

either on telephone lines and call centers or answering e-mails, but with immediate response.

- Evaluation of customer relationship marketing services should be carried out in a direct and meaningful way and not by the use of SMS or the use of short questionnaires but conducted through focus groups and in-depth interviews with selected customer informants.

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Conflict of Interest

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