

# The Effect of Electronic Customer Relationship Management (eCRM) on Customer Satisfaction

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## ABSTRACT

The development of technology in this digital era cannot be avoided in people's lives, including in Indonesia, because internet-based technology is a solution and can simplify every activity carried out. The internet will make it easier for people to connect with each other and provide internet-based services. Thus, companies must consider building customer relationships. The purpose of this study was to analyze the effect of eCRM on customer satisfaction. This research was conducted with a survey sampling method. The population of the research was MyTelkomsel users with a minimum age of 17 years. Samples that have been collected were 100 respondents by purposive sampling. The results of the validity and reliability test supported continue this research. The data collection was analyzed using simple regression techniques using SPSS version 25. The results showed that the eCRM variable had a positive effect on customer satisfaction. This finding implies that it is important for companies to improve and further develop mobile application systems to provide more satisfaction to customers. They also need to prioritize developing mobile application systems so that companies can reach consumers better and more easily..

**Keywords:** *Electronic Customer Relationship Management, Customer Satisfaction, Internet-Based Technology.*

## 1. INTRODUCTION

The development of technology in the world is growing rapidly. In this digital era, it cannot be avoided in people's lives because internet-based technology is a solution and can make it easier in every activity carried out. The internet will make it easier for people to connect with each other and internet-based services will provide a drastic reduction in transaction costs between users and providers [1]. This is something that companies must consider in building relationships with customers. Technologies such as social media and customer relationship management (CRM) can facilitate a two-way exchange of information between buyers and sellers and can generate value and assimilate information from the internal and external environment [2]. Maintaining relationships with customers is a key factor in maintaining the competitiveness of the company. Thus, this is the key success factor. Companies can fully communicate and interact with customers to establish good relationships, seek new relationships and manage relationships, meet customer needs, increase customer

satisfaction and customer retention, and build high customer [3]. Internet technology has turned CRM into electronic CRM (eCRM), as companies can use internet technology to capture new customers, track their online preferences and behavior, and customize support and services [4]. Electronic Customer Relationship Management (ECRM) is a comprehensive marketing strategy that integrates technology, people, and processes to attract and retain customers through communication channels such as cell phones and the internet. The electronic relationship between eCRM and customer loyalty causes more satisfied customers, so they repurchase and give a positive word of mouth about these services [5].

As the best cellular provider in Indonesia, PT Telekomunikasi Seluler (Telkomsel) makes efforts to increase customer satisfaction by providing service facilities for customers to maintain good relationships with customers as mentioned in research entitled "Barometer of Mobile Internet Connections in Indonesia" in 2019. Table 1 shows that Telkomsel offers the best overall internet performance, with a value of 35.499

points. It can be identified that Telkomsel has the highest score and ranks 1 as the best provider in Indonesia compared to their competitors. n Perf Barometer of mobile internet connections in indonesia 2020 show by Table 1 as a follow:

**Table 1** Perf Barometer of Mobile Internet Connections in Indonesia 2020

Name of Mobile data connection	Barometer mobile data connection in Indonesia		
	Rank	Score n Pref	Since
3 Tri	3	23,190	2004
IndosatOoredoo	5	19,839	1967
Smartfren	4	23,107	2009
Telkomsel	1	35,499	1995
XL Axiata	2	28,384	1996

As the best operator in Indonesia, Telkomsel tries to provide easy access to services for its 130 million customers through the MyTelkomsel application which can be operated on smartphones and tablets with Android, iOS, BlackBerry, and Windows Phone operating systems. Based on the ratings and reviews of MyTelkomsel users in 2021 through the Playstore, the MyTemkomsel app has a rating of 3.8 while the IndosatOoredoo application has a rating of 4.5. Thus, the service improvement carried out by the company is an effort to create customer satisfaction. Customer satisfaction with services helps develop the behavioral side of the customer in terms of the intention to carry out repeated electronic transactions, and the emotional side in terms of giving positive words of mouth to other people [6]

Customer relationship management as a business strategy is important for companies that are transforming from transaction-oriented into relationship-oriented business strategies and pursuing mutually beneficial relationships with customers [7]. Effective exchange of information between buyers and sellers is critical to the success of the seller. Buyers serve as the primary source of market intelligence for sellers. Furthermore, the means of communication between buyers and sellers through information technology is progressing rapidly [8]. Internet technology has turned CRM into electronic CRM (eCRM), as companies can use internet technology to capture new customers, track their online preferences and behavior, and customize support and services [4]. Electronic customer relationship management is a comprehensive marketing strategy that integrates technology, people, and processes to attract and retain customers through electronic communication channels such as cellular phones and the internet [5]. eCRM is a management strategy that includes marketing with information technology to attract customer satisfaction

[9]. eCRM has become a more interactive communication tool and relationship-making platform with customers [10]. In the last decade, e-commerce is growing rapidly along with the development of mobile devices. Many smartphone devices have sprung up that affect the increase in cell phone use [11].

*A. Information Quality*

Information quality is the degree to which information has the characteristics of content, form, and time, which give it value for certain end-users [12]. According to Jogiyanto, the quality of information includes three things:

1. Accurate, information must be true and free from errors. The information must have accuracy so that the truth is not in doubt.
2. On time, where the information that comes is not late. Late information is considered to be of no value anymore because the information is used to make decisions.
3. Relevant, existing information has useful value in accordance with what is needed by the user.

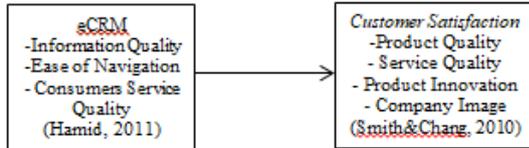
*B. Ease of Navigation*

One of the things that affect user satisfaction is navigation which includes how the site is easy to learn and does not confuse users. Ease of navigation means that a site's functions can help users find what they need without experiencing difficulties, making it easier for users, and quickly assessed [13].

Another thing that needs to be considered by companies to provide the best service is service quality. The service received is in accordance with customer expectations, so the service provided is good. Because service quality can be interpreted as how far the reality and expectations of customers for all services received or got [14].

*C. Customer Satisfaction*

Providing the best service is not easy. Service that can destroy a business is the first bad service to customers, which will result in customer disappointment and subsequently the spread of negative news about the company's services [15]. In the book of marketing ethics, according to [16], by providing good service, customers will feel satisfied. Satisfaction is an assessment of the characteristics or features of a product or service, which provides a level of customer pleasure related to meeting consumer-customer needs. Customer satisfaction can be created through quality, service, and value. Satisfaction is a person's feelings of pleasure or disappointment that arise after comparing perceptions or impressions of the performance or results of a product and their expectations [17]. Figure 1 illustrates the relationship between eCRM to customer satisfaction.



**Figure 1.** Framework

Based on the explanation above, the problems of the research can be identified as follow: Does the eCRM (X) affect customer satisfaction (Y)?

**2. METHODS**

This study was conducted to ensure the reliability and validity of the pre-determined measures. The two analyzes were used to test whether the data obtained were valid and reliable so that they could be used for further research. Hypothesis testing was carried out by using SPSS 25 assisted regression analysis. The collected data were analyzed using a 5-point Likert system rating scale from strongly disagree to strongly agree to obtain interval data and the respondents were given a survey score of 100 respondents.

The primary data used for the study were collected by using a questionnaire distribution. While secondary data was collected from online newspapers, literature, journals, books accessed via the internet, and others. The sample selected as respondents was the MyTelkomsel mobile application users in West Java. The sample collection technique in this study was through non-probability sampling with purposive sampling determination method, namely the sampling technique provided where certain criteria are met. [18] stated that for structural model analysis, it is better if the sample ranges from 100-200 respondents, or to be precise, the minimum number of samples is 5-10 times the number of parameters (indicators). Several considerations were made in determining the respondents, namely:

1. People in the territory of Indonesia aged 17 years and above
2. People’s experience in using the MyTelkomsel application.

**3. RESULTS AND DISCUSSION**

In this study, it is known that the variables in this study are Electronic Customer Relationship Management (eCRM) as the X variable and customer satisfaction as the dependent variable or Y. This study aims to determine whether there is an influence between these variables. The results of the study were based on the calculation of each respondent's answer score, so that from these results the respondents' answer scores were obtained.

Data analysis used linear regression analysis with the help of SPSS 25. Multiple regression is an extension of

the regression technique if there is more than one independent variable to make predictions on the dependent variable [19]. That is to find out how much influence eCRM has on customer satisfaction which can be seen in Table 2 and Table 3.

Based on the results, it is shown in Table 2 that the t-count of the eCRM variable is 2.145 and the t-table value for N = 100 with an error rate of 5% is 1.98. This figure shows that t count > t table, and the significant level is brought to 0.05, which is 0.034. In this case, it can be concluded that there is a significant influence between the eCRM variable and customer satisfaction.

Result of coefficients show by Table 2 as a follow

**Table 2.** Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	2,141	998		2,145	,034
	eCRM	291	021	811	3,747	,000

The influence of the ECRM variable on customer satisfaction can be seen in Table 3. Based on the test results, it is known that the coefficient of determination (R<sup>2</sup>) is 0.659. This shows that the ECRM variable affects customer satisfaction by 65.9% and the remaining 34.1% is influenced by other variables not described in this research model. Model summary show by Table 3.

**Table 3.** Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	,811	.659	.655	1,15026

The Pearson bivariate correlation analysis in Table 4 shows that the Sig. (2-tailed) between eCRM (X) and customer satisfaction (Y) is .000 < 0.05, which means that there is a significant correlation between the eCRM variable and customer satisfaction. Meanwhile, based on the calculated R-value (Pearson Correlations), the relationship between eCRM (X) and customer satisfaction (Y) is 0.811, which is at the limit of the correlation coefficient interval, which is 0.800-1.000. This means that it has a strong relationship level, and there is a relationship or correlation between the eCRM variables with customer statistics variables. The result of correlation show by Table 4.

**Table 4.** Correlation

		ECRM	Customer Satisfaction
ECRM	Pearson Correlation	1	.811**
	Sig. (2-tailed)		.000
	N	100	100
Customer Satisfaction	Pearson Correlation	.811**	1
	Sig. (2-tailed)	.000	
	N	100	100

Based on the results of the research above, it shows that there is a significant effect of eCRM on customer satisfaction of the MyTelkomsel application mobile users. It has similar findings with previous research that customer satisfaction significantly affected eCRM in the context of Saudi Arabia [20]. eCRM has become very important, which enables organizations to offer and cater to each customer for their individual needs, and to promote customer order processing [21]; [22]; Doherty & Lockett, 2007; [23]; [24]. The development of mobile application features includes the convenience of customers to express their opinions and suggestions, convenience, attractive design, security, providing user security guarantees to customers so that they feel comfortable providing their personal information, and the ease of use of the application. When the company applies all the eCRM value factors appropriately, it leads customers to use the website or application consistently, then the eCRM value results in higher ones. In this case, companies need to improve and further develop mobile application systems to provide more satisfaction to customers of the MyTelkomsel mobile application. eCRM has developed in recent years into a key strategy that provides a diverse combination of activities for understanding, predicting, and satisfying customer needs [25]; [23], which make it easier for consumers to access and contact the company if any problems occur. With the satisfaction that consumers have with the MyTelkomsel mobile application, the possibility of consumers to continue using the application is higher.

#### 4. CONCLUSIONS

The findings of this study showed that the eCRM variable had a significant effect on customer satisfaction. The results of hypothesis testing showed that eCRM had a positive effect on customer satisfaction. To increase competitiveness with other telecommunications providers, companies need to improve and strive to further develop the MyTelkomsel mobile application system, such as improving the quality of good information and ease of accessing what consumers need. This is also useful to be able to improve a good relationship between the company and the customer

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