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Customer Satisfaction Model: Product Quality Analysis, Customer Relationship Marketing and Service Quality-Case Study on Water Supply Customers of Bintaro Jaya

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Abstract: Bintaro Jaya Clean Water Customer Satisfaction Model, Product Quality Analysis, Customer Relationship Marketing and Quality of Service, aims to analyze the Influence of Product Quality, Customer Relationship Marketing and Quality of Service to Customer Satisfaction either partially or simultaneously. This research uses questionnaire instrument and is a quantitative research with multiple linear regression analysis tool with SPSS 2.00 analysis tool. Sampling technique used in this research is Non Probability Sampling and Sampling Technique in this research is by using method of Purposive Sampling, where researcher use deliberate deliberation in selecting member of population which is considered appropriate in giving necessary information or sample unit according to Certain criteria desirable research. This analysis is continued with Determination Analysis (R Square), T test (partial) and F test (simultaneous). The results of this study are that Product Quality, Customer Relationship Marketing and Quality Services effect on Customer Satisfaction either partially or simultaneously. The better quality of Customer Relationship Marketing and Quality of Service will be able to increase Customer Satisfaction significantly.

Keywords: Customer Satisfaction, Product Quality, Customer Relationship Marketing and Quality of Service.

INTRODUCTION

Indonesia is fourth most populous country in the world. High population in Indonesia needs to be controlled, otherwise it will create problems related to the adequate provision of staple food and other primary needs. Recently, people's needs are increasingly varied. In order to meet their necessities, the people prefer to live in urban area rather than in suburb. This phenomena has inspired private sectors as well as PT Jaya Real Property, tbk. to build new dwelling area in downtown.

Bintaro Jaya provides its occupant with various facilities, for example sport center, mosques, churches, and public transports. In addition, Bintaro Jaya in cooperation with Tirta kerta Raharja, a regional drinking water company (PDAM), is able to supply drinking water for its occupants and for the people surrounding it. (*azthynjcs.blogspot.com)*

Providing drinking water, Bintaro Jaya management also takes care of its quality. Customer satisfaction is so essential that Bintaro Jaya management needs to ensure the quality of drinking water by referring to the ministry of health regulatory (Permenkes No. 416/Menkes/PER/IX/1990). The followings are data from PT Jaya Real Property, Tbk which show the physical conditions of drinking water in table 1. Meanwhile, table 2 indicates the chemical condition of drinking water from 2013 to 2015.

Table-1: **The Physical Condition of Drinking Water in Average**

Year		physics				
	Parameter	Colour	Flavor & Odor	Temperature	Turbidity	Total dissolved solids
	Unit	TCU		oC	NTU	mg/l
	Maximum Level PERMENKES RI	50	No smell and taste	±3 oC	25	1500
2013	-	0.85	No	28.08	0.50	344.77
2014	-	0.81	No	27.78	0.51	320.31
2015	-	0.77	No	27.48	0.53	295.85

Sumber : PT Jaya Real Property, Tbk (2016)

The data reveal that physical condition of drinking water from 2013 to 2015 met the requirement of healthy drinking water.

Table-2: **The Chemical Level of Drinking Water in Average**

Year	CHEMISTRY									
	Parameter	pH	Chlorine	Hardness	Iron	Manganese	Chloride	Sulphate	Nitrate	Nitrite
	Unit		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
	Maximum Level PERMENKES RI	6,5-9,0		500	1	0,5	600	400	10	1,0
2013	-	7.44	-	20.66	0.12	0.07	4.82	0.15	0.25	0.22
2014	-	7.33	-	22.68	0.10	0.07	5.06	0.17	0.43	0.24
2015	-	7.21	-	4.70	0.07	0.06	5.30	0.18	0.62	0.26

Source: PT Jaya Real Property, Tbk (2016)

Recently, Bintaro Jaya has employed many strategies to keep the customer satisfaction. For example, Bintaro Jaya always keeps in touch with its customers through various media. This way, Bintaro Jaya is able to maintain its customers and to provide benefit for them continuously, consequently Bintaro Jaya manages to gain profit progressively. Table 1.3 displays that in 2013 to 2014 the number of drinking water customers was decreasing as many as 250 customers or 7 % from the whole. While in 2014 to 2015, the number of customers was increasing as many as 416 or 4% increasing. The raise in the number of customers may be resulted from the development of new cluster- Discovery and Kebayoran as many as 400 units of houses which get free drinking water installation.

Table- 3: **The Number of Active Customer of Drinking Water**

NO.	Sector	2013	2014	Up /Down	2015	Up /Down	%tase up /down 2014	%tase up /down 2015	Information
1	ALTHIA	180	181	1	183	2	1%	1%	Permanent
2	BINTARO II	685	689	4	688	(1)	1%	0%	Down
3	BINTARO III	683	675	(8)	670	(5)	-1%	-1%	Permanent
4	BINTARO IV	620	614	(6)	617	3	-1%	0%	Up
5	BINTARO IX	2706	2579	(127)	2574	(5)	-5%	0%	Up
6	BINTARO V	1256	1178	(78)	1191	13	-6%	1%	Up
7	BINTARO VI	221	221	-	218	(3)	0%	-1%	Down
8	BINTARO VII	551	552	1	508	(44)	0%	-8%	Down
9	PURI	1017	1007	(10)	1009	2	-1%	0%	Up
10	EMERALD	1146	1134	(12)	1135	1	-1%	0%	Up
11	SATELINDO	1240	1239	(1)	1256	17	0%	1%	Up
12	SENAYAN	169	164	(5)	169	5	-3%	3%	Up
13	GRAHA	1	0	(1)	0	-	-100%		Down
14	BINTARO IIIA	601	591	(10)	604	13	-2%	2%	Up
15	BINTARO VIII	228	226	(2)	224	(2)	-1%	-1%	Permanent
16	DISCOVERY	553	552	(1)	704	152	0%	28%	ST Cluster New Free pairs of water
17	KEBAYORAN	776	773	(3)	1040	267	0%	35%	ST Cluster New Free water tide
18	MAHAGONI	286	294	8	295	1	3%	0%	Down
	TOTAL.....	12,919	12,669	(250)	13,085	416	-7%	4%	

Source : PT Jaya Real Property, Tbk (2016)

In real estate business especially in dealing with the process of managing drinking water, marketing component is very influential in improving company performance. One of marketing component is *service quality*. Picture 1.1. illustrates kinds of customer's complains listed in Bintaro Jaya Management in 2013 to 2015. The complaints related to dirty water – murky and smelly. Also the complaint associated with pipe repairment- leaking, limited water supply or no water supply at all. The complain was significantly increasing in 2013 to 2014. However, the number of complain was slightly decreasing in 2015.

The research was conducted in PT Jaya Real Property, Tbk especially drinking water management Bintaro sector 7 – Bintaro Jaya. The data in table 1.4. shows that from 2013 to 2014 the number of drinking water customers was decresing as much as 2% but there was increasing in customers' numbers in 2015 as many as 3 % . With regard to the number of water use volume, the increasing numbers of customers means the improvement of water use volume. However, the gain of water use volume was not significant, as in 2013 to 2014 the number of customers were decreasing.

Table-4: **The Average Drinking Water Usage per-Year**

Data	2013	2014	Percentage of Increase	2015	Percentage of Increase
The number of customers	12,919	12,669	-2%	13,085	3%
Water usage (m3)	353,475	359,958	2%	366,270	2%
Average water usage	27 m3	28 m3		28 m3	

Source: PT Jaya Real Property, Tbk (2016)

In addition to testing the water quality, Bintaro Jaya management distributed quesstionaires about the service given , water supply, and water quality. Each quaetion in the quesstionaires provides 5 options showing the level of quality. 5 = Good, 4= satisfactory, 3 = Fair, 2= low, 1 = Bad. The result of questionnaires indicated that in 2013 the score was 3,81. It means the service, water supply, and water quality were fair enough by that time. Meanwhile in 2014, the score was 4.03 meaning that the customers felt satisfied with the service, water supply, and water quality managed by Bintaro Jaya Management.

The results of questionnaires revealed that the Customer Relationship Marketing provided by Bintaro Jaya was able to maintain Customers of Bintaro Jaya. The data above are similar with previous researches conducted by:

- Kai Kristensen & Jacob Eskildsen [1] and Runtunuwu *et al.* [2] The quality of goods and service have positive impact on Customers Satisfaction partially or simultaneously
- Padmavathy, M. S. Balaji dan V.J Sivakumar [3], Seyed Shahin Sharifi *et al.* [4], Mohammad Rizan *et al.* [5], Munir *et al.* [6] Customer Relationship Marketing (CRM) have positive influence on Customers Satisfaction.
- Min Zhang *et al.* [7], chaon wen *et al.* [8], Komwut *et al.* [9], Malik *et al.* [10], Hapzi Ali [11] the quality of Service has signifantly positive impact on Customers Satisfaction partially or simultaneously.

The purpose of the research

Based on the research questions, the research is intended to:

- Analyze the impact of goods quality on customers satisfaction of drinking water in Bintaro Jaya
- Analyze the impact of *customer relationship marketing* on customers satisfaction of drinking water in Bintaro Jaya
- Analyze the impact of service quality on customers satisfaction of drinking water in Bintaro Jaya
- Analyze the extend of goods quality, service quality, and *customer relationship marketing* simultaneously have impact simulataneously on customers satisfaction of drinking water in Bintaro Jaya

LITERATURE REVIEW

The Product Quality

Cannon [12] suggests that the product quality is the ability of the goods to fulfill the costumer' needs and expectation. The biggest challenge faced by a company to improve the quality of the goods is goods development.

According to Wijaya [13] product quality is the realibility of the goods and service to fulfill the needs, desire and expectations of its customers. The quality is based on the customers' actual experience in utilizing the goods or service and their opinion whether the service or goods is able to fulfill their needs, desire and expectations.

With refer to the definitions mentioned earlier, it can be concluded that product quality is the ability of a product to fulfill the needs of the customers. Wijaya [13] adds that the dimensions of product quality among others are reliability, confirmation of specification, working performance, goods features and aesthetics.

Customer Relationship Marketing

Customer Relationship marketing is a concept emerging in marketing literature in the recent decade. C*ustomer Relationship Marketing* is a process to identify, develop, maintain and end a particular relationship aimed to improve the working performance Palmatier [14].

Lovelock and Wright [15] define *Relationship Marketing* or relational marketing as the activity which emphasizes on long term customer retention and satisfaction with the budgets effective for maintaining mutual benefit between customers and the organisation.

Regarding the definition, the research formulates *Relationship Marketing as* a strategy to maintain long term relationship with customers to gain the profit of the company. Kottler and Amstrong [16] adds that *Customer Relationship marketing* is the process of developing and maintaining long term relationship with customers. Moreover, they suggest three approaches in *Customer Relationship Marketing*, it is to increase financial benefits, social benefits by personalizing and individualizing relationships with customers, and tighting the structural bounds.

The Service Quality

Lovelock [15] asserts that service quality is the expected quality and the control of the quality to fulfill customers' needs. Meanwhile Gronroos as cited in Ratminto [17] defines service quality as an activity or as series of invisible activities which take place as a result of interaction between customers and employees of company to solve the problems. Tjiptono [18] suggests five dimensions in service quality:

- *Tangibles* - Appearance of physical facilities, equipment, personnel, and ommunication materials.
- *Reliabiliy* - Ability to perform the promised service dependably and accurately. Consequently the company should be able to give service fast, consistent, reliable and accurate.
- *Responsiveness* - Willingness to help customers and provide prompt service.
- *Assurance* - Knowledge and courtesy of employees and their ability to inspire trust and confidence.
- *Empathy*, - Caring, individualized attention that the firm provides to its customers

Costumers Satisfaction

Kotler and Keller [19] contend that customers satisfaction depend on perceived performance of product value compares to customers' expectation. If the value of product performance is lower than the customers' expectation, consequently the customers will not feel satisfied. However, if the value of product performance can meet the customers' expectation, the customers will feel contented.

Rangkuti [20] defines customer's satisfaction as the consumer's response to the discrepancy between the level of importance prior before usage and the actual performance he perceived after usage.

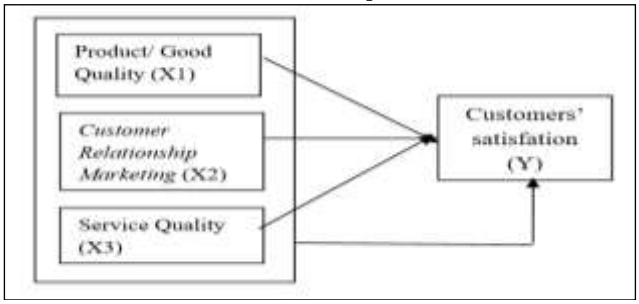
Customers Satisfaction is an approach as well as a dimension of service quality. Kotler & Keller [19] say that the one's feeling of happiness and dissapointment on the disrepancy between the products' performance and his expectation is the function of customer's satisfaction.

Research Framework

This research is designed to investigate whether there is any influence of product/ goods quality and service quality towards Customers Satisfaction partially or simultaneously: Kai Kristensen & Jacob Eskildsen [1] dan Runtunuwu *et al*. [2]

By this far Customer Relationship Marketing (CRM) has positive impact on Customers Satisfaction: Seyed Shahin Sharifi *et al*. [4], Mohammad Rizan *et al*. [5], Munir *et al*. [6]. Other Padmavathy, M. S. Balaji and V.J Sivakumar [3], researches also show significantly positive impact on service quality on Customers Satisfaction partially or simulatneously: Min Zhang *et al*. [7], chaon wen *et al*. [8], Komwut *et al*. [9], Malik *et al*. [10], Ali, Hapzi [11].

With refer to the research questions, the purpose of the research, literature review, previous researches and research road map, one year- research framework can be created as it can be found in the following picture 1:



Picture-1: **Research Framework**

Caption of the picture :X1 = Product Quality ; X2 =*Customer relationship Marketing*; X3 =Service quality ; Y= Customer's satisfaction

The research in review with customer's satisfaction formulates hypothesis as follows:

- H1:There is the significant influence of drinking water quality towards satisfaction of drinking water customer in Bintaro Jaya at PT Jaya Real Property, Tbk
- H2: C*ustomer relationship marketing* have impact on satisfaction of drinking water customer in Bintaro Jaya at PT Jaya Real Property, Tbk.
- H3:The drinking water service provided by Bintaro Jaya have impact on satisfaction of drinking water customer in Bintaro Jaya at PT Jaya Real Property, Tbk.
- H4:There is simultaneously influence of product quality, customers *relationship marketing* and quality of service on satisfaction of drinking water customer in Bintaro Jaya at PT Jaya Real Property, Tbk

RESEARCH METHODOLOGY

The research was caried out in PT. Jaya Real Property, Tbk. at the unit of Bintaro Jaya management located in Bintaro Trade Center, Block H4 No. 1-33, Jl. Jendral Sudirman, Pusat Kawasan Niaga, Sektor 7 – Bintaro Jaya. The research employed instrument in form of scale likert questionnaires. To fill in the questionnaire, the respondents were asked to respond each stetement by choosing one out of 5 options given. The options were as follows:

- Strongly agree (SS), scored 5 5
- Agree (S), equal to 4
- Neutral (N), the same as 3
- Disagree (TS), worth 2
- Completely disagree (STS), has the score of 1

METHOD AND ANALYSIS

The research utilized quantitatif method and the analyzing device was regression. The sampling technique being used was *Non Probability Sampling* and the research applied *Purposive Sampling method*, in which researcher with his own consideration, purposefully selected the sample conceived to be able to meet the research requirement. The sample of the research were those who buy and use drinking water provided by Bintaro Jaya management in the periode of October 2016. The sample taken was below the number of real population however it was assumed to be able to represent the real population.

In order to determine the number of the sample, the research used Slovin method, Umar [21]. So the number of sample taken was 389 sample.

REGRESSION ANALYSIS

Data analysis method used in this research was quantitative analysis method. Multiple Regressional Analysis was used to analyze the impact of service quality, *Customer Relationship Marketing*, and product quality on costumers satisfaction. The research utilised SPSS statistical program. The model of correlation between costumer satisfaction and service quality, *Customer Relationship Marketing*, and product quality can be arranged in ths following function or equation: $Y = b0 + b1X1 + b2X2 + b3X$.

Meaning of symbols: Y=costumers satisfaction; a=constanta; b=coeffisien; X1=service quality; X2=*Customer Relationship Marketing; and* X3=product quality**.**

Coeffisien of Determination (R2) is used to find out the accuracy of regression analysis, which is indicated by the magnitude of the determination coefficient (R2) between 0 (zero) and 1 (one).

F test is used to investigate the level of significance of the influence of independent variables towards the dependent variable. F- test is if the significant value of F lower than the alpha used (5%) then it can be said that variations of independent variables can explain the variation of bound variables in the model used, and vice versa if F is greater than the alpha used (5%).

- Ho is rejected if Sig F count/ obs < α (significant level used)
- Ho is accepted if Sig F count/ obs > α (significant level used)
  The significant level used in the analysis is 0,05 (5%).

T –Test. T test is used to investigate partially the impact of independent variables towards dependent variable in regression model given. The level of significance employed by this research was 5% (α = 0,05). The criteria for T test is as follows:

- Ho is rejected if Sig F $_{count/}$ obs < α (level of significant used)
- Ho is accepted if Sig F count/ obs > α (significant level used)
  T test is adopted to test the hyphothesis partially the correlation between X1 with Y, X2 with Y and X3 with Y.

RESULT AND DISCUSSION

Descriptive Analysis

Descriptive analysis portrays the obtained data. The description of data can act as reference to identify the data obtained. The characteristics of data involving mean, minimum, maximum and standard deviation. The following is the overview of the obtained data.

Table-5: **Descriptive Analysis Variable**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Product Quality (X1)	389	20,00	39,00	32,4524	3,93516
Customer relationship marketing (X2)	389	19,00	39,00	32,5656	3,64168
Quality of Service (X3)	389	25,00	48,00	40,0334	4,28873
Consumer Satisfaction (Y)	389	10,00	20,00	16,3882	1,98732
Valid N (listwise)	389				

Source: Primary data analysis (2016)

The Table above shows that the mean of customers satisfaction variable (Y) 16,3882 and the standard deviation is 1,98732. The mean of product quality variable (X1) is 32,4524 with the standard deviation score is 3,93516. The mean of *Customer relationship marketing* (X2) variable is 32,5656 and its standard deviation is 3,64168. The mean of service quality variable (X3) is 40,0334 and its standard deviation is 4,28873.

Validity

The followings is the result of validity test on questionnaires.

Table-6: **The result of Validity Test**

No	Item Question	r-value	Information
1	X1.1	,756**	Valid
2	X1.2	,757**	Valid
3	X1.3	,626**	Valid
4	X1.4	,716**	Valid
5	X1.5	,642**	Valid
6	X1.6	,662**	Valid
7	X1.7	,719**	Valid
8	X1.8	,675**	Valid
9	X2.1	,712**	Valid
10	X2.2	,697**	Valid
11	X2.3	,745**	Valid
12	X2.4	,651**	Valid
13	X2.5	,676**	Valid
14	X2.6	,668**	Valid
15	X3.1	,712**	Valid
16	*X3*.2	,722**	Valid
17	X3.3	,646**	Valid
18	X3.4	,641**	Valid
19	X3.5	,627**	Valid
20	X3.6	,599**	Valid
21	X3.7	,616**	Valid
22	X3.8	,585**	Valid
23	X3.9	,686**	Valid
24	X3.10	,639**	Valid
25	Y.1	,775**	Valid
26	Y.2	,753**	Valid
27	Y.3	,646**	Valid
28	Y.4	,666**	Valid

Source: Primary data anayzed (2016)

The validity tests revealed that all items in questionnaires were valid as the significant score from each item was less than 0,05 r count/ obs > r Table, the value of r-Table is 0,220 so the item was valid.

Reliability Test

The result of questionnaires can be seen in Table 7. as follows:

Table-7: Cronbach's Alpha

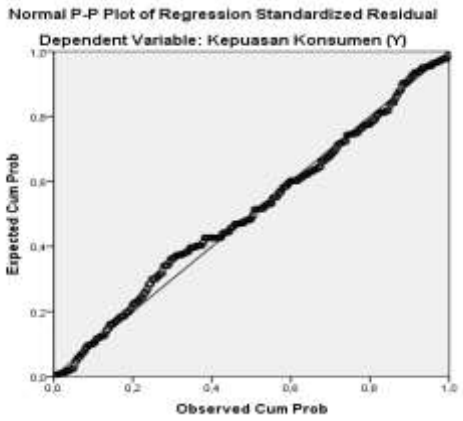
Variable	Cronbach's Alpha	Conclusion
Product Quality (X1)	,845	
Customer relationship marketing (X2)	,830	Reliable, score Cronbach's Alpha >0.60
Service Quality (X3)	,845	
Customers Satisfaction (Y)	,675	

Source: Primary Data analyzed (2016)

The above table display that all variables in this research has *Cronbach Alpha* > 0,60. It means all variable can be assumed as reliable and can be used in the research.

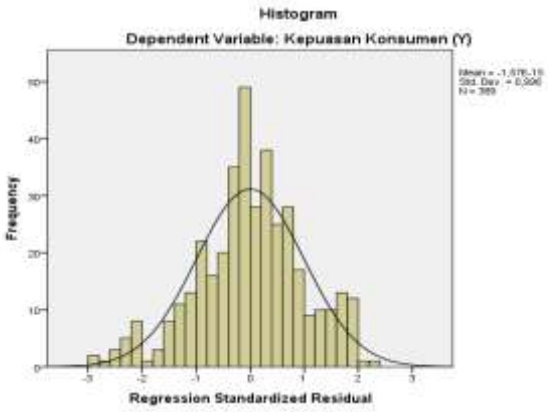
Normality Test

Normality test is used to see if the data used in the research is distributed normally. A good regression model has normal data distribution or close to normal,



Picture-2: **The Result of Normality Test**
Source: Primary Data analyzed (2016)

P-P Plot Diagram is a media used to check the normality of data. Normal distribution will form diagonally straight line and the plotting data will be compared to the diagonal line. It can be seen from picture 4.1. above that plotting data spread around diagonal line following the direction of the diagonal line. Therefore, it can be said that this regression model meet the requirement of normal assumption.



Picture-3: **Histogram Curve Model**
Source: Primary Data analyzed (2016)

The picture of histogram above presents bell – shaped curve which means that the data are normally distributed

To be more convincing, detecting data normality can be done through K-S Test by deciding the hypotheis first. In this research, the hypothesis is null hypothesis (H_0) which means the data are normally distributed. H_0 is accepted if the score of K-S test is bigger than significant probability at $\alpha = 5\%$.

Hypothsees:

H_0: The data are normally distributed

H_1: The data are not normally distributed

The Criteria for determining *Kolmogorov Smirnov* statistical test is:

If significant > 0,05 so The data are normally distributed

-If Significant < 0,05 so The data are not normally distributed

Table-8: **Kolmogorov-Smirnov test**

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		389
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	1,14587369
Most Extreme Differences	Absolute	,066
	Positive	,031
	Negative	-,066
Kolmogorov-Smirnov Z		1,311
Asymp. Sig. (2-tailed)		,064
a. Test distribution is Normal.		
b. Calculated from data.		

Source: Primary Data analyzed (2016)

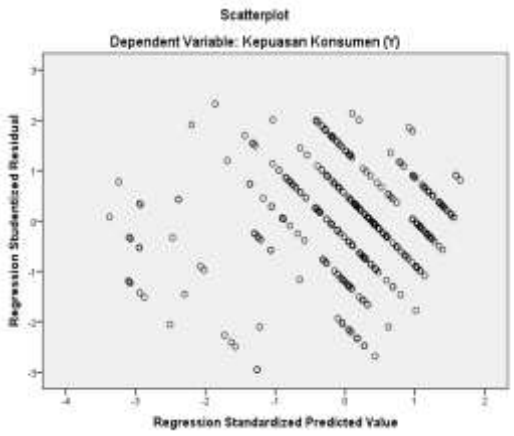
The result of the test pointed out that the score of Kolmogorov-Smirnov was 1,311 and significance score was 064. Considering that significance score of Kolmogorov-Smirnov was bigger than 0,05, the research concluded that the data were normally distributed.

Heteroscedasticity Test

Heterokedasiticity test is conducted to test the equality of varians in a one residual observation to other observations in a regression model. If there is equality between varian of one residual observation to other observation, so the model can be said as homokedasticity but if the result is in reverse, it is called heterocedastisity. A good regression should be homocedastisity.

The foundation of analysis

- If the dots form a specific pattern (wavy, wide and narrow at the end), it indicates heteroscedasticity.
- If there is no clear pattern and the dots scattered above and below 0 in Y axis, it can be said that heteroscedastisity doesnot take place.



Picture-4: **The Result of Heterocedasiticity**

Source: Primary Data analyzed (2016)

The picture exhibits *scatter plot* between SRESID and ZPRED. The plot was scattered and didnot have a specific pattern or spred above and below the zeros on the Y axis as well as on the right and left on the X axis. This finding indicated that there was not relationship between independent variables with residual values. It means the picture showed non-heteroskedastisitas regression model.

Multicolinierity

The followings are the result of multikolinierity test:

Table-9: **The Result Multicollinierity Test**

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Product Quality (X1)	,266	3,766
	Customer relationship marketing (X2)	,247	4,046
	Service Quality (X3)	,300	3,331
a. Dependent Variable: costumers (Y) Source : Primary Data analyzed (2016)			

Table displays that the value of VIF independent variable was below 10. It was product quality (X_1) = 3.766, *Customer relationship marketing* (X_2) = 4.046 and service quality (X_3) = 3.331. The data showed that regression model was free from multicollinierity. Therefore the picture can meet the assumption that the regression model was non multicollinierity.

REGRESSION COEFFISIENT ANALYSIS

The regression formula is as follows:

Table-10: **The Result of Regression Coefficients Analysis**

Model		Unstandardized Coefficients		T	Sig.
		B	Std. Error		
1	(Constant)	1,590	,566	2,812	,005
	Product Quality (X1)	,256	,029	8,883	,000
	Customer relationship marketing (X2)	,102	,032	3,156	,002
	Quality of Service (X3)	,079	,025	3,197	,002
Model Summery[b] : R Square = ,668					
F = 257,680, sig = ,000[b]					

Source: Primary Data analyzed (2016)

Referring to the table above, the research formulated regression equation as follows:$Y = 1.590 + 0.256\ X_1 + 0.102\ X_2 + 0.079\ X_3$.

Regression Coeffisien variable of product quality (X_1) was 25,6%. It means if the independent variables were fixed and the value of Product Quality increased 1 unit, then the value of Consumer Satisfaction would increase by 25.6%. In reverse, if other independent variables had fixed value and the value of Product Quality decreased 1 unit, then the value of Consumer Satisfaction variable would decrease by 25.6%. In this case, the influence of the Product Quality was directly proportional to the Consumer Satisfaction, which means if the Products quality increased, so the value of Consumer Satisfaction would also increase, or vice versa.

Regression Coeffision of *Customer relationship marketing* (X_2) variable was 10,2%. It means when *Customer relationship marketing* increased 1 unit while other independent variables had fixed value, the customers satisfaction also increased by 10,2%. In reverse, if other independent variables shared fixed value and the value of *Customer relationship marketing* decreased 1 unit so the customer satisfaction would also decrease by 10,2%. In other words, *Customer relationship marketing* variable was directly proportional with Customers Satisfaction.

Regression Coeffision of service quality (X_3) variable was 7,9%. It means when service quality experiences improvement as big as 1 unit while other independent variables had fixed value, the customers satisfaction would also increase by 7,9 % and vice versa. If other independent variables shared fixed value and the value of service quality decreased 1 unit so the customer satisfaction would also decrease by 7,9 %. In other words, service quality variable was directly proportional with Customers Satisfaction.

Determination Coeffisient

Determination Coeffisient (R^2) is used to measure to what extend regression line correspond to the actual data (goodness of fit). Determination Coeffisient (R^2) measures the percentage of total variations of the dependent variables Y described by the independent variables in the regression line. In this research, it was found that Determination Coeffisient (R^2) was 0.668 meaning that 66,8% of Consumer

Satisfaction (Y) could be explained by variable of Product Quality (X1), Customer relationship marketing (X2), Service Quality and the rest 33,2 % can be explained by other variables aside from the variables being used.

CORRELATION ANALYSIS

The following is the result of Coefficient Correlation Calculation of data from questionnaires which are analyzed using SPSS 21.0

		Product Quality (X1)	*Customer relationship marketing* (X2)	Quality of Service (X3)	Consumer Satisfaction (Y)
Product Quality (X1)	Pearson Correlation	1	,833**	,792**	,798**
	Sig. (2-tailed)		,000	,000	,000
	N	389	389	389	389
Customer relationship marketing (X2)	Pearson Correlation	,833**	1	,808**	,747**
	Sig. (2-tailed)	,000		,000	,000
	N	389	389	389	389
Quality of Service (X3)	Pearson Correlation	,792**	,808**	1	,724**
	Sig. (2-tailed)	,000	,000		,000
	N	389	389	389	389
Consumer Satisfaction (Y)	Pearson Correlation	,798**	,747**	,724**	1
	Sig. (2-tailed)	,000	,000	,000	
	N	389	389	389	389
**. Correlation is significant at the 0.01 level (2-tailed).					

Source: Primary data analyzed (2016)

The table shows that significance value between all independent variables X and customers'satisfaction was 0,000 less than significant level 5% (0,05). So the H0 was rejected. It implied that there were significantly positive correlations between each independent variable X and customer's satisfaction. the correlation analysis revealed that with the majority of Pearson Correlation value of > 0.6, the positive correlation could be classified as strong. The positive correlation means that the correlation between independent variable and customers satisfation is directly correlated.

Table-12: **Interrelated Correlation Matrix**

Variable	Dimension	Customers Satisfaction	
		Y.1	Y.2
Product Quality (X1)	X1.1	,662**	,358**
	X1.2	,541**	,439**
	X1.3	,476**	,463**
	X1.4	,475**	,463**
Customer relationship Marketing (X2)	X2.1	,615**	,301**
	X2.2	,344**	,734**
	X2.3	,249*	,368**
Service Quality (X3)	X3.1	,347**	,356**
	X3.2	,541**	,436**
	X3.3	,463**	,249*
	X3.4	,324**	,493**
	X3.5	,281*	,504**

Source: Primary data is processed (2016)

The data analysis carried out by the research is a good regression equation model. A good model of regression equation can meet the requirement of classical assumptions, among others: the data should be normal, free from multicolinearity, autocorelation, and heteroskedastisity, and the previous researches using this model have verified the reliabiliy of the model.

- ***The Impact of Product Quality to Customer Satisfaction***

  Based on the result of the data analysis, the research can say that product quality (X_1) has impact on Customers Satisfaction (Y). it was indicated by result of regression coefficient test on Product Quality variable (X1). The result of the test exhibited that the value of significance is 0.000 which is less than $\alpha = 0.05$. Therefore, H0 was rejected. Apparently, it could be concluded that product quality (X_1) has impact on Customers Satisfaction (Y).

- The Impact of Customer Relationship Marketing on Customers' **Satisfaction**

  Customer relationship marketing (X_2) has impact on Customers'satisfaction (Y). The test of regression coefficient on price variable (X_2)

indicated that the value of significance was 0.002 which is less than α = 0.05. Therefore, H0 was rejected. For that reason, it could be concluded that *Customer relationship marketing* (X_2) has impact on Customers Satisfaction (Y).

- ***The Impact of Service Quality to Customers Satisfaction***

  Service Quality (X3) has impact on Customers'satisfaction (Y). The test of regression coefficient on *Service Quality* (X3) demonstrated that the value of significance was 0.002 which is less than α = 0.05. For that reason, H0 was rejected. Therefore, it can be concluded that *Service Quality* (X3) has impact on Customers Satisfaction (Y).

- ***The Simultaneous Impact of Product Quality, Customer RelationshipMarketing and Service Quality on Customers Satisfaction.***

  Product Quality, Customer Relationship Marketing and Service Quality have simultaneous impact on Customers Satisfaction. The F-test exposed that the value of significance is 0.000 which is less than α = 0.05. For that reason, H0 was rejected. Therefore, it can be concluded that Product Quality (X_1), Customer Relationship Marketing (X_2), and Service Quality (X3) have simultaneously impact on Customers Satisfaction (Y).

Based on the results of Determination analysis, that customer satisfaction is influenced by many factors, apart from Product Quality, Customer Relationship and Service Quality. Customer satisfaction also impact on purchasing decisions, brand image, customer loyalty and so forth. This study is in line with previous research or supports existing theories based on the results of research from:

- Customer Satisfaction can be built from Quality of Service and Product Quality. Quality of Service and Product Quality positively and significantly influence Customer Satisfaction, either partially, simultaneously and either directly or indirectly, [22].
- Product, Price and Distribution Channel have positive and significant effect on Purchase Decision either partially or simultaneously on Mandiri e-Cash [23].
- Quality of Service and Accessibility have positive and significant influence on Customer Loyalty either partially or simultaneously (Ali, Hapzi, Hadibrata, B, *et al*., [24].

CONCLUSION AND SUGGESTIONS

Conclusion

Based on the findings, the research can withraw conclusion as follows:

- There is impact of product quality on the satisfation of drinking water customers of Bintaro Jaya in PT. Jaya Real Property, Tbk. The result of research revealed that through reliability and features dimensions, it could be figured out the positive impact of product quality directly and indirectly on customers satisfaction.
- There is impact of *Customer relationship marketing on* satisfaction of drinking water customers of Bintaro Jaya in PT. Jaya Real Property, Tbk. The result of research pointed out that the dominant factor in structural bound could create the positive impact of *Customer relationship marketing* directly and indirectly on customers satisfaction.
- There is impact of service quality on satisfaction of drinking water customers of Bintaro Jaya in PT. Jaya Real Property, Tbk. The result of the research figured out that realibility became the dominant factor to create positive impat of service quality on satisfaction of drinking water customers.
- The product quality, price and service quality simultaneously can influence the satisfaction of drinking water customers of BintaroJaya in PT. Jaya Real Property, Tbk. It means the all three variables need to be improved so that the satisfaction of drinking water customers in Bintaro Jaya can be increased.

Technical Suggestions

- In order to improve customers satisfaction especially customers' expectation, the service should meet the customer expectation and the process of enrollment and payment system should be facilitated. In addition, the company needs to check the availability of clean water and prevent the water indicator from damaged. In other words, it is necessary for the company to bear attention to product quality as it contributes the biggest impact to customer satisfaction among other researched variables.
- In order to improve customer satisfaction especially the customers' impression of competent staff and the customers feel satisfied with the way the staffs solve problems then the company needs to simplify the process of subscription and the process of payment. It indicates that company needs to bear attention to *Customer relationship marketing* as *Customer relationship marketing* has bigger impact on customer satisfaction than other researched variables.
- In order to meet the customers' expectation especially in terms of customers service, subcription and payment system, the company needs to improve the service quality by increasing the employees' responsiveness in serving the customers. In other words, a company is supposed

to increase service quality as it contributes bigger impacts than other researched variables.

Academic Suggestion

- For further research, It is suggested that independent variables besides product quality variable, price variable, and service quality variable be added.
- It is also recommended that further research use different technique of analysis, for example, utilizing SEM to investigate the correlation between each dimension and research variables so that it can be sorted from the dimension that greatest correlation with research variables to those with least correlation.

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