ISSN 1816-6075 (Print), 1818-0523 (Online)
Journal of System and Management Sciences
Vol. 14 (2024) No. 3, pp. 161-176
DOI:10.33168/JSMS.2024.0310

An Exploratory Study on Customer Relationship Management Implementation and Strategies

Wahyu Sardjono, Justin Arden Tanuwijaya

Information System Management Department, BINUS Graduate Program – Master of Information Systems Management, Bina Nusantara University, Jl. K. H. Syahdan No. 9, Kemanggisan, Palmerah, Jakarta 11480, Indonesia

wahyu.s@binus.ac.id, justin.tanuwijaya@binus.ac.id

Abstract. Establishing and maintaining strong customer relationships is essential for business continuity and growth. In this context, many businesses have adopted Customer Relationship Management (CRM) strategies to enhance their sales and customer engagement. However, PT. XYZ, a retail company, has observed a gap between their targeted sales and actual sales performance despite implementing CRM. This study aims to analyze the factors contributing to this gap by applying the Factor Analysis Method to the case of PT. XYZ. Additionally, a suitable regression model is constructed to assess PT. XYZ's CRM performance and propose necessary strategies for the company. The findings reveal five key factors influencing the performance gap: CRM Reliability, Underutilization of CRM, CRM Capability, CRM Unpreparedness, and Customer Relation's Quality. Furthermore, a regression model is developed to assess the company's CRM performance and guide future strategies. These insights provide PT. XYZ with valuable information to address the identified factors and enhance their CRM implementation and strategies.

Keywords: Customer Relationship Management (CRM), CRM Implementation, CRM Strategies, CRM Performance, Factor Analysis (FA), Regression Model

1. Introduction

The most important factor in ensuring the continuity of business development in all areas of operation is managing and establishing relationships with customers. The challenge for a firm to comprehend and establish relationships with its clients is a problem that is frequently encountered. This problem is usually brought on by a failure to maintain customer interactions and for the company to become more customer-centric (Chiguvi et al., 2019). Based on this occurrence, businesses must analyze it and create the best possible customer relationship management implementation and strategies in order to continue doing business, strengthen their customer satisfaction, and increase their client loyalty (M. Kamrul Islam Shaon & Hasebur Rahman, 2015). The management of a company's relationships with both current and future consumers is accomplished in large part via the usage of CRM. The CRM approach's goal is to analyze client historical data. It places a strong emphasis on customer retention strategies, which helps to boost sales. As a consequence, the company's commercial connection with its clients gets better. In addition, CRM makes it possible to adopt and build better operational procedures as well as more potent and successful customer-focused strategies, enhancing organizational performance (Soltani et al., 2018). In consideration of said knowledge, PT. XYZ is a retail company that has implemented customer relationship management (CRM) to further establish and manage their performance and sales. However, PT. XYZ's sales graph shows multiple declines in units sold throughout the years; there is a gap between the targeted units sold and their realization or actual sales performance, as seen in Figure 1.

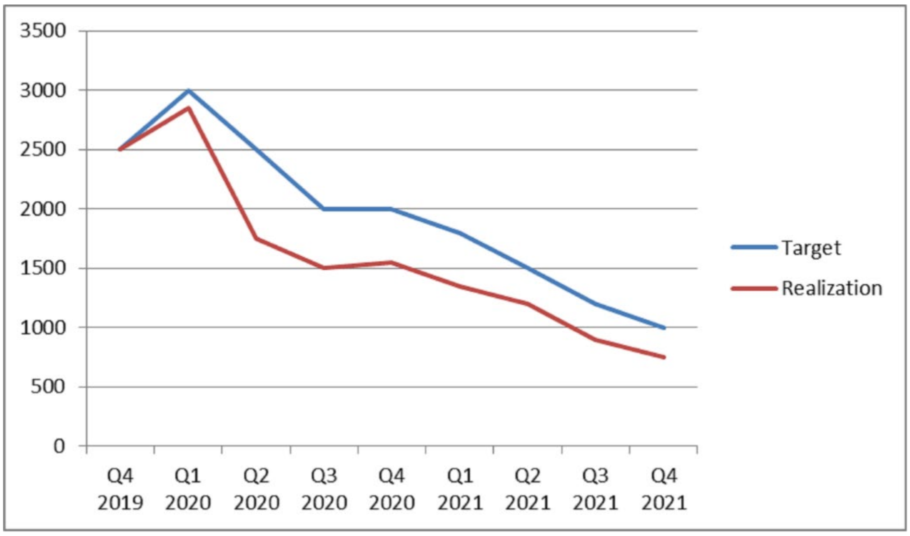

Fig. 1: Relationship between target and realization

This study aims to use this case to analyze the causing factors and develop suitable CRM strategies for PT. XYZ, which is expected to be able to reduce the gap that has occurred. Therefore, in this study, the authors will try to achieve the following set of objectives:

1. Identify what and how many factors contribute to the gap between sales targets and their realization through the use of factor analysis.
2. Constructing a model that depicts the current CRM implementation.
3. Determining the right CRM strategies that can help in improving CRM performance based on the result of the analysis.

2. Literature Review

2.1. CRM Components

Customer Relationship Management is an approach that combines the use of an efficient management system (technology) and a customer-oriented approach (customer-focused processes) to help companies develop long-term customer relationships and increase business profits (Kampani & Jhamb, 2020). It can be said that the three main activities within CRM are sales, marketing and services (Al-Homery et al., 2019). To carry out those activities, CRM component concept is indispensable. It was theorized and formulated that the main components of CRM consist of four, namely, technology, people, process, and knowledge (Al-Homery et al., 2019). Technology has become a major component in achieving the goals of CRM systems and in collecting, classifying, and storing customer information; The people component of CRM can be described as staff or employees who work within the company, especially employees who interact and manage relationships directly with customers (Almotairi, 2008); The process component refers to the company's customer centric process. Company members must have the mindset or mentality to make customer needs a top priority in order to achieve long-term profits (Karim & Habiba, 2020); Knowledge refers to managing and generating knowledge about customers; the deeper the knowledge of customers, the better the company can manage their relationships with them.

2.2. Relationship Marketing

Marketing is part of CRM's main activities. In order to build a relationship with customers, The relationship marketing approach concept is prevalently used. Relationship marketing is a marketing strategy to acquire and retain customers and create value or profit for both parties, namely, the customer and the company (Santouridis & Tsachtani, 2015). There are three approaches used to build relationships with customers through relationship marketing, namely: financial benefits, social benefits, and structural ties (Liang et al., 2008). Financial benefit is a customer relationship approach where companies build relationships with their customers through financial aspects or incentives (Balci et al., 2019). While social benefit can be described as an approach through building friendly relations with customers to building a sense of kinship through the community (Chen & Chiu, 2009), Lastly, structural ties refers to the company's approach to building long-term relationships with customers by giving value-added benefits that are exclusive in nature to the company. It means that the customers received benefits that couldn't be found elsewhere except from the company (Chiu et al., 2005).

2.3. Customer Satisfaction, Loyalty and Brand Image

Other additional concepts like customer satisfaction, loyalty and brand image are also frequently used in multiple pieces of literature on customer relations topics. Customer satisfaction refers to the emergence of a feeling of pleasure if the product or service consumed meets consumer expectations, but will create negative feelings or disappointment if the products and services offered do not meet consumer expectations (Ngo, 2015). The degree to which a client is satisfied with a product or service is mostly decided by comparing their pre-purchase expectations with the results they experience after doing so. Customer loyalty is a form of customer commitment to repurchase or re-subscribe to the products or services offered by the company in question consistently. Related studies emphasize that there are several dimensions to preserving customer loyalty, which include the customer's willingness to recommend others, and repurchase intention. In addition, loyalty is also attributed to the refusal to use alternative products. Meanwhile, brand image is the perception of consumers or potential company consumers towards the product or service brand offered based on information or reputation circulating as well as their experience with the brand (J. L. Lee et al., 2014).

2.4. CRM Implementation and Strategies

The prospect of competitive advantage that CRM can bring to a business is already well known, but it is indispensable for businesses to properly implement CRM and formulate the appropriate strategies. If an organization does not understand what CRM is and does not have a model for establishing their strategy, it seems unlikely that they will be able to implement effective CRM strategies (Payne & Frow, 2006). In addition, there are several key steps that generally contribute to successful CRM and strategy implementation. First, the organization needs to be aware of how CRM fits into the overall business strategy of the company. The company also needs to assess their current capabilities, specifically their readiness in implementing CRM. Last but not least, the company needs to formulate an implementation plan, which entails putting the plan into action and defining in detail how to accomplish the goal (Nguyen et al., 2007).

2.5. Factor Analysis

According to (Beavers et al., 2013), factor analysis is a statistical approach used to look into the relationships between a group of observable variables that are assessed by questions or items. The foundation of factor analysis is the concept of dimensionality reduction, which holds that a large number of measured and observable variables may be condensed into a smaller number of latent variables with a smaller variance and which are not directly observable. Since they cannot be measured directly, these unobservable factors are basically hypothetical constructs used to represent variables. Researchers utilize factor analysis to determine the number of factors influencing variables and determine which variables correlate with one another (Yong & Pearce, 2013).

2.6. Research Instrument

Based on the theory and concepts of CRM components, relationship marketing, customer satisfaction, customer loyalty, and brand image, a research instrument can be developed. The variable’s indicators and its description are fully explained in Table 1.

Table 1. Research Instrument

	Factors	Indicators	Statement
CRM Components	***Technology***	*Availability*	Technology has the ability to be accessed anytime and anywhere, able to respond in a timely manner (Hammami et al., 2015).
		Data Analytics	Technology has the ability to analyze data, find patterns, and predict customer behavior thus enabling the transformation from a product-centric business to a customer-centric one (Gončarovs, 2018).
		Reliability	Technology has the ability to carry out tasks reliably and accurately, and consistently; no errors (M. Kamrul Islam Shaon & Hasebur Rahman, 2015).
	People	*Employee Behavior*	Employee behaviors in serving customers, employees are friendly and have respect for customers (Saleh & El Saheli, 2018).
		Competencies	The importance of the level of ability or method possessed by employees or company employees to carry out their work (Hsieh et al., 2012).
		Enthusiasm	Employees have enthusiasm and genuine concern in providing service to customers (Z. Wang et al., 2017).
	Process	*Customer-oriented*	The company's business processes have an orientation towards customer needs. Customer-oriented processes include many aspects such as understanding customers and sharing information to create value that is satisfactory to customers (Rodriguez et al., 2015).
		Complaint handling	The importance of the ability to handle customer dissatisfaction and resolve customer problems (Bin-Nashwan & Hassan, 2017).

		Simplicity	A business process that is simple and easy to access by customers is a good process and gives a positive impression (Emaluta et al., 2019).
	Knowledge	*Knowledge Acquisition*	The process companies use to gain knowledge about customers (Cambra-Fierro et al., 2017).
		Customer-knowledge	The company has deep knowledge of its customers (Khodakarami & Chan, 2014).
Relationships Marketing	***Financial Benefit***	*Reward Program*	A reward-giving approach for customers who frequently shop with the company (Kang et al., 2015).
		Discount & Promos	The approach of giving discounts and promotional prices to certain products as incentives for customers (Hu & Chaudhry, 2020).
	Social Benefit	*Friendship*	There is a close relationship between the product or service provider company and the customer (Y. K. Lee et al., 2014).
		Fraternization	There is a sense of belonging and a familial relationship between the company and its customers (Dimitriadis, 2010).
		Personal Recognition	There is a relationship of familiarity where employees or retail salespeople can recognize their customers (Chang & Lu, 2019).
	Structural Ties	*Trust*	There is a feeling of trust between customers and the company (Shahin Sharifi & Rahim Esfidani, 2014).
		Information Sharing	The importance of sharing information with customers (Y. K. Lee et al., 2015).
		Preferential Treatment	Giving special or better treatment to an individual customer because of a good relationship with the company (Xia & Kukar-Kinney, 2014).
Customer Satisfaction		*Overall Satisfaction*	Cumulative evaluation made by customers based on their experience having transactions with the company (Ngo, 2015).
		Confirmation of Expectation	There is a match between the qualities of service or product performance offered by the company and the customer expectations (Biswas et al., 2019).
		Positive Word of Mouth	Tell others about the pleasant experience of the product or service consumed (Lang & Hyde, 2013).
Customer Loyalty		*Recommend to others*	Recommending the consumed products or services to others (Noyan & Şimşek, 2014).
		Immunity to Competitor	Customer refuses to use alternative products or services offered by competitors (Djunaidi et al., 2021).
		Repeat Purchases	Do repeat purchases of the company's products (Agrawal et al., 2013).
		Purchase Interline Product	Purchase another line of product made by the company (Syafarudin, 2021).
Brand Image		*Perceived belief*	Perceptions or beliefs that the customers have of company's brand image (Abdullah, 2015).
		Functional Image	Brand image can be seen from the function of the product it sells (Malik et al., 2012).
		Identity	The way a company identifies itself in conveying its values, individuality and uniqueness (Nandan, 2005).

2.7. Previous Studies

Previous studies have explored research with similar objectives. One of these research explored the analysis of successful CRM Implementation in luxury hotel by implementing Factor Analysis to construct new factors and proposing a research model (Sarmaniotis et al., 2013). Other previous studies focuses on using factor analysis to analyze the relationship between CRM and firm performance (Rafiki et al., 2019). Most of these studies already explored new factors and build a model. However, the analysis regarding CRM implementation and strategy in retail store industry remains scarce. Most of the previous studies out there are in hospitality, telecommunication and banking fields. Therefore, most of the new factors and models created oftentimes only applicable to the respective fields. Therefore, this research will try to use Factor Analysis to explore and construct new factors and model for CRM in retail industry with the case of PT. XYZ.

3. Research Methods

3.1. Population and Sample

The population of this study was PT. XYZ's customers, and the sample data will be collected from respondents who know PT. XYZ's product and have a history of transactions with PT. XYZ at least once. The total population identified for this study was 815 people. Therefore, using the Slovin formula, the minimum sample size for this research can be determined. With an estimated error of 5%, it was found that the minimum number of samples required for this study was 262 respondents.

3.2. Data Collection

This study used two data collection methods; a questionnaire and a literature study. Questionnaire was used and spread to potential respondents that met the requirements of being part of the sample. The questionnaire for this study used a close question and a Likert scale indicator where the respondent can answer by choosing one answer from multiple choices (the respondent can choose an answer on a scale of 1–5). The other data collection method was a literature study. The literature study is done for the theoretical foundation of this study and to know more about CRM-related knowledge such as CRM components concepts, relationship marketing, customer satisfaction, brand, etc. A variety of materials, including articles, conferences and general journals connected to the topic of research, are used in literature studies. In addition, the questionnaire's questions were built on the basis of the research instrument from the literature study.

3.3. Data Analysis

The data analysis for this study utilized Factor Analysis and will analyze the variables discovered in literature study (the research instrument). Factor analysis is suitable for this study due to several reasons. First, the aim of this study is to uncover the unknown responsible factors. Second, factor analysis is known to be able to reduce several or even hundreds of variables or questions into a smaller set for easier interpretation. Meaning that, since there are several variables involved in this study, factor analysis can be useful for categorizing the variables into meaningful groups since it is easier to focus on a small number of important factors than it is to take into consideration a large number of possibly irrelevant variables (Yong & Pearce, 2013). The following were some of the procedures involved in the factor analysis method utilized in this study:

1) Use SPSS software to conduct a reliability test based on the survey's findings to determine whether or not the results are appropriate for use as research data.
2) Calculate the value of the Barlett Test of Sphericity; this test value will then be used to evaluate if there is any substantial correlation between variables, followed by testing the Measure of Sampling Adequacy, and then creating a matrix of correlations between each variable.
3) Use factor extraction to create one or more factors from a set of existing variables. The criterion for the formation of a factor is if the Eigenvalue Component's value is greater than 1.
4) Use the varimax rotation method to factor rotates the factor matrix into a simpler matrix for

easy interpretation.
5) List the new factors that have been produced as a result of the established variables. The new factors can be interpreted and named according to the variables they represent.
6) Calculate factor scores for the study's ongoing analysis.

4. Result and Discussions

4.1. Demographics

Questionnaire was distributed to 268 respondents. Out of 268 respondents, 4 are deemed invalid, and the rest of 264 respondents are deemed valid due to meeting the requirements of knowing PT. XYZ products and having at least one history of transactions with PT. XYZ. The majority of respondents are identified to be male (86%) with the rest, 14%, being female. The respondents' age is dominated by the younger generation of 17–30 years old (58%). In addition, most of the respondents have been PT. XYZ customers for 1-3 years (51.5%).

4.2. Reliability Test

A reliability test was used to test how reliable the dataset was. The requirement for a dataset to be reliable was for the result to have a Cronbach's Alpha value of > 0.7. The result obtained in the calculation of the reliability test of 29 factors was 0.915, so it can be concluded that the result meets the requirement.

4.3. KMO & Bartlett's test

This test was used to test the validity in preparation for the factor analysis method; if the KMO value is > 0.5, then it would be deemed valid and meet the requirements. According to the results of the KMO & Bartlett's test for all 29 factors, the obtained KMO-MSA value was 0.917. Based on pre-determined criteria, a decision can be made that the research sample is suitable for factor analysis.

4.4. Data Reduction / Factor Extraction

Following that, a data reduction or factor extraction process was conducted. The result shows that Factor 1 has Eigenvalues of 8.698; Factor 2 has Eigenvalues of 1.495; Factor 3 has Eigenvalues of 1.335; Factor 4 has Eigenvalues of 1.163; and Factor 5 has Eigenvalues of 1.130. The cumulative result of the extraction of variance for all components was 47.657%. Based on the result of the factor extraction, five factors can be formed since they have eigenvalue greater than 1.

4.5. Rotated Component Matrix

The rotated component matrix output will identify the indicator for each newly formed factor. Table 2 displays the newly formed factors and the indicators. These factors are the representation of their associated variables; therefore, the factors were named based on the variables they represent.

Table 2. Newly Formed Factors

Factors	Indicators
CRM Reliability (X_1)	Reliability, Complaint Handling, Discount & Promos, Information Sharing, Recommend to others, Immunity to Competitor, Functional Image, Identity.
Underutilization of CRM (X_2)	Data Analytics, Enthusiasm, Customer-oriented, Simplicity, Reward Program, Trust, Positive Word of Mouth, Perceived Belief.
CRM Capability (X_3)	Competencies, Knowledge Acquisition, Fraternization, Overall Satisfaction, Repeat Purchases.
CRM Unpreparedness (X_4)	Availability, Employee Behavior, Customer Knowledge, Personal Recognition, Confirmation of Expectation.
Customer Relation's Quality (X_5)	Friendship, Preferential Treatment, Purchase Interline Product.

These five new factors can be interpreted as follow:

- Factor 1 is named CRM Reliability. CRM Reliability factor was analyzed to have factor loading's coefficient range of .644 to .316, and can explain 29.992% of the variance. This factor is a representation of eight indicators, which are:
    a) Reliability = technology has the ability to carry out tasks reliably and accurately, and consistently; no errors.
    b) Complaint Handling = the importance of the ability to handle customer dissatisfaction and resolve customer problems.
    c) Discount & Promos = the approach of giving discounts and promotional prices to certain products as incentives for customers.
    d) Information Sharing = the importance of sharing information with customers.
    e) Recommend to others = recommending the consumed products or services to others.
    f) Immunity to Competitor = customer refuses to use alternative products or services offered by competitors.
    g) Functional Image = brand image can be seen from the function of the product it sells.
    h) Identity = the way a company identifies itself in conveying its values, individuality and uniqueness.
- Factor 2 is named Underutilization of CRM. Underutilization of CRM was analyzed to have factor loading's coefficient range of .676 to .348, and can explain 5.156% of the variance. This factor is a representation of eight indicators which are:
    a) Data Analytics = Technology has the ability to analyze data, find patterns, and predict customer behavior thus enabling the transformation from a product-centric business to a customer-centric one.
    b) Enthusiasm = Employees have enthusiasm and genuine concern in providing service to customers.
    c) Customer-oriented = the company's business processes have an orientation towards customer needs. Customer-oriented processes include many aspects such as understanding customers and sharing information to create value that is satisfactory to customers.
    d) Simplicity = A business process that is simple and easy to access by customers is a good process and gives a positive impression.
    e) Reward Program = A reward-giving approach for customers who frequently shop with the company.
    f) Trust = There is a feeling of trust between customers and the company.
    g) Positive Word of Mouth = Tell others about the pleasant experience of the product or service consumed.
    h) Perceived Belief = Perceptions or beliefs that the customers have of company's brand image.
- Factor 3 is named CRM Capability. CRM Capability was analyzed to have factor loading's coefficient range of .747 to .559, and can explain 4.605% of the variance. This factor is a representation of five indicators which are:
    a) Competencies = the importance of the level of ability or method possessed by employees or company employees to carry out their work.
    b) Knowledge Acquisition = the process companies use to gain knowledge about customers.
    c) Fraternization = There is a sense of belonging and a familial relationship between the company and its customers.
    d) Overall Satisfaction = Cumulative evaluation made by customers based on their experience having transactions with the company.
    e) Repeat Purchases = Do repeat purchases of the company's products.
- Factor 4 is named CRM Unpreparedness. CRM Unpreparedness was analyzed to have factor loading's coefficient range of .758 to .427, and can explain 4.009% of the variance. This factor is a representation of five indicators, which are:

a) Availability = technology has the ability to be accessed anytime and anywhere, able to respond in a timely manner.
b) Employee Behavior = employee behaviors in serving customers, employees are friendly and have respect for customers.
c) Customer Knowledge = the company has deep knowledge of its customers.
d) Personal Recognition = there is a relationship of familiarity where employees or retail salespeople can recognize their customers.
e) Confirmation of Expectation = there is a match between the qualities of service or product performance offered by the company and the customer expectations.

- Factor 5 is named Customer Relation's Quality. Customer Relation's Quality was analyzed to have factor loading's coefficient range of .638 to .523, and can explain 3.895% of the variance. This factor is a representation of three indicators, which are:
  a) Friendship = there is a close relationship between the product or service provider company and the customer.
  b) Preferential Treatment = giving special or better treatment to an individual customer because of a good relationship with the company.
  c) Purchase Interline Product = purchase another line of product made by the company.

4.6. Regression Model

A regression test was then conducted between the five newly formed factors and their factor scores against the dependent variable (Y = CRM performance). The relationship between the variables is depicted in the regression model below:

$$Y = 7.061 + 0.087X1 - 0.077X2 + 0.057X3 - 0.024X4 + 0.122X5$$

Alongside an explanation of the limit value of x:

$$-5.199 < X_1 < 2.465$$
$$-3.900 < X_2 < 3.143$$
$$-4.093 < X_3 < 2.478$$
$$-4.265 < X_4 < 2.449$$
$$-3.989 < X_5 < 2.725$$

Based on this regression model result, it can be analyzed as follows:

1) Factor 1, namely CRM Reliability, has a positive value of 0.087 for the performance of CRM. This indicates that the quality of CRM Reliability is of high and has a positive effect of +0.087. By increasing the quality of each indicator of the Customer Relations Reliability factor variable, it will help increase the company's CRM Performance.
2) The second factor, namely Underutilization of CRM, was observed to have a negative value of 0.077. The negative value of 0.077 indicates that Underutilization of CRM can cause a -0.077 decrease in CRM performance at PT. XYZ.
3) For the third factor called CRM Capability, it was observed to have a positive value of 0.057, which suggested that if this factor is improved or raised by one point, it will help increase the level of CRM performance by 0.057.
4) The fourth factor, CRM Unpreparedness, was found to be negative with a coefficient value of 0.024. This suggested that a decrease in CRM Unpreparedness may raise the level of CRM Performance. Subsequently, an increase in CRM Unpreparedness may reduce the level of CRM Performance by 0.024.
5) The fifth factor, namely Customer Relations Quality, is positive with a coefficient value of 0.122, meaning that an increase in the quality of Customer Relations Quality indicators or variables will increase the level of CRM Performance by 0.122.

4.7. Theoretical Implications

The theoretical implications of this study are that there are developed new model based on five new factors found, which are CRM Reliability, Underutilization of CRM, CRM Capability, CRM Unpreparedness, and Customer Relation's Quality. The effect of said factor was also analyzed in the regression model: CRM Reliability has a positive influence on performance, Underutilization has a negative effect, CRM Capability has a positive effect on performance, CRM Unpreparedness has a negative effect on CRM Performance, and lastly, Customer Relation's Quality has a positive effect on CRM Performance. Existing theories from previous studies supported these findings. CRM Reliability relates back to previous study that 'Reliability' as a factor can be used to measure the implementation of CRM (M. Y. Wang, 2008). Prior studies also have shown that Underutilization of CRM has been present in some implementation of CRM. Some companies seem to overestimate the advantage of having CRM system, thus resulting in the underutilization of CRM System and insufficient CRM training (Haislip & Richardson, 2017). The findings for CRM Capability coincides with existing theory about the importance of CRM capability in integrating resources such as technology, people, and knowledge as well as how it enable company to achieve long term and profitable relationship with their customers (Elkordy, 2014). For CRM Unpreparedness, previous study has observed that some businesses are unprepared for implementing CRM and find its application arduous (Vallabh et al., 2015). Last but not least, the discovery of the CRM Relation's Quality factor is backed by relationship quality theory, which has been stressed by numerous academics as an intangible part of CRM performance (Y. Wang et al., 2004). According to the study, there is no general agreement on which dimensions comprise relationship quality.

4.8. Managerial or Practical Implications

Based on the regression model that has been created, researchers conducted a simulation using said model. The result of the simulation can be seen in Table 3.

Table 3. Simulation results

Condition	**Y**	**β_0**	**X_1**	**X_2**	**X_3**	**X_4**	**X_5**
Normal	7,061	7,061	0	0	0	0	0
Extreme	5.587	7,061	-5.199	3.143	-4.093	2.449	-3.989
Ideal	8.151	7,061	2.465	-3.900	2.478	-4.265	2.725

The results of this simulation have significant managerial or practical implications. In normal conditions, it shows that the current value of CRM performance is 7.061, whereas in ideal conditions, where the company pays attention to all the newly identified factors, it can raise the value of CRM performance to 8.151. But in the extreme case where the company neglects all five factors, then the CRM's performance may go down to 5.587. From the five factors identified, the company should focus on improving three factors: CRM Reliability (X_1), CRM Capability (X_3), and Customer Relation's Quality (X_5), since they have been shown to have a positive effect on CRM Performance. While the rest of the two factors, Underutilization of CRM (X_2) and CRM Unpreparedness (X_4), should be reduced to the minimum due to their negative effect on CRM Performance.

First, the company must further improve CRM Reliability to achieve the limit value of 2.465. Key steps that can be taken are: improving the reliability of the CRM to ensure that technology is always consistently active and can perform its functions without errors; paying more attention to providing discounts and promotions as well as responding quickly to customer complaints; providing the latest information to customers and the brand's community; giving special attention to customers who recommend the company's products; and maintaining the company's brand identity and image.

Second, Underutilization of CRM was found to have a negative value, meaning that the lack of CRM utilization caused a decrease in CRM performance. To reduce underutilization of CRM, the company needs to increase the utilization of their technology's data analytics, remediate the company's business processes directed towards customer orientation, simplify the company's business processes to make it easier for customers, implement a reward program that rewards customers who frequently shop with the company, and give more attention to customers' word of mouth, building customer trust and customer perceptions of the brand.

Third, CRM Capability has a positive effect on CRM Performance. An improvement in CRM Capability is needed by the company to achieve the maximum value of 2.478. The company will benefit from improving their employee's competence, collecting knowledge about their customers, building and developing community and family relationships between customers and the company, maintaining and increasing their customer's satisfaction and the level of repeat purchases from customers.

Fourth, CRM Unpreparedness has a negative effect on CRM Performance, which means that the Unpreparedness of CRM caused a decrease in CRM performance. Therefore, company needs to pay more attention to the availability of their technology, especially in ensuring the technology has a long uptime (can be accessed anytime, anywhere, and can respond quickly), improving employee behavior in providing services to customers, paying special attention to the data and knowledge of customers that have been obtained, recognizing customers who make transactions with the company personally, and ensuring that the products and services offered by the company are in accordance with the expectations promised by the company to the buyer.

Fifth, Customer Relation's Quality has a positive effect on CRM Performance, so company must improve this factor to achieve the maximum value of 2.725 by maintaining and further building friendship between the company and customers, giving special treatment to individual customers based on the closeness of their relationship with the company, and recommending customers to purchase interline products.

5. Conclusion

Based on the results of the research on CRM Implementation and Strategy using Factor Analysis method, it can be concluded that this research has addressed all the research objectives presented at the beginning. The objectives of this study are to find the responsible factors, develop a model that depicts the current CRM Implementation, and formulate the appropriate strategies to achieve the ideal performance. Therefore, here are the main findings:

1) The study identified five new factors. The five new factors are: CRM Reliability, Underutilization of CRM, CRM Capability, CRM Unpreparedness, and Customer Relation's Quality.
    a) Factor 1 (CRM Reliability) is a representation of various indicators such as Reliability, Complaint Handling, Discount & Promos, Information Sharing, Recommend to others, Immunity to Competitors, Functional Image, and Identity.
    b) Factor 2 (Underutilization of CRM) is a representation of various indicators such as Data Analytics, Enthusiasm, Customer-oriented, Simplicity, Reward Program, Trust, Positive Word of Mouth, and Perceived Belief.
    c) Factor 3 (CRM Capability) is a representation of indicators such as Competencies, Knowledge Acquisition, Fraternization, Overall Satisfaction, and Repeat Purchases.
    d) Factor 4 (CRM Unpreparedness) is a representation of indicators such as Availability, Employee Behavior, Customer Knowledge, Personal Recognition, and Confirmation of Expectation.
    e) Factor 5 (Customer Relation's Quality) is a representation of indicators such as Friendship, Preferential Treatment, and Purchase Interline Product.

2) Developed a model that demonstrates how CRM was implemented at PT. XYZ. This model can be incorporated into a simulation that helps the business choose the best practices and strategies to implement CRM in order to achieve the best CRM Performance.

$$Y = 7.061 + 0.087X1 - 0.077X2 + 0.057X3 - 0.024X4 + 0.122X5$$

Alongside an explanation of the limit value of x:

$$-5.199 < X_1 < 2.465$$
$$-3.900 < X_2 < 3.143$$
$$-4.093 < X_3 < 2.478$$
$$-4.265 < X_4 < 2.449$$
$$-3.989 < X_5 < 2.725$$

3) The result of this study has several implications that can help in formulating the appropriate strategies. First, based on the model that has been developed as well as its simulation, the company must enhance CRM reliability since it has a positive effect on CRM Performance, focus on providing discounts and promotions, respond quickly to customer complaints, provide the latest information, prioritize customer recommendations, and maintain the brand's identity and image. Second, CRM underutilization negatively impacts performance. To reduce underutilization, companies should increase data analytics utilization, streamline customer-oriented business processes, implement reward programs, prioritize word-of-mouth, and build customer trust and perceptions of the brand. Third, CRM Capability positively impacts CRM Performance. To achieve maximum value, the company needs improvements in employee competence, acquiring more customer knowledge, deepening friendships with customers, enhance customer satisfaction, and increasing customer repeat purchases. Fourth, CRM unpreparedness negatively impacts performance, requiring companies to focus on technology availability, employee behavior, customer data, and ensuring products and services align with buyer expectations. This includes ensuring long-uptime access, improving employee behavior, and recognizing customers who make transactions personally. Fifth, to achieve the ideal condition, the company must improve customer relationship quality by maintaining friendships, offering special treatment, and recommending interline product purchases.

5.1. Limitations

In this research utilizing Factor Analysis, there are several limitations encountered. First, this research only involves factors that affect the implementation of Customer Relationship Management. There are more factors and variables that researchers can consider incorporating into their research. Second, the sample for this study only involved respondents who knew about PT. XYZ products and had been customers of PT. XYZ. Third, because the data collection process uses a questionnaire method, the quality of the data obtained is highly dependent on the answers given by respondents. Some of these limitations are considered to have had an influence or impact on the results of this study. Therefore, the limitations presented can be a lesson for developing future research. For future research, studies can try to add factors from outside the CRM implementation theory. In addition, respondent data can also be made more diverse by increasing the scope of the respondent population by taking respondent data from other organizations that implement CRM.

References

Abdullah, A. (2015). A Structural Model of The Relationships between Brand Image, Brand Trust and Brand Loyalty. *International Journal of Management Research & Review*, *5*(3), 137–145.

Agrawal, R., Gaur, S. S., & Narayanan, A. (2013). Determining customer loyalty: Review and model. *The Marketing Review*, *12*(3), 275–289. https://doi.org/10.1362/146934712x13420906885430

Al-Homery, H. A., Asharai, H., & Ahmad, A. (2019). The Core Components and Types of CRM. *Pakistan Journal of Humanities and Social Sciences*, *7*(1), 121–145. https://doi.org/10.52131/pjhss.2019.0701.0076

Almotairi, M. (2008). CRM success factors taxonomy. *Proceedings of the European and Mediterranean Conference on Information Systems, EMCIS 2008*, *2008*.

Balci, G., Caliskan, A., & Yuen, K. F. (2019). Relational bonding strategies, customer satisfaction, and loyalty in the container shipping market. *International Journal of Physical Distribution and Logistics Management*, *49*(8), 816–838. https://doi.org/10.1108/IJPDLM-02-2019-0051

Beavers, A. S., Lounsbury, J. W., Richards, J. K., Huck, S. W., Skolits, G. J., & Esquivel, S. L. (2013). Practical considerations for using exploratory factor analysis in educational research. *Practical Assessment, Research and Evaluation*, *18*(6), 1–13.

Bin-Nashwan, S. A., & Hassan, H. (2017). Impact of Customer Relationship Management (CRM) on Customer Satisfaction and Loyalty: A Systematic Review. *Journal of Advanced Research in Business and Management Studies*, *6*(1), 86–107. https://www.akademiabaru.com/submit/index.php/arbms/article/view/1224

Biswas, K. M., Nusari, M., & Ghosh, A. (2019). The Influence of Website Service Quality on Customer Satisfaction Towards Online Shopping: The Mediating Role of Confirmation of Expectation. *International Journal of Management Science and Business Administration*, *5*(6), 7–14. https://doi.org/10.18775/ijmsba.1849-5664-5419.2014.56.1001

Cambra-Fierro, J. J., Centeno, E., Olavarria, A., & Vazquez-Carrasco, R. (2017). Success factors in a CRM strategy: technology is not all. *Journal of Strategic Marketing*, *25*(4), 316–333. https://doi.org/10.1080/0965254X.2016.1148760

Chang, H. H., & Lu, L. C. (2019). Actively Persuading Consumers to Enact Ethical Behaviors in Retailing: The Influence of Relational Benefits and Corporate Associates. *Journal of Business Ethics*, *156*(2), 399–416. https://doi.org/10.1007/s10551-017-3595-2

Chen, Y. L., & Chiu, H. C. (2009). The effects of relational bonds on online customer satisfaction. *Service Industries Journal*, *29*(11), 1581–1595. https://doi.org/10.1080/02642060902793326

Chiguvi, D., Madondo, E., & Dube, Z. (2019). The Importance of Customer Relationship Management in the Local Government Authorities in Zimbabwe. *Applied Economics and Finance*, *6*(6), 15. https://doi.org/10.11114/aef.v6i6.4051

Chiu, H. C., Hsieh, Y. C., Li, Y. C., & Lee, M. (2005). Relationship marketing and consumer switching behavior. *Journal of Business Research*, *58*(12), 1681–1689. https://doi.org/10.1016/j.jbusres.2004.11.005

Dimitriadis, S. (2010). Testing perceived relational benefits as satisfaction and behavioral outcomes drivers. *International Journal of Bank Marketing*, *28*(4), 297–313. https://doi.org/10.1108/02652321011054981

Djunaidi, F. G., Chairul Basrun Umanailo, M., Tawulo, M. A., Tang, B., Wula, Z., Mukmin, N. A., & Unga, W. O. H. (2021). The effect of customer satisfaction on customers loyalty at the green mart supermarket in namrole city. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 6143–6153.

Elkordy, M. (2014). The impact of crm capability dimensions on organizational performance. *European Journal of Business and Social Sciences*, *2*(10), 128–146.

Emaluta, F. H. K., Isnalita, I., & Soewarno, N. (2019). The Effect of Customer Relationship Management (CRM) To Customers' Loyalty and Customers' Satisfaction as Mediator Variables. *Jurnal AKSI (Akuntansi Dan Sistem Informasi)*, *4*(2), 59–63. https://doi.org/10.32486/aksi.v4i2.352

Gončarovs, P. (2018). Data Analytics in CRM Processes: A Literature Review. *Information Technology and Management Science*, *20*(1), 103–108. https://doi.org/10.1515/itms-2017-0018

Haislip, J. Z., & Richardson, V. J. (2017). The effect of Customer Relationship Management systems on firm performance. *International Journal of Accounting Information Systems*, *27*(September), 16–29.

https://doi.org/10.1016/j.accinf.2017.09.003

Hammami, S., Al Samman, H., & Alraja, M. (2015). The role of CRM systems in consolidating the strategic position of the organization. *International Journal of Applied Business and Economic Research*, *13*(4), 1629–1640.

Hsieh, S., Lin, J., & Lee, H.-C. (2012). Analysis on Literature Review of Competency. *Academia Education: International Review of Business and Economics*, *2*, 25–50.

Hu, M., & Chaudhry, S. S. (2020). Enhancing consumer engagement in e-commerce live streaming via relational bonds. *Internet Research*, *30*(3), 1019–1041. https://doi.org/10.1108/INTR-03-2019-0082

Kampani, N., & Jhamb, D. (2020). Analyzing the role of E-CRM in managing customer relations: A critical review of the literature. In *Journal of Critical Reviews* (Vol. 7, Issue 4, pp. 221–226). https://doi.org/10.31838/jcr.07.04.41

Kang, J., Alejandro, T. B., & Groza, M. D. (2015). Customer-company identification and the effectiveness of loyalty programs. *Journal of Business Research*, *68*(2), 464–471. https://doi.org/10.1016/j.jbusres.2014.06.002

Karim, R. Al, & Habiba, W. (2020). How CRM Components Impact Customer Loyalty: A Case from Bangladesh Banking Industry. *Journal of Management Info*, *7*(2), 43–61. https://doi.org/10.31580/jmi.v7i2.1165

Khodakarami, F., & Chan, Y. E. (2014). Exploring the role of customer relationship management (CRM) systems in customer knowledge creation. *Information and Management*, *51*(1), 27–42. https://doi.org/10.1016/j.im.2013.09.001

Lang, B., & Hyde, K. F. (2013). Word of Mouth: What We Know and What We Have Yet To Learn. *Journal of Consumer Satisfaction, Dissatisfaction & Complaining Behavior*, *26*, 1–18.

Lee, J. L., James, J. D., & Kim, Y. K. (2014). A Reconceptualization of Brand Image. *International Journal of Business Administration*, *5*(4), 1–11. https://doi.org/10.5430/ijba.v5n4p1

Lee, Y. K., Choi, B. H., Kim, D. J., & Hyun, S. S. (2014). Relational benefits, their consequences, and customer membership types. *Service Industries Journal*, *34*(3), 230–250. https://doi.org/10.1080/02642069.2013.763927

Lee, Y. K., Kim, S., Byrd, H. F., Kim, M. S., Lee, J. H., & Lim, K. T. (2015). Relational bonding strategies in the franchise industry: The moderating role of duration of the relationship. *Journal of Business and Industrial Marketing*, *30*(7), 830–841. https://doi.org/10.1108/JBIM-10-2013-0237

Liang, C. J., Chen, H. J., & Wang, W. H. (2008). Does online relationship marketing enhance customer retention and cross-buying? *Service Industries Journal*, *28*(6), 769–787. https://doi.org/10.1080/02642060801988910

M. Kamrul Islam Shaon, S., & Hasebur Rahman, M. (2015). A Theoretical Review of CRM Effects on Customer Satisfaction and Loyalty. *Central European Business Review*, *4*(1), 23–36. https://doi.org/10.18267/j.cebr.116

Malik, M. E., Naeem, B., & Munawar, M. (2012). Brand image : Past , present and future related papers. *Journal of Basic and Applied Scientific*, *2*(12), 13069–13075.

Nandan, S. (2005). An exploration of the brand identity–brand image linkage: A communications perspective. *Journal of Brand Management*, *12*(4), 264–278. https://doi.org/10.1057/palgrave.bm.2540222

Ngo, V. M. (2015). Measuring Customer Satisfaction: a Literature Review. *7th International Scientific*

Conference, *January*, 1637–1654. https://www.researchgate.net/publication/318827962

Nguyen, T. U. H., Sherif, J. S., & Newby, M. (2007). Strategies for successful CRM implementation. *Information Management and Computer Security*, *15*(2), 102–115. https://doi.org/10.1108/09685220710748001

Noyan, F., & Şimşek, G. G. (2014). The antecedents of customer loyalty. *Procedia - Social and Behavioral Sciences*, *109*(2002), 1220–1224. https://doi.org/10.1016/j.sbspro.2013.12.615

Payne, A., & Frow, P. (2006). Customer Relationship Management: from Strategy to Implementation. *Journal of Marketing Management*, *22*(1–2), 135–168. https://doi.org/10.1362/026725706776022272

Rafiki, A., Hidayat, S. E., & Al Abdul Razzaq, D. (2019). CRM and organizational performance: A survey on telecommunication companies in Kuwait. *International Journal of Organizational Analysis*, *27*(1), 187–205. https://doi.org/10.1108/IJOA-11-2017-1276

Rodriguez, M., Peterson, R. M., & Ajjan, H. (2015). Crm/Social Media Technology: Impact on Customer Orientation Process and Organizational Sales Performance. In *Developments in Marketing Science: Proceedings of the Academy of Marketing Science* (Issue March 2021, pp. 636–638). https://doi.org/10.1007/978-3-319-10951-0_233

Saleh, L., & El Saheli, L. (2018). The Impact of CRM Strategy on Customer Loyalty in SMEs. *International Business Research*, *11*(11), 37. https://doi.org/10.5539/ibr.v11n11p37

Santouridis, I., & Tsachtani, E. (2015). Investigating the Impact of CRM Resources on CRM Processes: A Customer Life-cycle Based Approach in the Case of a Greek Bank. *Procedia Economics and Finance*, *19*(15), 304–313. https://doi.org/10.1016/s2212-5671(15)00031-3

Sarmaniotis, C., Assimakopoulos, C., & Papaioannou, E. (2013). Successful implementation of CRM in luxury hotels: determinants and measurements. *EuroMed Journal of Business*, *8*(2), 134–153. https://doi.org/10.1108/EMJB-06-2013-0031

Shahin Sharifi, S., & Rahim Esfidani, M. (2014). The impacts of relationship marketing on cognitive dissonance, satisfaction, and loyalty. *International Journal of Retail & Distribution Management*, *42*(6), 553–575. https://doi.org/10.1108/ijrdm-05-2013-0109

Soltani, Z., Zareie, B., Milani, F. S., & Navimipour, N. J. (2018). The impact of the customer relationship management on the organization performance. *Journal of High Technology Management Research*, *29*(2), 237–246. https://doi.org/10.1016/j.hitech.2018.10.001

Syafarudin, A. (2021). The Effect of Product Quality on Customer Satisfaction Implications on Customer Loyalty in the Era Covid-19. *Ilomata International Journal of Tax and Accounting*, *2*(1), 71–83. https://doi.org/10.52728/ijtc.v2i1.204

Vallabh, D., Radder, L., & Venter, D. (2015). Factors preceding CRM readiness in small- and medium-sized tourism enterprises. *Acta Commercii*, *15*(1), 1–9. https://doi.org/10.4102/ac.v15i1.263

Wang, M. Y. (2008). Measuring e-CRM service quality in the library context: A preliminary study. *Electronic Library*, *26*(6), 896–911. https://doi.org/10.1108/02640470810921655

Wang, Y., po lo, H., Chi, R., & Yang, Y. (2004). An integrated framework for customer value and customer-relationship-management performance: A customer-based perspective from China. *Managing Service Quality: An International Journal*, *14*(July 2014), 169–182. https://doi.org/10.1108/09604520410528590

Wang, Z., Singh, S. N., Jessica Li, Y., Mishra, S., Ambrose, M., & Biernat, M. (2017). Effects of employees' positive affective displays on customer loyalty intentions: An emotions-associal-information perspective. *Academy of Management Journal*, *60*(1), 109–129.

https://doi.org/10.5465/amj.2014.0367

Xia, L., & Kukar-Kinney, M. (2014). For our valued customers only: Examining consumer responses to preferential treatment practices. *Journal of Business Research*, *67*(11), 2368–2375. https://doi.org/10.1016/j.jbusres.2014.02.002

Yong, A. G., & Pearce, S. (2013). A Beginner's Guide to Factor Analysis: Focusing on Exploratory Factor Analysis. *Tutorials in Quantitative Methods for Psychology*, *9*(2), 79–94. https://doi.org/10.20982/tqmp.09.2.p079