An Analysis of Customer Satisfaction and Its Effect on Customer Relationship Management

1st Yogi Sugiarto Maulana
Department of Business Administration
STISIP Bina Putera Banjar
Banjar City 46311, Indonesia
*yogi.sm@stisipbp.ac.id

2nd Dian Hadiani
Department of Business Administration
STISIP Bina Putera Banjar
Banjar City 46311, Indonesia

3rd Dara Siti Nurjanah
Department of Business Administration
STISIP Bina Putera Banjar
Banjar City 46311, Indonesia

4th Asep Endri Mulyana
Department of Business Administration
STISIP Bina Putera Banjar
Banjar City 46311, Indonesia

5th Agam Nurul Fajar
Department of Business Administration
STISIP Bina Putera Banjar
Banjar City 46311, Indonesia

Abstract—**The purpose of this study is to determine and analyze: Customer Relationship Management (CRM) influence of customer satisfaction toward PT Tiki Jalur Nugraha Ekakurir (JNE) Banjar City Branch Office. The study was conducted with the quantitative approach under the frame of explanatory design. 100 customers were selected as the participants who were previously chosen by using Simple Random Sampling. The data were analyzed by using the statistical methods, namely Pearson Product Moment correlation. The results showed that the influence of Customer Relationship Management (CRM) on customer satisfaction by 50.08%. The hypothesis testing indicated that there is a significant influence of Customer Relationship Management (CRM) on customer satisfaction toward PT Tiki Jalur Nugraha Ekakurir (JNE) Banjar City Branch Office. This indicates that, Customer Relationship Management (CRM) is very important to increase customer satisfaction.**

Keywords—Customer Satisfaction, Effect, Customer Relationship Management

I. INTRODUCTION

Customers are the key for achieving company's success. For doing so, the company has to optimize customer's satisfaction and minimize various problems which correlate directly to customers. They, the customers will be postive convinced if their expectations from bought products or services can be met or even exceeded [1]. The current trend of dynamic progress and customer's needs can be solved if the company has reliable and well-organized customer management systes which is well known as Customer Relationship Management (CRM) [2].

Customer Relationship Management (CRM) is such of a business and marketing strategy that integrates technology, processes and business activities for customers [3]. This whole system involves a data record process and data management from customers, vendors, suppliers, partners and other related internal processes. CRM systems can optimize relationships with existing customers, help attracting potential customers, and get previous customers to order or buy products or services [4]. In addition, CRM is also a tool for managing customer life cycles, assessing customers' satisfaction, and incerasing customers [5]. The CRM system was originally started as a database for customer contact information only, but recently it is growing into more advanced management tool that can be utilized as a tool for helping business communication improvement [6].

Supporting the previous statements on CRM, it also offers benefit for implementing CRM are; to increase customer's satisfaction and loyalty also provide value to the company [2], [7]. In addition, CRM systems can assist employees in organizing activities, managing contacts, and managing their own documents and provide reports and information for organizations that provide opportunities and potential for organizations to achieve competitive advantage, as well as to see the potential of new products and markets [7].

Some previous researchers have conducted research on CRM. Based on the data findings, Customer Relationship Management (CRM) is seen as a factor which contribute on the influence of customer's loyalty [8] [9] [10]. For instance, the research data from National Electriciy Company East Java regional, Indonesia proves that CRM and customers' service quality have a positive and significant impact on customers' satisfaction [11]. However, none of the research was conducted on the courier service company.

PT Tiki Jalur Nugraha Ekakurir (JNE) is one of the largest and most extensive freight forwarding service companies in Indonesia. In 1990, Soeprapto Suparno

established it. In the beginning, a number of personnel and operating capital of this courier company was only 100 million rupiah. By that time progress, it began to develop into an international freight forwarder service provider at that time. In 1991. After the reputation of JNE was increasingly known not only abroad but also domestically, and the potential for shipping goods in the country that began to develop at that time. It has expanded its business into the small cities such as Banjar.

Furthermore, the present study's purpose was in-depth analysis on the effect of Customer Relationship Management (CRM) toward Customers' Satisfaction at PT Jalur Nugraha ekakurir (JNE) Banjar city branch office.

II. LITERATURE REVIEW

A. Customer Relationship Management (CRM)

Customer Relationship Management is an approach to build and maintain long-term business with customers [12]. It is the process of managing detailed information about each customer and managing carefully the age of all customers to maximize customers' loyalty [13]. It is then a set of strategies and processes that improve value and reciprocity for individual customers, build preferences for company and improve business results with their customers for long lasting life of company [14].

Currently, the system of CRM has already utilized technology which is better known as E-CRM. This system works on a process to maximize sales for existing customers, fostering ongoing relationships through the use of digital communication technologies such as databases, websites, customer services, email marketing and social media [15]. Cost efficiency, more flexible operational activities, and optimization of resources can be achieved by utilizing this system [16].

The purpose of applying CRM for company is to provide better service, and support the sales process to customers, and ultimately increase company profits [17].

B. Customer Satisfaction

The word "satisfaction" is defined as the level of one's feelings of happiness or disappointment that arises after comparing the perceived performance (outcome) with his/her expectations. Likewise, customers' satisfaction is an indicator of a company's future financial success [18]. Customers' satisfaction is a consumers' response toward product or service which can be assumed based on customer needs, and can determine whether the buyer will be a stable customer or not [19]. In today's harsh and massive business world, worth service in developing good relationships with customers is increasing a high level of customers' satisfaction [20].

Customers' satisfaction and orientation are both urgent competitive benefits in all production areas [18]. The demand of companies must meet the needs and customers' requirements for achieving customers' satisfaction [21] [18]. Commonly, a company do survey on customers' satisfaction once a year using the satisfaction index provided by outside consultants to measure companies' service. [21]

III. METHODS

A. Research Design

The present research employed a quantitative design with focusing on Explanatory Research method. Based on the its type, associative research was conducted under research participants. Associative research is research that aims to determine the relationship between two or more variables.

B. Research Paradigm

The research paradigm can be clearly drawn as follows:

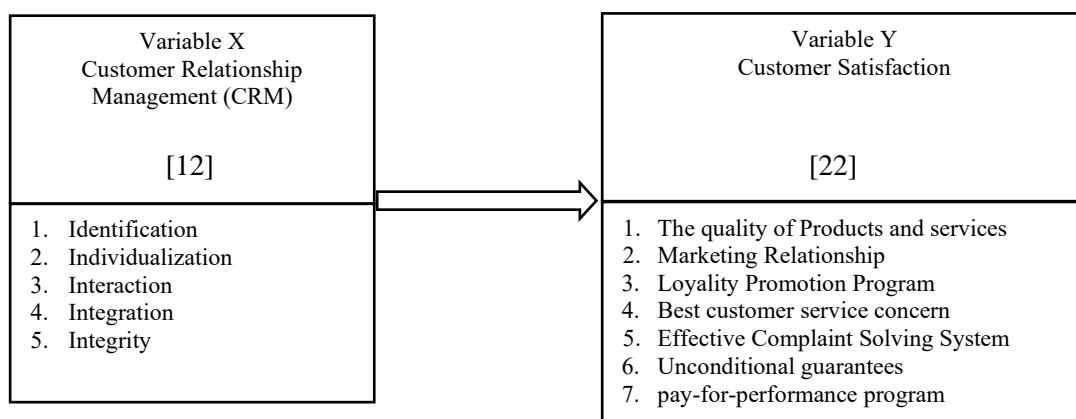| Variable X Customer Relationship Management (CRM) [12]	Variable Y Customer Satisfaction [22]
1. Identification 2. Individualization 3. Interaction 4. Integration 5. Integrity	1. The quality of Products and services 2. Marketing Relationship 3. Loyality Promotion Program 4. Best customer service concern 5. Effective Complaint Solving System 6. Unconditional guarantees 7. pay-for-performance program

Fig. 1. Research Paradigm

C. Sampling Technique

The total population of present study is all customers from PT Tiki Jalur Nugraha Ekakurir (JNE) Banjar city branch office in the year of 2017 with the total number 95.921 participants.

The study employed probability sampling especially simple random sampling technique. Based on Slovin's formula of sampling calculation, the error tolerance is 10% from population which means the total of sample of research is 100 participants.

D. Research Insruments

The primer data was collected to answer the research questions. The study was used observation, interview, questionnare distribution to research participants in this specific case customers' satisfaction at PT Jalur Nugraha ekakurir (JNE) Banjar city branch office.

The study applied Likert scale questionnare. This scale is used to measure either indivual or group of research participants on the attitude, arguments, and perceptions about social phenomenon [23].

Ordinal data must be increased to interval data generated from the interval scale. One of the data conversion methods used by researchers to improve measurement data into interval data is the Successive Interval (MSI) Method.

E. Data Analysis Technique

This study used product moment correlation coefficient analysis, hypothesis testing, and simple linear regression equations.

IV. RESULT AND DISCUSSION

In finding the data research on the effect of Customer Relationship Management (CRM) on customers' satisfaction, a correlation coefficient (Pearson Product Moment Formula) analysis, coefficient of determination, hypothesis testing, and regression equations.

A. Correlation Coeficient

The study utilized Statistical Product and Solution Service (SPSS) program for windows version 22.0 to determine the magnitude of the correlation or relationship of free variables (Customer Relationship Management (CRM)) to the dependent variable (Customer Satisfaction). The data can be seen in the output calculation results as follows:

TABLE I. TABLE SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.713[a]	.508	.503	3.340
a. Predictors: (Constant), Customer Relationship Management (CRM)				

The data points out that correlation coefitient (rxy) is 0.713. From these data, it can be said that correlation of Customer Relationship Management (CRM) to customers' satisfaction is 0.713. The previous value must be interpreted in accordance with the guidelines [23] as follows:

TABLE II. INTERPRETATION GUIDELINES

Coeficient Level	Relationship Category
0.00 – 0.199	Very low
0.20 – 0.399	Low
0.40 – 0.599	Medium
0.60 – 0.799	High
0.80 – 1.000	Very high

Based on these guidelines, the data shows that the correlation between Customer Relationship Management (CRM) and customers' satisfaction has a "strong" relationship, which is between 0.60 - 0.799.

B. Determination Coeficient

The magnitude of the effect of variable X (Customer Relationship Management) on the variable Y (Customer Satisfaction) is calculated using the coefficient of determination formula which can be seen as follows:

DC $= r^2$ x 100%
Note:
DC = Value of the coefficient of determination (determinant coefficient)
r = Correlation coefficient value
Calculation:

DC $= r^2$ x 100%
DC $= 0,713^2$ x 100%
DC $= 0,5084$ x 100%
DC $= 50,8\%$

From aforementioned data, it can be concluded that the number of the influence of Customer Relationship Management (CRM) on customer satisfaction is 50.8% and the rest of other factors are not examined. In this study, the factor of service quality and product / service quality has contributed 49.2%.

Hypothesis test (t test) was also conducted to determine the level of significance of the effect of Customer Relationship Management (CRM) on customers' satisfaction. Based on the results of the analysis using the SPSS version 22 program, the results are as follows:

TABLE III. COEFICIENTS

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.009	1.638		6.110	.000
	Customer Relationship Management (CRM)	.733	.073	.713	10.056	.000
a. Dependent Variable: Kepuasan Pelanggan						

Based on the calculation above, the value of t count 10.056> t table 1.98472 then Ha is accepted and Ho is rejected. Thus, it was concluded that there was a significant effect of Customer Relationship Management (CRM) on customers' satisfaction. This result also is similar to previous research which revealed that the CRM system has a positive and significant effect on customer satisfaction [8] [24] [10].

C. Regression Equation

Furthermore, for the regression equation seen in table 3 (coefficients) with the following formula:

$$Y = a + bX$$
$$Y = 10.009 + 0.733X$$

Based on the regression equation above, it can be interpreted that every time there is a change or increase in the variable Customer Relationship Management (X) then there is a change or an increase in the variable Customer Satisfaction (Y). Thus, it can be concluded that the balance position between the Customer Relationship Management (variable X), Customer Satisfaction (variable Y) which indicate that variable Customer Relationship Management (CRM) has a positive and significant effect on customers' satisfaction variables at PT Tiki Jalur Nugraha Ekakurir (JNE) Banjar.

V. CONCLUSION

Customers' satisfaction at PT Tiki Jalur Nugraha Ekakurir (JNE) is in the good category. The highest score is on the statement "the company has a good quality product". The level of customer satisfaction at PT Tiki Jalur Nugraha Ekakurir (JNE) is effected by the customer relationship management (CRM) system implemented by the company. Which with CRM, the company enable study customer characteristics in detail, adjust company offerings to individual requests, and maintain the privacy of each customer.

REFERENCES

[1] R. L. Oliver, "Measurement and evaluation of satisfaction processes in retail settings," *J. Retail.*, vol. 57, no. 3, pp. 25–48, 1981.

[2] S. Maryanti, L. Andriani, Fatmasari, N. Widyawati, and A. Santoso, "Customer relationship management (crm) practices and customer satisfaction: Evidence from retail stores in Indonesia," *Int. J. Innov. Creat. Chang.*, vol. 9, no. 5, pp. 80–94, 2019.

[3] A. Payne, *Handbook of CRM: Achieving Excellence in Customer Management*. Oxford: Routledge., 2006.

[4] W. Elfarmawi, "Correlation between Customer Relationship Management System Usage, Product Innovation, and Customer Satisfaction," *Found. Manag.*, vol. 11, no. 1, pp. 23–32, 2019.

[5] S. Das and M. Mishra, "The impact of customer relationship management (CRM) practices on customer satisfaction," in *Business Governance and Society: Analyzing Shifts, Conflicts, and Challenges*, 2018, pp. 43–54.

[6] R. Jamali, A. Moshabaki, H. Aramoon, and A. Alimohammadi, "Customer relationship management in electronic environment," *Electron. Libr.*, vol. 31, no. 1, pp. 119–130, 2013.

[7] A. Al-Arafati, K. A. Kadir, and S. Al-Haderi, "The mediating effect of output quality on the relationship between top management support and customer satisfaction on the implementation of customer relationship management system in public sector," *Acad. Strateg. Manag. J.*, vol. 18, no. 2, 2019.

[8] R. Saeed, R. N. Lodhi, S. Nazir, M. Safdar, Z. Mahmood, and M. Ahmad, "Impact of customer relationship management on customer satisfaction," *World Appl. Sci. J.*, vol. 26, no. 12, pp. 1653–1656, 2013.

[9] M. Abuhashesh, R. Al-Dmour, and R. Masa'Deh, "Reviewing the literature among customer relationship management, creating values, customer satisfaction, and customer loyalty," in *33rd International Business Information Management Association Conference: Education Excellence and Innovation Management through Vision 2020, IBIMA 2019*, 2019, pp. 7272–7281.

[10] M. Sulaeman *et al.*, "Implementation of GCG In Making Reputation And CRM, Toward Customer Loyality BT - 1st International Conference on Life, Innovation, Change and Knowledge (ICLICK 2018)," 2019.

[11] N. M. Priyatna and D. Sawitri, "The influence of customer relationship management and service quality on corporate image and customer satisfaction of PT. PLN East Java, Indonesia," *Int. J. Appl. Bus. Econ. Res.*, vol. 15, no. 24, pp. 713–724, 2017.

[12] D. Chaffey, F. Ellis-Chadwick, R. Mayer, and K. Johnston, *Internet marketing: strategy, implementation and practice*. Pearson Education, 2009.

[13] P. Kotler and K. L. Keller, "Marketing Management 13th Edition. New Jersey-America." Pearson International Edition, 2009.

[14] I. Gordon, "Best practices: Customer relationship management," *Ivey Bus. J.*, vol. 67, no. 2, pp. 1–5, 2002.

[15] A. Kumar, "A study on e-customer relationship management," *Abhinav Natl. Mon. Ref. J. Res. Commer. Manag.*, vol. 4, no. 2, 2015.

[16] C. Hendriyani and S. J. Raharja, "Analysis building customer engagement through e-CRM in the era of digital banking in Indonesia," *Int. J. Econ. Policy Emerg. Econ.*, vol. 11, no. 5, pp. 479–486, 2018.

[17] R. Kalakota and M. Robinson, *e-Business: Roadmap for Success*. AS: Addison-Wesley, 2009.

[18] P. Kotler, "Marketing management: The millennium edition," *Mark. Manag. Millenn. Ed.*, 2000.

[19] J. Kim, E. Suh, and H. Hwang, "A model for evaluating the effectiveness of crm using the balanced scorecard," *J. Interact. Mark.*, vol. 17, no. 2, pp. 5–19, 2003.

[20] Z. Deng, Y. Lu, K. K. Wei, and J. Zhang, "Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China," *Int. J. Inf. Manage.*, vol. 30, no. 4, pp. 289–300, 2010.

[21] N. Mohammadhossein, M. N. Ahmad, N. H. Zakaria, and S. Goudarzi, "A study towards the relation of customer relationship management customer benefits and customer satisfaction," *Int. J. Enterp. Inf. Syst.*, vol. 10, no. 1, pp. 11–31, 2014.

[22] F. Tjiptono, "Pemasaran Jasa–prinsip, penerapan, dan penelitian," *Yogyakarta Andi Offset*, 2014.

[23] M. Sugiyono, "Educational Research Methods Quantitative, Qualitative Approach and R&D," *Bandung Alf.*, 2014.

[24] A. R. Rostami, C. Valmohammadi, and J. Yousefpoor, "The relationship between customer satisfaction and customer relationship management system; a case study of ghavamin bank," *Ind. Commer. Train.*, vol. 46, no. 4, pp. 220–227, 2014.