

# FACTOR ANALYSIS OF PT. GOJEK INDONESIA IN SOCIAL CRM THROUGH SOCIAL MEDIA

<sup>1</sup>FEONI YULIA, <sup>2</sup>TIARA PUTRI ANANDA, <sup>3</sup>NILO LEGOWO, \*<sup>4</sup>EMIL ROBERT KABURUAN

Information Systems Management Department, BINUS Graduate Program-Master of Information System Management, Bina Nusantara University, Jakarta 11480, Indonesia

E-mail: <sup>1</sup>feoni.yulia@binus.ac.id, <sup>2</sup>tiara.ananda@binus.ac.id, <sup>3</sup>nlegowo@binus.edu,

\*<sup>4</sup>emil.kaburuan@binus.ac.id

## ABSTRACT

The current business orientation has changed from product-oriented, to customer-oriented. Customers are very active in assessing various businesses that exist through various ways, including through social media. Seeing this phenomenon many companies have begun using social media to reach their customers. A connection with customers through social media must be supported by Social CRM. Social CRM is a business strategy to engage customers through social media by building their trust and loyalty. There is one company in Indonesia that is good in the application of CRM, namely PT. Gojek Indonesia. Gojek is a startup company which became the first startup in Indonesia that holds decacorn status. Gojek has made Twitter as a platform for social CRM. Application of social CRM is not that easy. Customers will be free to criticize and vent their emotions through social media. In this case, writers are interesting to find out the factors that are the strength of Gojek in carrying out Social CRM activities through social media Twitter. This research uses factor analysis techniques. The population used in this study are @GojekIndonesia's Twitter followers. The results showed that there are 2 new components that make up social CRM at PT. Gojek Indonesia. The first factor is the "customer hearing" which represents the factors of listening, embracing, greetings and responses. The second factor is "Serving Customer" which represents supporting, energizing and talking factors. Based on the loading factors, the main strength of PT. Gojek Indonesia in applying social CRM, is "Greetings". This shows that PT. Gojek Indonesia gives good Greetings to customers to make customers comfortable in communicating through social media. Then the other main strength of PT. Gojek Indonesia is "Supporting". This shows that PT. Gojek Indonesia routinely provides services to customers through social media so that they can be good in social CRM.

**Keywords:** *Social CRM, Customer Relationship Management, Factor Analysis, Twitter*

## 1. INTRODUCTION

The current business orientation has changed considerably from previous years. Initially the business was very product-oriented, how to provide the best quality of the product. At present the orientation has moved to customer orientation. Business benefits can be increased by customer-centric to face business competition [2].

Customer-oriented is not easy. Customers are currently very active and careful in assessing various businesses that exist through various ways, including one through social media. Dampak of social media continues to grow in the marketing and business [5].

In line with the increasingly expressive social media used by customers, the consumers can influence each other through their experiences and

comments. Seeing this phenomenon, many companies have begun to use social media to reach their customers. Through social media, companies can follow current customer trends and can also read the behavior of their customers. Through social media, companies can listen to complaints about their products and establish interaction with its customers, so it can improve the relationship with customers. Interaction is eventually will improve the relationship positive between the company and the customer. A connection with customers must be supported by the presence of a good Customer Relationship Management (CRM) stem.

Customer Relationship Management (CRM) is one of fields of science in IT and business. CRM is a combination of business processes and information technology whose purpose is to understand customers from various prospects to differentiate the company's products and services

competitively [7]. Commitment is one of the important factors in the implementation of CRM. The company is committed to the promises given to customers in maintaining good relations between the company and customers. CRM is needed for companies because to retain old customers requires lower costs, compared to the cost of getting new customers. Five times the cost is required to get one new customer rather than retaining people who are already customers [15]. According to [12], if a company wants to survive in the market, then the company must be able to manage good relationships with customers through CRM, by developing contact points, one of them using social media. The use of social media to current technological developments can lead to the development of CRM into Social CRM.

Social CRM is a business strategy for involving customers through social media to build trust and brand loyalty as a primary goal. Social CRM is the development of the concept of CRM. If traditional CRM focus to serve customers on an individual basis, through website and call center, then Social CRM focuses serve customers in groups/communities by communicating through the social media where control on customer relations, has shifted to the customer who has the power to influence others in their social media networks. According to [12], there are 4 Social CRM factors that become a benchmark for companies, namely Listening, Talking, Energizing, Supporting, and Embracing. Meanwhile, according to [17] factors Social CRM consists of Greetings, Conversation, Responses, and the Regular Service.

Through factors of these factors, the company can perform two-way communication with its customers as the basis for the implementation of CRM. With the aim that the formation of a more intense relationship, both companies and customers using social media. This is because social media is not limited by time and place, so this relationship can help the company's long-term marketing plan.

There is one company in Indonesia that is good in the application of CRM, the company is Gojek. Gojek is one of startup from Indonesia that serves transit through the services of motorcycles. In 2019, Gojek has succeeded in leaving the unicorn status and holding the decacorn status ("tekno.kompas.com", 2019). With this, Gojek became the first startup in Indonesia with decacorn status. According to CB Insights research institute in The Global Unicorn Club, Gojek's valuation has now reached the US \$ 10 billion and is ranked 19th globally.

With a very high company valuation, Gojek is still active to greet and hear the response or feedback from its users. In addition to providing a call center, Gojek also has its own social media account that is used to interact directly with customers. Gojekpun active in the media using social for the sake of promotion, marketing, conveys an information up for dealing with users, in regard to listening and responding to complaints. This is one of Gojek's efforts in increasing their brand awareness, through "publication". PT. Gojek Indonesia through social media publications, expanding information through various media about company activities or activities that are appropriate for the public to know [20].

Of the many social media used Gojek, Twitter is social media the most dominant use in developing communications and has an association with customers. This is evidenced by the achievement of Gojek as one of the top 10 Indonesian brands on Twitter in 2019 ("blog.twitter.com", 2019).

Twitter is an online social networking and microblogging service that allows users to send and read text-based messages. Currently Twitter has indeed become a platform for various brands to interact with consumers in realtime.

Gojek has made Twitter a platform for CRM social applications. Application of social CRM in PT. Gojek Indonesia itself certainly produces positive and negative impacts. Positive, Gojek can interact and touch directly with its users. But it is not independent of the consequences that have an impact on the company. Customers will be free to criticize and release their emotions and experiences through social media. Social media can be accessible to everyone makes other people who read such criticism could automatically searches getting its own views on criticism given. Giving this criticism is the one of collaborating factor where the interaction can lead to misunderstandings in receiving messages.

Based on the description above, it can be seen that the application of social CRM as one of the fields of science in IT and business is very important for the company. Therefore, it is necessary to know how companies can move from product-oriented or traditional CRM to social CRM, so that companies are able to compete amid the rapid development of various companies. And it has also been understood that the implementation of social CRM as a combination of business processes and information technology is not that easy in the midst of the

widespread use of information technology in the form of social media. It is necessary to find out what are the important factors to be considered or what are the factors that become the main force in the implementation of social CRM. So, writers are interested in conducting research to find out what factors are the strengths of PT. Gojek Indonesia as the first startup company in Indonesia with decacorn status in implementing Social CRM.

**2. LITERATURE REVIEW**

**2.1 Definition of Customer Relationship Management (CRM)**

CRM according to Paulus in [21] CRM is a strategy used to study the needs and nature of customers in order to make the relationship between the company and the customer closer. Another understanding of CRM is all marketing activities which aim to stabilize, develop, and maintain good relationships. [1]. Whereas in another understanding, CRM is a strategy that regulates the company's interaction with customers, clients and other sales prospects, which uses technology to organize, automate and synchronize business processes by building customer interface and management feedback [6].

**2.2 Purpose and Benefits of Customer Relationship Management (CRM)**

CRM aims to make the company better know the customer in detail and provide maximum service as needed. Activities of the CRM concept that can be carried out are as follows [4]:

- 1) Build a customer database
- 2) Create a profile of each customer
- 3) Analysis of profitability of each customer
- 4) Interaction with customers who are more targeted and customized.

The benefits of implementing CRM are [4]:

- 1) Increasing the number of customers
- 2) Companies can find out customer need
- 3) Can reduce operational risk
- 4) The company can analyze transaction data patterns
- 5) Knowing any discrepancies in every transaction

**2.3 Defenition of Social CRM**

Social Social CRM is a business trend that provides two-way communication between buyers and sellers through social media [13]. In another sense, Social CRM is a technique in the business world that connects social media with technology, activities and traditional CRM practices to improve customer service that can ultimately increase business profits [21].

Social CRM provides a concept for companies to continue to maintain their communication relationships with customers anytime and uninterrupted. Social CRM also helps companies to see the social influence of their customers, the social influence referred to here is about criticism and feedback given by customers on social media which then indirectly provides a personal perception for others who see the feedback.

**2.4 Difference between Traditional CRM and Social CRM**

Traditional CRM is based on an internal business operational approach. Whereas Social CRM is a combination of social media and CRM. From this, it can be noted that Social CRM is an extension of Traditional CRM.

Here are the basic differences between Traditional CRM and Social CRM Source [11]:

*Table 1: The Basic Different Between Traditional CRM and Social CRM*

Parameters	Traditional CRM	Social CRM
Roles	Customer service	All actors of the market engage
Function	Process-centric	Conversation-centric
Approach	Contact management	Community management
Channel	Well-defined	Dynamic and evolving
Value	Periodic connection with customer	Sustained customer engagement
Model	Simple transactions	Complex relation

Based on the exposure in Table 1, it can be seen that through Social CRM , companies and customers can get the following benefits:

- a. Companies can build long-term interactions and relationships with customers

- b. Business types can include business-customer, customer-customer and customer-prospectus
- c. Customers get the freedom to post on social media and the company is free to control it
- d. The company can be said to have received assistance from customers regarding product evaluation, service development and others

**2.5 Social CRM Factors**

Social CRM learns how to manage relationships with customers, listen to them, and adjust the business to maximize profits [3]. Social CRM is so valuable, but in its application managers often do not know the factors that are the strength of the company in implementing social CRM.

Following are the factors of social CRM [12]:

*Table 2: Social CRM Factors*

Social CRM Factors	Definition	Goals
Listening	Consistently listen to and observe customer opinions, responses and complaints on social media	Consistently listen to and observe customer opinions, responses and complaints on social media
Talking	Spread the message on social media	Delivering messages about new products can be done with two-way conversations with customers, not just one way.
Energizing	Attract new customers with promotions through brand ambassadors	Increase profits
Supporting	Provide service or assistance to customer problems related to products or services	Customers can participate in online assistance, to reduce the number of call centers
Embracing	Provide opportunities for customers to express their ideas in designing the best products	Product quality improvement based on customer recommendations

In other studies, the factors that can build social CRM are related to matters related to good communication with customers. The following are the social building factors of CRM [17]:

- a. Greetings  
Greetings will be the first impression that will determine the attitude and customer interest in the next conversation
- b. Conversation  
Two-way conversations on social media must be done by the company in short, easy to understand sentences
- c. Responses  
Responses is the response from the message received
- d. Regular service  
Take special time to interact and provide services to customers

Two theories that have been outlined will be adopted as material in this study. The two theories were adopted because they are by CRM social applications through social media and by the circumstances of the company being investigated. Based on these two theories, social CRM factors are consist of listening, talking, energizing, supporting, embracing, greetings, conversations, responses, and regular service factors. These factors are combined by researchers to further turn into research material in the following table 3:

*Table 3: Combination of Social CRM Factors*

Markerink (2016)	Setiawan & Insanaputra (2017)	The Combination
<ul style="list-style-type: none"> <li>• Listening</li> <li>• Talking</li> <li>• Energizing</li> <li>• Supporting</li> <li>• Embracing</li> </ul>	<ul style="list-style-type: none"> <li>• Greetings</li> <li>• Conversation</li> <li>• Responses</li> <li>• Regular service</li> </ul>	<ol style="list-style-type: none"> <li>1) Listening</li> <li>2) Talking</li> <li>3) Energizing</li> <li>4) Supporting</li> <li>5) Embracing</li> <li>6) Greetings</li> <li>7) Responses</li> </ol>

From Table 3, it can be seen that several factors resulting from the combination of the two theories, including listening, talking, energizing, supporting, embracing, greetings and responses. Researchers do not include the conversation and regular service factors, because the conversation is a two-way conversation on social media that has the same meaning as talking. Likewise with regular service which is the provision of services to

customers who have the same meaning as supporting.

## 2.6 Twitter

Twitter is an online social networking and microblogging service that allows users to send and read text-based messages. At this time Twitter has become one of the most widely used social media.

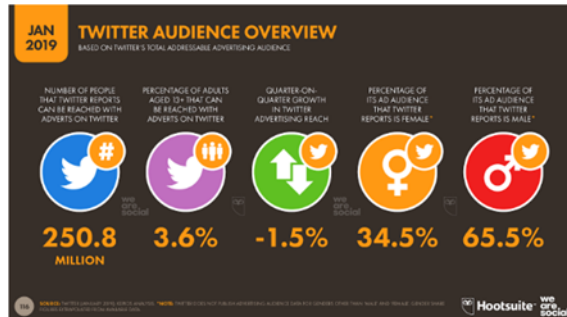


Figure 1: Twitter User

From Figure 1 we can see that according to data from We Are Social, the number of Twitter users in 2019 reached 250, 8 million users ("We Are Social", 2019). In addition, according to data from Kominfo in 2019, Indonesia was ranked 5th in the world's largest Twitter user ("Kominfo.go.id", 2019).

## 2.7 Previous Research

One related study was conducted by [18]. The study was conducted to analyze the effect of CRM on customer satisfaction and loyalty. The results show that CRM has a significant effect on customer loyalty and satisfaction. Other related research that has been done by [19]. The study was conducted to analyze an appropriate framework for implementing social CRM in social media. Besides, there is research by [20], it is a comparative study that discusses the comparison between CRM through social media and traditional CRM. From the research, they got that The main difference between traditional CRM and social CRM is the way the company works with customer data. Social CRM allows through various social platforms customers to actively participate in partnership with its suppliers.

The first study by [18] discussed traditional CRM. But as we can see, nowadays the company must move from traditional CRM to social CRM, so this research has an objective to discuss social CRM. While the research by [19] discussed about the implementation of social CRM on social media,

but we need to discuss more deeply about the application of social CRM in order to successfully provide more benefits to the company, so in this research we have an objective to find out what are the most influential factor in implementing social CRM. Then, the research by [20] that discussed about the comparison between CRM through social media and traditional CRM, has given us the knowledge about the difference between traditional CRM and social CRM, and after we know that how much social CRM is better than traditional CRM, in this study we set objective for examines the social success of CRM itself in the company.

## 3. RESEARCH METHODOLOGY

### 3.1 Types of Research

This type of research is descriptive research. Descriptive research is a form of research aimed at describing the events that exist, both natural and man-made events [9]. The method in this study is quantitative, where research focuses on numerical data that is processed with statistics.

### 3.2 Research Models

The research model is described in Figure 2, the factor analysis model. The form of this factor analysis model is a factor with two levels (second-order factor analysis). The measured variable is Social CRM measured by five factors, namely listening, talking, energizing, supporting, embracing, greetings and responses. Each of these factors is manifested into several indicators, in the form of items measuring it. For example, the listening factors is manifested into three indicators. Because the model has two factor levels, it is called the second-order factor analysis.

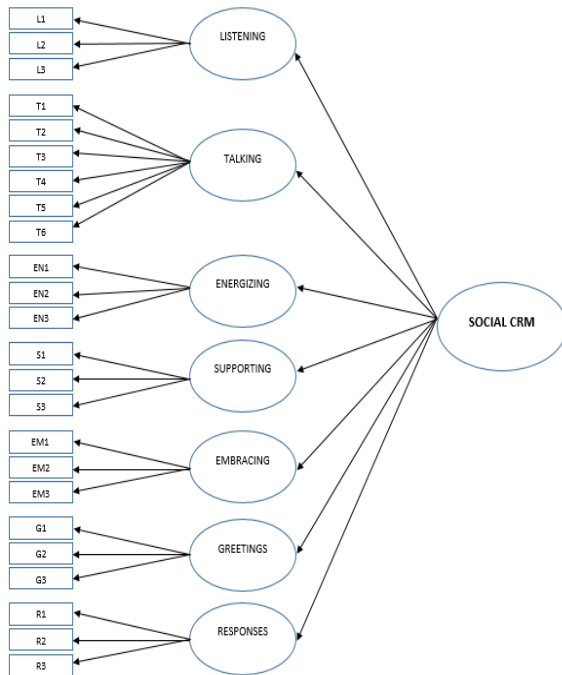


Figure 2: Factor Analysis Model

### 3.3 Operational Variable

An operational variable is an attribute of an object, activity or person that has certain variations determined by researchers to be observed and the results obtained [21]. In this study, there is 1 variable, namely social CRM which consists of 7 factors, namely listening, talking, energizing, supporting, embracing, greetings and responses.

Table 4: Operational Variable

No	Indicator	Code	Statement / Question	Reference
1	Easily accessible	L1	Easy Twitter account @GojekIndonesia	Markerink, F. (2016). A pattern based approach to examine the value of social CRM: an exploratory study. <i>Master of Thesis, University of Twente</i> , (May), 1–136.
	Easy to convey advice	L2	Followers can easily submit suggestions to the Twitter account @GojekIndonesia	
	The existence of an account makes it easy to ask questions	L3	The existence of a Twitter account @GranIndonesia facilitates the followers in asking questions.	

2	Spread the company's message	Q1	@GojekIndonesia spread messages about their company on Twitter	Markerink, F. (2016). A pattern based approach to examine the value of social CRM: an exploratory study. <i>Master of Thesis, University of Twente</i> , (May), 1–136.
	Promotion of products and services	Q2	@GojekIndonesia promotes products and services on Twitter	
	Interested in promotions	Q3	Followers are interested in promotions by @GojekIndonesia on Twitter	
	Time spent looking at promotions	Q4	Followers often spend time watching @GojekIndonesia promotions on Twitter	
	Two-way conversation	Q5	Followers participate in two-way conversations on Twitter @GojekIndonesia	
	Language is easy to understand	Q6	Twitter account @GojekIndonesia spreads messages and promotions in easy-to-understand language	
3	Promotion through brand ambassadors	EN 1	@GojekIndonesia cooperates with brand ambassadors in promotions on Twitter	Markerink, F. (2016). A pattern based approach to examine the value of social CRM: an exploratory study. <i>Master of Thesis, University of Twente</i> , (May), 1–136.
	Influenced by the promotion of brand ambassadors	EN 2	Followers are affected by promotions through brand ambassadors conducted by @GojekIndonesia	
	Mutual promotion	EN 3	Followers help introduce promotions by @GojekIndonesia to each other	
4	Provide problem solving	S1	PT. Gojek Indonesia routinely provides help solving	Markerink, F. (2016). A pattern based

			problems through the @GojekIndonesia account on Twitter	approach to examine the value of social CRM: an exploratory study. <i>Master of Thesis, University of Twente</i> , (May), 1–136.		Communication convenience	G3	Followers feel comfortable with the way @GojekIndonesia greets and communicates on Twitter	businesses in captivating the younger age market in Indonesia. <i>IC3K 2017 - Proceedings of the 9th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management</i> , 3 (Kmis), 167–173.					
	Support each other in problem solving	S2	Followers support each other and solve problems related to PT. Gojek Indonesia on Twitter											
	Participants discuss	S3	The number of followers participating in the discussion on the @GojekIndonesia Twitter account is quite high											
5	Freedom of conveying ideas	EM1	The existence of the Twitter account @GojekIndonesia gives flexibility to followers to give ideas related to the products or services of PT. Gojek Indonesia	Markerink, F. (2016). A pattern based approach to examine the value of social CRM: an exploratory study. <i>Master of Thesis, University of Twente</i> , (May), 1–136.	7	Respond to questions and suggestions	Q1	Twitter account @GojekIndonesia routinely responds to questions and suggestions given by followers	Setiawan, MA, & Insanaputra, YS (2017). Understanding the social CRM strategy of small businesses in captivating the younger age market in Indonesia. <i>IC3K 2017 - Proceedings of the 9th International Joint Conference on Knowledge Discovery, Knowledge Engineering and</i>					
	Working together in suggesting product or service improvements	EM2	Followers cooperate and discuss with each other in suggesting improvements to the product or service of PT. Gojek Indonesia											
	Consider the ideas given	EM3	The ideas given by the followers are considered and executed by PT. Gojek Indonesia											
6	Good Greetings	G1	@GojekIndonesia Twitter account gives good greetings on Twitter	Setiawan, MA, & Insanaputra, YS (2017). Understanding the social CRM strategy of small		Menanggapi pertanyaan dan saran dengan cepat	R2	Akun Twitter @GojekIndonesia menanggapi pertanyaan atau saran follower dengan respon yang cepat						
	Good language	G2	@GojekIndonesia uses good language to communicate on Twitter											

				<i>Knowledge Management</i> , 3 (Kmis), 167-173.
--	--	--	--	--------------------------------------------------

called primary data. Through questionnaires distributed, the information will be obtained that is relevant to the purpose of the study to be further processed by statistical processing.

### 3.4 Population and Sample

Population is defined as a generalization area consisting of objects/subjects that have certain characteristics determined by researchers to be studied and then the results are obtained [21]. The sample is part of the number and characteristics possessed by the population [21].

Based on the understanding that has been described, the population in this study is Twitter followers @GojekIndonesia as of January 17, 2020, which is 931,000 followers. Next, determine the number of samples to be examined by the Slovin formula, namely:

$$n = \frac{N}{1+(N.\alpha^2)} \quad (1)$$

Description:

- n = number of samples
- N = number of population
- α = error tolerance (%)

With a population of 931,000 and an error rate of 5 %, the sample size is as follows:

$$n = \frac{931.000}{1+931.000(0,05)^2} = 399,83 \approx 400$$

Based on these calculations, the number of samples to be examined in this study was 400 followers @GojekIndonesia.

### 3.5 Data Collection Methods

Data was collected using research instruments. The instruments used in this study are:

- a. Questionnaire method is closed, where the possible choice of answers has been determined in advance and respondents were not given alternative answers.
- b. The indicators for each variable are translated into several statements in order to obtain qualitative data. This data will be transformed into a quantitative form with a statistical analysis approach.

With the method of distributing the questionnaire, the data obtained for this research is

### 3.6 Validity and Reliability Testing

Validity and reliability tests are useful for testing research instruments to determine whether the instruments used are valid and reliable. By knowing the instruments used are valid and reliable, the results of the study will be valid and reliable. A valid and reliable research instrument is an absolute requirement to get valid and reliable research results [21]. This test was conducted using the Statistical Software Program of Social Science (SPSS) application version 25 for Windows.

#### 3.6.1 Validity Testing

Validity is the accuracy or accuracy of an instrument in measurement. In this study the validity test was conducted to measure the validity of a questionnaire. Each item (question or statement) on the questionnaire is said to be valid if it can express something that will be measured by the questionnaire

The validity test of this research uses the Pearson Product Moment correlation test, as follows:

$$r_{xy} = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n(\sum X^2) - (\sum X)^2][n(\sum Y^2) - (\sum Y)^2]}} \quad (2)$$

Description:

- $r_{xy}$  = correlation coefficient of an item / item
- n = number of subjects
- X = score of an item / item
- Y = total score

Tests using a two-tailed test with a significance level of 0.05. The testing criteria are as follows [22]:

- If the count  $r \geq r$  table (test 2 sides with sig. 0.05), the instrument items significantly correlated questions to score total (declared invalid).
- If  $r$  is count  $< r$  table (2-sided test with sig. 0.05) then the instrument or question items correlate significantly to the total score (declared invalid).

The statement is valid only if the value of R is bigger than R table (N = 25, R table = 0.396).



### 3.6.2 Reliability Testing

The reliability test is used to find out if a measuring instrument is consistent and reliable [10]. Consistency meant here is that if measurements are repeated, the results will remain consistent and reliable. In this study, tested whether each answer from someone in the questionnaire is consistent or stable over time.

The reliability test of this study used the Cornbach Alpha test, as follows:

$$r_{11} = \left[ \frac{k}{k-1} \right] \left[ 1 - \frac{\sum \sigma_b^2}{V_t^2} \right] \quad (3)$$

Description:

$r_{11}$  = instrument reability

$k$  = number of questions

$\sum \sigma_b^2$  = number of item variants

$V_t^2$  = total variant

Questionnaire is reliabel if the value of Cronbach's alpha coefficient above 0,6 or reliability coefficient ( $r_{11}$ ) > 0,6.

## 3.7 Data Analysis Techniques

### 3.7.1 Factor Analysis

Factor analysis is a statistical analysis that mitigates or reduce some of the variables that don't match with another and decreasing fewer the number of variables [8].

Factor analysis in this study was conducted to determine the factors that are the strength of PT. Gojek Indonesia in carrying out Social CRM activities through social media.

### 3.7.2 Stages of Factor Analysis

The stages of factor analysis are as follows [16]:

#### 1) Formulate the problem

This stage is the formulation of variables that will enter the analysis phase.

#### 2) Forming a correlation matrix

One of the conditions that must be met in factor analysis is that each factor to be analyzed must correlate with each other. This study uses KMO (KaiserMayer-Olkin) and Bartlett's Test of Sphericity measurements to see the adequacy of samples and correlations between

factors simultaneously, as well as the measurement of Anti Image Correlation Matrix with a base value of MSA (Measure of Sampling Adequacy) to see partial correlation between factors.

#### a. KMO and Barlett's Test of Sphericity

The criteria in the KMO and Barlett's Test are as follows:

- If the significant value <0.05, then the variables can be analyzed further
- If the significant value > 0,05, then the variable is not in PT. further analyzed

#### b. Anti Image Correlation Matrix

Anti Image is measured by the MSA base value. MSA figures range from 0 to 1, with the following criteria:

- MSA = 1, these variables can be predicted without errors by other variables
- MSA > 0.5, variables can still be predicted and can be further analyzed
- MSA <0.5, variables cannot be predicted and cannot be analyzed further or variables are excluded. Then repeated testing

### 3) Communalities

Communalities is the amount of variance (in percentage) of an initial variable that can be explained by existing variables. Communalities are used to see the correlation or relationship between the original variable and the formed variable. The greater the communalities, the more closely related the factors formed.

### 4) Factoring

Factoring is a core process in factor analysis. This process is used to determine the factors formed. In determining the new factors that are formed, it can be done by looking at the eigenvalue. Eigenvalue is the ability of each factor to represent the variables analyzed. Defensible factors have eigenvalue > 1. While factors that have eigenvalue <1 are not included in the model.

The factoring method used is Principal Component Analysis (PCA). PCA is a method in factor analysis that uses the total variance in its analysis. The total varians of a variable can be divided into three parts, namely:

- a. Common variance, i.e. variance divided by other variances
- b. Specific variance, that is, the variance associated with only certain variables.
- c. Error variance, the variance that is not in PT. explained through the process of correlation.

**5) Grouping and rotation factors**

Factor grouping is done to determine each initial variable into a new factor. Grouping these factors is done by looking at the resulting component matrix. The component matrix determines how many variables to be added that have been extracted into factors based on the optimal loading factor whose value is > 0.5. This loading factor will determine the loading factor that deserves to be considered with the criteria of statistical significance (the value of the collection > 0.5). the greater the loading factor, the more real these variables can be included in one of the factors and vice versa.

Then there is the factor rotation process. Factor rotation will make a large correlation value becomes larger and smaller correlation value becomes smaller. So that the difference in the value of correlation will be clearer. Factor rotation is used to overcome the following conditions:

- The difficulty in determining which variables will be included in one of the factors
- The factoring process produces only one factor
- A variable is doubtful about its eligibility to enter into a factor

Factor rotation can be done in several ways, as follows:

- Orthogonal rotation, which is rotating the axis 90 °. Orthogonal rotation

consists of quartimax, varimax and equa max

- Oblique rotation, rotating the axis to the right, but not necessarily 90 °. Oblique rotation consists of quartimin, biquartimin, covarimin and oblimin.

The rotation used in this study is the varimax rotation. The procedure of the Varimax method is to minimize the number of variables that have high loading on a factor (Purwaningsih, 2016).

**6) Labeling**

Labeling is the naming factor. After groups are formed which are the factors resulting from the factor analysis process, then the naming of factors is formed for the factors formed, which are considered to be able to represent all the variables that are members of these factors.

The naming is done based on the highest loading factor on each factor that has been formed. Naming factors can also be done through researcher judgment based on sub factors that are components in groups.

**4. RESEARCH RESULT**

**4.1 Validity Testing**

Data Validity Test is used to measure whether or not a questionnaire is valid. Where the overall research variables consist of 23 statements that must be answered by respondents. The significance test is done by comparing the value of r count with r table for degree of freedom (df) = n-2 with alpha 0.05, in this case n is the number of samples [5]. In this study to measure or determine the validity of this statement is if the correlation between each indicator to the total construct score shows a significant result with a significance level of 5 % with n = 400, then r table 0.098 .

Based on the analysis conducted, the results of testing the validity can be shown as follows:

*Table 5: Validity Testing Result*

Variabel	Statement Items	Pearson Correlation	rtabel	Information
Social CRM (Y)	Y_1	0,583	0,098	VALID
	Y_2	0,588	0,098	VALID
	Y_3	0,631	0,098	VALID
	Y_4	0,693	0,098	VALID

Y_5	0,651	0,098	VALID
Y_6	0,697	0,098	VALID
Y_7	0,625	0,098	VALID
Y_8	0,670	0,098	VALID
Y_9	0,756	0,098	VALID
Y_10	0,624	0,098	VALID
Y_11	0,699	0,098	VALID
Y_12	0,655	0,098	VALID
Y_13	0,677	0,098	VALID
Y_14	0,663	0,098	VALID
Y_15	0,712	0,098	VALID
Y_16	0,734	0,098	VALID
Y_17	0,677	0,098	VALID
Y_18	0,673	0,098	VALID
Y_19	0,702	0,098	VALID
Y_20	0,671	0,098	VALID
Y_21	0,728	0,098	VALID
Y_22	0,707	0,098	VALID
Y_23	0,722	0,098	VALID

#### 4.2 Reability Testing

Reliability Test is intended to determine the consistency of the measuring instrument in its use or in other words the measuring instrument has a consistent result if it is used multiple times at different times. Reability test uses the Cronbach alpha technique which affects the extent to which a measuring device can be trusted or relied upon. This means that the measurement results are still consistent or fixed as long as you can measure two or more of the same symptoms, using the same measurement tool. Good reliability coefficient values above 0.6 or more. Testing is done with SPSS version 25.0 for windows using the Cronbach alpha technique with the following criteria:

- a. If Cronbach alpha values > 0.6 then declared reliable
- b. If the Cronbach alpha value < 0.6, then declared not reliable

Based on the analysis conducted, the results of the test can be shown as the following table:

Table 6: Reability Testing Result

Variabel	Koefisien Cronbach Alpha	Number of Statement Items
Social CRM (Y)	0,946	23

Based on table 6 above it can be seen that the Cronbach alpha value is 0.946, where this value is greater than 0.6 so it can be concluded that all instruments in this study are reliable.

#### 4.3 KMO & Bartlett's Test

The KMO test and the Bartlett Test Sphericity are used to see the adequacy of the sample and the correlation between factors simultaneously. Criteria in the KMO test and the Bartlett Test Sphericity must have a KMO value  $\geq 0.5$  and a significance value  $< 0.05$ . If the KMO value is less than 0.5 and or the significance value is more than 0.05, then the study cannot be continued or factor analysis is not feasible. KMO test results and Bartlett Test Sphericity can be seen in the following table:

Table 7: KMO dan Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.861
Bartlett's Test of Sphericity. Approx Chi-Square	1699.230
df	21
Sig.	.000

Based on table 4.3 it can be seen that the KMO and Bartlett's test results are 0.861 with a significance of 0,000. This shows that the existing variables and samples can be analyzed further because the number (0.861) is already above 0.5 and the significance is below 0.05 ( $0.000 < 0.05$ ).

#### 4.4 Anti-Image Matrices

After the KMO test and Bartlett's Test, Anti Image Correlation measurements can then be seen which can be seen on Anti Image Matrices. Image Matrices are used to look at correlations between factors partially by taking into account the value of Measure of Sampling Adequacy (MSA), on the correlation number marked as (diagonal direction from top left to bottom right). MSA figures range from 0 to 1, with the following criteria:

- a. MSA = 1, these variables can be predicted without errors by other variables .
- b. MSA > 0.5, variables can still be predicted and can be further analyzed.

- c. MSA <0.5, variables cannot be predicted and cannot be further analyzed, or excluded from other variables.

The processed data using Anti-Image Matrices can be seen in Table 8 below:

Table 8: Anti-Image Matrices

	Variable	MSA
1	Listening	.846
2	Talking	.851
3	Energizing	.851
4	Supporting	.841
5	Embracing	.923
6	Greetings	.836
7	Responses	.877

Based on table 8, it can be seen that the MSA value for each factor is > 0.5, which means that each factor can be predicted and analyzed further.

#### 4.5 Communalities

Communalities are used to see the relationship between the originating variable and formed variable. In the communalities test, there is an extraction value that shows the contribution of each item to the new component formed and an initial value of 1,000 which shows the benchmark of the value generated in the communalities process in each factor. The greater the communalities of a variable, the more closely related to the new components that are formed. Test communalities can be seen in table 9 below

Table: 9 Communalities

Variable	Initial	Extraction
Listening	1.000	.738
Talking	1.000	.782
Energizing	1.000	.803
Supporting	1.000	.819
Embracing	1.000	.669
Greetings	1.000	.832
Responses	1.000	.758

Based on table 9 above, it is known that the greetings factor has the greatest value of 0.832 which means that around 83.2 % of the greetings variable variance can be explained by the new components formed. The listening factor has a value of 0.738 which means that around 73.8 % variant of the listening variable can be explained by the new components that are formed. And so on for other factors, provided that the greater the communalities of a variable means the more closely related to the new components that are formed.

#### 4.6 Factoring Process

The factoring process is used to determine the new components that are formed. The factoring process in this study uses the Principal Component Analysis (PCA) method by looking at the eigenvalue value. Components that have eigenvalue > 1 are those that can be maintained in the factor analysis model, if eigenvalue <1, then the components are not included in the model. The results of the factoring process can be seen in table 10 below

Table 10: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative	Total	% of Variance	Cumulative
1	4.240	60.577	60.577	4.240	60.577	60.577
2	1.160	16.574	77.151	1.160	16.574	77.142
3	.479	6.847	83.998			
4	.354	5.050	89.048			
5	.293	4.191	93.239			
6	.247	3.528	96.768			
7	.226	3.232	100.000			

In table 10 there are 7 variables included in the factor analysis, namely listening, talking, energizing, supporting, embracing, greetings, and responses.

Then the component ranges from 1 to 7 which represents the number of independent variables. The variance that can be explained by factor 1 is  $4.240/7 \times 100\% = 60.571\%$ . While by a factor of 2,  $1,160/7 \times 100\% = 16,571$ . And, the total of these two factors will be able to explain the variables of  $60,571\% + 16,571\% = 77,142\%$ . Thus, because the Eigenvalues value is set to 1, then the total value to be taken is > 1, which is the components 1 and 2.

While the component third until all seven are in total initial eigenvalues of less than 1, it means that the seven components are not used in calculating the number of components is formed.

#### 4.7 Grouping Factor (Factor Loading)

After the factoring process is carried out, the next step is to group the factors. Factor grouping is done to be able to determine each of the initial variables into the new component. The initial variable will be included in the components formed.

This grouping of factors is done by looking at the resulting component matrix

Component matrix aims to show the distribution of variables on components formed based on loading factors. The distribution of variables as criteria in the component matrix can be seen based on loading factors that have a correlation value > 0.5. The greater the loading factor, the more real the variable can be included in one of its components, and vice versa.

After knowing that the maximum factor that can be formed is 2, then the determination of each variable will be entered into factor 1 or factor 2. How to determine it is by looking at the following table 11:

Table 11: Component Matrix

Variable	Component	
	1	2
Listening	.698	-.501
Talking	.832	.300
Energizing	.727	.525
Supporting	.745	.514
Embracing	.813	-.091
Greetings	.809	-.421
Responses	.815	-.306

Based on table 11, it can be seen that the correlation between the independent variables and the factors to be formed is:

- a. Listening: Factor 1 correlation 0.698; Correlation factor 2 - 0.501
- b. Talking: Factor 1 correlation 0.832; Correlation factor 2 is .300
- c. Energizing: Factor 1 correlation 0.727 ; Correlation factor 2 0, 525
- d. Supporting: Factor 1 correlation 0.745; Correlation factor 2 0.514
- e. Embracing: Factor 1 correlation 0.813 ; Correlation factor 2 -0,091
- f. Greetings: Factor 1 correlation 0.809 ; Correlation factor 2 - 0.421
- g. Responses: Factor 1 correlation 0.815; Correlation factor 2 - 0.306

To clarify the factors that will enter into new factors, then see the following table 12

Table 12: Rotated Component Matrix

Variable	Component	
	1	2
Listening	.852	.107
Talking	.406	.758
Energizing	.176	.879
Supporting	.196	.883
Embracing	.658	.486

Greetings	.880	.241
Responses	.806	.330

The determination of variable input to certain factors is based on the large correlation between variables and factors, namely greater correlation. Thus the factors and variable members are:

Factor 1:

- 1) Listening
- 2) Embracing
- 3) Greetings
- 4) Responses

Factor 2:

- 1) Talking
- 2) Energizing
- 3) Supporting

The last step of the determining factor is to look at the table Component Matrix Transformation follows:

Table 13: Component Transformation Matrix

Component	1	2
1	.733	.680
2	-.680	.733

Both Factor 1 or Factor 2 have a correlation of 0.733, which means it is quite strong because of  $0.733 > 0.5$ . Thus Factor 1 and Factor 2 can be said to be appropriate to summarize the 7 independent variables.

#### 4.8 Naming Factors (Labelling)

After the grouping factor, the next step Adala h does the naming process factors (labeling), which gives the name of the new component is formed and is considered to represent the variables in it. Based on the results of data processing Total Variance Explained (Table 10 ), it can be seen that from the 7 existing initial factors, formed 2 new components.

In the previous analysis it has been found that there are 2 new factors formed, namely:

Factor 1:

- 1) Listening
- 2) Embracing
- 3) Greetings
- 4) Responses

Factor 2:

- 1) Talking
- 2) Energizing
- 3) Supporting

Factor 1 consists of listening, embracing, greetings, and responses. This factor is a factor related to how the company is able to listen to customers with a good attitude and accommodate all ideas, complaints and income from customers. Factor 1 can be named "Hearing Customer". While the second factor is the things companies do about spreading promotional messages and providing services to customers online. So the second factor can be named "Serving Customer".

**4.9 Analysis of Research Result**

Based on the results of data processing KMO and Bartlett's Test can be known, the resulting KMO value shows a figure of 0.861 ( greater than 0.5) with a significance value of 0.000 (less than 0.05), meaning that the variables and samples in this study can be analyzed further by using factor analysis.

Then, based on Anti Image Matrices data processing results it can be seen that the MSA value (diagonal number on Anti Image Correlation) > 0.5. This shows that each factor used in this study can be predicted and analyzed further.

The selected factors are then extracted to form new components. The results showed that there were two components formed from the factor analysis process. These components are named "Hearing Customer" and "Serving Customer". The interpretation of component names is based on the factors that enter into each new factor of the new components that are formed.

Following is a description of the factors for each new factor formed:

- 1) The first new factor is "Hearing Customer". Figure 3 is a picture of the factors that build these new factors.

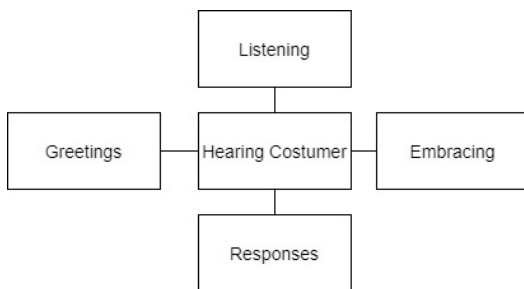


Figure 3: "Hearing Customer" Indicators

The following is a description of the factors that are included in the new factor "Hearing Customer":

- a. Listening = the company consistently listens and observes the opinions, responses and complaints of customers
  - b. Embracing = the company provides opportunities for customers to express their ideas
  - c. Greetings = Greetings will be the first impression that really determines the attitudes and interests of customers in subsequent conversations
  - d. Responses = The company responds to opinions, complaints and ideas submitted by customers
- 2) The second new factor is "Serving Customer". Figure 4 is a description of the factors that build these new factors.

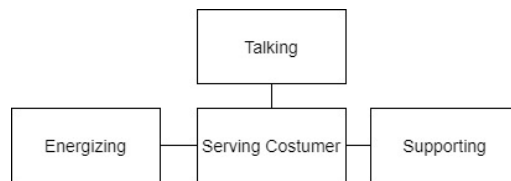


Figure 4: "Serving Customer" Indicators

The following is a description of the factors that are included in the new factor "Serving Customer":

- a. Talking = the company delivering messages about new products on social media
- b. Energizing = the company offers promotions through brand ambassadors
- c. Supporting = the company provides service or assistance on customer issues online

For each factor, several indicators that can be sorted by factors with the highest loading factor to the factor with the lowest loading factor. For the "Hearing Customer" factor, there is a sequence of factors with the highest to lowest loading factors: Greetings at 0.880%, Listening at 0.852%, Responses at 0.806%, and finally Embracing at 0.658%. For the "Serving Customer" factor, there is a sequence of factors with the highest to lowest loading factors: supporting 0.883%, energizing 0.879%, and finally talking at 0.758%.

For the "customer hearing" factor, the following is a discussion of each indicator in the highest to lowest order:

- 1) Greetings factor

This factor shows the extent to which companies can create customer interest so they remain comfortable delivering messages and having conversations through social media (social CRM). Greetings carried out by way of giving good greetings and good language in social media. Based on respondents, PT. Gojek Indonesia has successfully demonstrated good Greetings in communicating with customers and giving customers a comfortable feeling to have a conversation. This is in line with the statement of [17] that in establishing a relationship, a company must be able to give good greetings to form a first impression that gives customers an interest to have a conversation

#### 2) Listening Factor

The listening factor is the second factor chosen by consumers. This factor expresses the importance for companies to consistently listen and observe the opinions, responses and complaints of customers. Respondents agree that the @GojekIndonesia Twitter account is easily accessible and the existence of the account makes it easy for them to submit questions and suggestions. This is comparable to the statement of [12] that it is important to be able to consistently listen to customers, this is accommodated in the presence of easily accessible social media .

#### 3) Responses Factor

The responding factor is the third factor chosen by consumers. This relates to the statement of [17] which states that companies must always be connected and respond to customers, wherever and whenever quickly. In this case, PT. Gojek Indonesia provides social media Twitter to be closer to customers, because it is active for 24 hours non-stop. The results showed that the response received by consumers was considered successful in maintaining relationships with customers because the Twitter account @GojekIndonesia routinely responds to questions and suggestions given with a fast response. This is also evidenced by the achievement of Gojek as one of the top 10 Indonesian brands on Twitter in 2019 ("blog.twitter.com", 2019). Respondents agree that responding to consumers quickly will reduce the bias that will or is happening.

#### 4) Embracing Factor

Embracing factor is the last factor chosen by consumers. Providing opportunities for customers to express their ideas is indeed one way to establish good relations with customers. As described in [12], providing opportunities for customers to express their ideas in designing the best products will have a good effect on establishing social CRM. However, not all respondents agreed or

were interested in conveying ideas or discussing in suggesting an improvement in products or services from PT. Gojek Indonesia on Twitter.

Next to the "serving customer " factor , the following is a discussion of each indicator in the highest to lowest order:

#### 1) Supporting Factors

Supporting is fundamental in the social CRM application. This is consistent with that presented by [12] that supporting is an important factor where supporting related to the provision of services or assistance to customer's problem about their product or service . Supporting is an indicator with the highest loading factor for the "serving customer" factor . This shows that PT. Gojek Indonesia often provides help solving problems through a Twitter account . Based on the results of the study, it can be understood that the customer strongly agrees that @GojekIndonesia routinely provides problem solving assistance through the social media Twitter and each follower also supports and discusses each other in problem solving .

#### 2) Energizing Factor

Energizing is the way that PT. Gojek Indonesia in attracting new customers through promotions through ambassadors. The results of this study indicate that the energizing factor for customers has succeeded in influencing them with promotions through various ambassadors and among customers as well as introducing promotions to each other by @GojekIndonesia. This is also supported by the results of research by [12] which states that in social CRM it is necessary to attract new customers through promotions through brand ambassadors that will ultimately increase profits.

#### 3) Talking Factor

The last factor chosen by respondents is the talking factor with the lowest value. This shows that PT. Gojek Indonesia has often been promoting and delivering messages about new products on social media. However, not all respondents are interested in promotions and participate in two-way conversations on Twitter related to the promotion.

Based on the results of the analysis described above, it can be seen that the main strength of PT. Gojek Indonesia in the implementation of social CRM for every new factor that is formed. For the "customer hearing " factor, the factor that is the main force is "Greetings". This shows that in establishing a relationship, PT. Gojek Indonesia is able to provide a good Greetings to form a first

impression that gives interest to the customer to have a conversation. With this, customers remain comfortable conveying messages and communicating through social media.

As for the new "serving customer" factor, the factor that is the main force is "Supporting". This shows that PT. Gojek Indonesia routinely provides services or assistance to customer problems through social media Twitter.

In conclusion, PT. Gojek Indonesia makes the Greetings and Supporting factors the most powerful factor in building relationships with customers through social CRM activities.

#### 4.10 Difference from Previous Work

This research has succeeded in describing the results under the research objectives stated at the beginning of the section. Where the results of the study have differences with previous studies. For example in research by [18] which only discusses Customer Relationship Management. In this research, it is discussed the effect of applying CRM to customer satisfaction and loyalty. While this research has moved from traditional CRM to social CRM. The results of this study can be used by various companies as new solutions to compete in the current customer-oriented business era.

Meanwhile, previous research conducted by [19] has analyzed an appropriate framework for implementing social CRM on social media. This study discusses the implementation of social CRM on social media, but in this study we seek to find out more deeply and in detail about what factors are most influential in implementing social CRM. So knowing these important factors is expected to give the company a more detailed benchmark in carrying out activities in social CRM.

Then, research by [20] has discussed the comparison between CRM through social media and traditional CRM. From these studies it can be learned that the difference between social CRM and traditional CRM is the way companies work with customer data. Where Social CRM allows through various social platforms customers to actively participate in partnerships with their suppliers. After we know that how much social CRM is better than traditional CRM, in this study we analyze the social success of CRM itself in the company.

Meanwhile, the results of this study are still inseparable from various shortcomings. This study uses factor analysis, so there is high subjectivity in determining the number of factors that will enter the analysis phase. Likewise the interpretation of each of these factors also has a high subjectivity.

Responding to the shortcomings of the analysis using factor analysis techniques, then in future studies it is recommended to develop advanced analysis techniques with more complex data analysis techniques, such as path analysis. Besides, further research is expected to use factors from different sources from this study that use 7 factors from 2 sources of reference, to enrich knowledge in the application of social CRM.

## 5. CONCLUSION

### 5.1 Conclusion

Based on the discussion of research results that have been described previously regarding the strength factor analysis of PT. Gojek Indonesia in implementing social CRM through Twitter social media, the following conclusions are obtained:

#### 1) Data Eligibility Test

Based on validity testing, all of the Pearson correlation value of statement items are more than  $r$  table (0.098), so that all of the research variables are valid. Based on the reliability testing, the Cronbach alpha value is 0.946, where this value is greater than 0.6 so it can be concluded that all instruments in this study are reliable. Based on the KMO % Barlett's Test, the existing variables and samples can be analyzed further because the number (0.861) is already above 0.5 and the significance is below 0.05 ( $0.000 < 0.05$ ). And the last, based on the Anti-Image Matrices, the MSA value for each factor is  $> 0.5$ , which means that each factor can be predicted and analyzed further.

#### 2) CRM social factors of PT. Gojek Indonesia

Based on the results of factor analysis, there are 2 new components that make up social CRM at PT. Garuda Indonesia. The first new factor is the "customer hearing" which represents the factors of listening, embracing, greetings and responses. The second new factor is "Serving Customer" which represents supporting, energizing and talking factors.

#### 3) The most dominant factor in social CRM activity of PT. Gojek Indonesia

Based on the loading factors generated for all the existing factors, the main strength of PT. Indonesia's goal for the "hearing customer" factor is "Greetings". This shows that PT. Gojek Indonesia gives good Greetings to customers to make customers comfortable in communicating and having conversations through social media. As for the new factor "serving customers", the main strength of PT. Gojek Indonesia is "Supporting".



This shows that PT. Indonesia Gojek routinely provides services or assistance to customers through social media.

## 5.2 Suggestions

Based on the conclusions that have been raised, the author gives some suggestions and feedback are expected to be useful and could be a consideration for the progress of the company in the future will come associated with the implementation of the social CRM as follows:

### 5.2.1 Suggestion for Companies

- a. Companies should pay attention to the seven social CRM factors , namely: greeting, listening, responses, talking, embracing, energizing and supporting , remembering from the results of the study shows that these factors are the strength of social CRM in establishing relationships with potential customers to customers.
- b. The company should pay more attention and improve the greetings and supporting factors in carrying out social CRM activities , considering that this factor is the most dominant and crucial factor in establishing good relations with potential customers, consumers, and customers to maintain it. For the factor that got the lowest response, namely the embracing and talking factors , PT. Gojek Indonesia to be able to create conversations that can invite followers to be able to share ideas and suggestions to the company and make improvements in the delivery of messages and promotions through Twitter social media.

### 5.2.2 Suggestions for Future Researchers

- a. In this study, the authors use 7 factors from 2 different sources. It is hoped for further research to be able to use factors from different sources, to enrich the research results.
- b. This research uses factor analysis techniques. For further research, it is recommended to develop advanced analysis techniques with even more complex data analysis techniques , such as path analysis
- c. Conducting research in other similar companies, so that research results can be made into comparisons

## REFERENCES:

- [1] Alrubaiee, Laith. (2012). Exploring the Relationship between Ethical Sales Behavior, Relationship Quality, and Customer Loyalty. *International Journal of Marketing Studies*. 4. 10.5539/ijms.v4n1p7.
- [2] Bonacchi, M., & Perego, P. (2011). Improving profitability with customer-centric strategies: the case of a mobile content provider. *Strategic Change*, 20(7–8), 253–267. onacchi, M., & Perego, P. (2011). Improving profitability with customer-centric strategies: the case of a mobile content provider. *Strategic Change*, 20(7–8), 253–267. <https://doi.org/10.1002/jsc.899>
- [3] Elena, C. A. (2016). Social Media – A Strategy in Developing Customer Relationship Management. *Procedia Economics and Finance*, 39(November 2015), 785–790. [https://doi.org/10.1016/s2212-5671\(16\)30266-0](https://doi.org/10.1016/s2212-5671(16)30266-0)
- [4] Fauzi, Ahmad dan Harli, Eko. 2017. “Rancang Bangun Sistem Informasi Akademik Berbasis SMS Gateway dengan Metode Rapid Application Development”. in University Research Colloquium (URECOL), Hal. 81-86.
- [5] Grizane, T., & Jurgelane, I. (2016). Social Media Impact on Business Evaluation. *Procedia Computer Science*, 104(December 2016), 190–196. <https://doi.org/10.1016/j.procs.2017.01.103>
- [6] Hasibuan, Malayu. 2012. “Manajemen Sumber Daya manusia”. Jakarta: PT Bumi. Aksara.
- [7] Indra, D. (2019). Penerapan Customer Relationship Management (Crm) Pada Lembaga Perguruan Tinggi. *Journal of Information and Modeling*, 53(9), 89–99.
- [8] Lina, N. P. I. M., & Silvianita, A. (2018). Analisis Faktor-Faktor Penentu Employee Engagement di PT. Inti Bandung (Jawa Barat). *Jurnal Pendidikan Ekonomi*, 5(3), 3745–3750.
- [9] Linarwati, M. dkk. (2016). Studi Deskriptif Pelatihan Dan Pengembangan Sumberdaya Manusia Serta Penggunaan Metode Behavioral Event Interview Dalam Merekrut Karyawan Baru Di Bank Mega Cabang Kudus. *Journal of Management*, 2(2), 1–8. <https://doi.org/10.1016/j.bpc.2013.02.004>
- [10] Lumanasari, D. (2019). Analisa kepuasan pelanggan terhadap kualitas layanan bengkel dengan metode qfd ( quality function deployment ) di PT. . Citra cakra persada honda JEMURSARI Ditahestimey Lukmanasari Dyah Riandadari Abstrak. *Jurnal Pendidikan*

- Teknik Mesin*, 08(01), 103–110.
- [11] M. Olszak, C., & Bartu?, T. (2013). Multi-Agent Framework for Social Customer Relationship Management Systems. *Issues in Informing Science and Information Technology*, 10, 367–387. <https://doi.org/10.28945/1817>
- [12] Markerink, F. (2016). A pattern based approach to examine the value of social CRM: an exploratory study. *Master Thesis, University of Twente*, (May), 1–136.
- [13] Paliouras, K., & Siakas, K. V. (2017). Social Customer Relationship Management: A Case Study. *International Journal of Entrepreneurial Knowledge*, 5(1), 20–34. <https://doi.org/10.1515/ijek-2017-0002>
- [14] Purwaningsih, A. (2016). Penentuan Rotasi Yang Sesuai Dalam Analisis Faktor Dengan Analisis Procrustes. *Pusat Pengembangan Teknologi Informasi Dan Komputasi - BATAN*, 11(3), 101–103.
- [15] Ratnasari, R. T., & Aksa, M. H. (2011). *Manajemen Pemasaran Jasa*. Bogor: Ghalia Indonesia.
- [16] Santoso, S. (2018). Konsep dasar dan aplikasi SEM dengan amos 24. Elex Media Komputindo.
- [17] Setiawan, M. A., & Insanaputra, Y. S. (2017). Understanding the social CRM strategy of small businesses in captivating younger age market in Indonesia. *IC3K 2017 - Proceedings of the 9th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management*, 3(Kmis), 167–173. <https://doi.org/10.5220/0006504601670173>
- [18] Setyaleksana, B. Y., Suharyono, S., & Yulianto, E. (2017). Pengaruh Customer Relationship Management (Crm) Terhadap Kepuasan dan Loyalitas Pelanggan (Survei pada Pelanggan GraPARI Telkomsel di Kota Malang). *Jurnal Administrasi Bisnis SI Universitas Brawijaya*, 46(1), 45–51
- [19] Prasetyo, K. W. (2013). Penetapan Kerangka Kerja Social CRM Berdasarkan Karakteristik Media Sosial. *SMATIKA Jurnal*, 03(01), 37–41. Retrieved from <https://docs.google.com/uc?export=download&id=0BydotwQXAxQvamE2Skxfc0t0a0U>
- [20] Kubina, M., & Lendel, V. (2015). Successful Application of Social CRM in The Company. *Procedia Economics and Finance*, 23(July), 1190–1194. [https://doi.org/10.1016/s2212-5671\(15\)00487-6](https://doi.org/10.1016/s2212-5671(15)00487-6)
- [21] Sugiyono. (2014). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta
- [22] Tahendrika, A. (2015). Pengguna Motor Suzuki Pada Bengkel PT. Sinar Galesong Pratama Makassar. *Jurnal Ekonomi, Manajemen Dan Perbankan*, 1(Kualitas Layanan Service), 85–99.
- [23] Wahid, U., & Puspita, A. E. (2017). Upaya Peningkatkan Brand Awareness PT. Go-Jek Indonesia Melalui Aktivitas Marketing Public Relations. *Jurnal Komunikasi*, 9(1), 31. <https://doi.org/10.24912/jk.v9i1.265>
- [24] Yawised, K., & Marshall, P. (2015). Social CRM: A Review of the Literature and the Identification of New Research Directions.
- [25] *International Journal of Virtual Communities and Social Networking*, 7(1), 14–20. <https://doi.org/10.4018/IJVCNS.2015010102>