

# Psychological Effect of Communication Skills on Customer Retention: Evidence from Supply Chain Process of Indonesian Electronic Companies

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**Abstract----** Purpose of this study is to investigate the psychological effect of communication skills on customer retention (CR) with mediating role of customer satisfaction (CS) and customer loyalty in supply chain process of electronic companies. Number of studies studied the phenomena of CR; however, it is not studied with the help of psychological effect of communication skills. Moreover, the supply chain procedure of electronic companies is not discussed by the previous studies. Hence, this study is an attempt to fill this literature gap by examining the relationship between psychological effect of communication skills, CS, customer loyalty and CR to investigate supply chain process. This study focused on electronic companies of Indonesia. Therefore, a survey was carried out among these companies. Data were obtained from the customers of Indonesian electronic companies. 600 questionnaires were distributed among the customers. It is evident from the results that psychological effect of communication skills has important contribution to the CR to enhance supply chain process. Positive psychological effect of communication skills has the ability to increase CR, however, negative psychological effect of communication skills has the ability to decrease CR.

**Keywords----** *Psychological effect, Supply chain, Communication skills, Customer satisfaction, Customer loyalty, Customer retention.*

## 1. Introduction

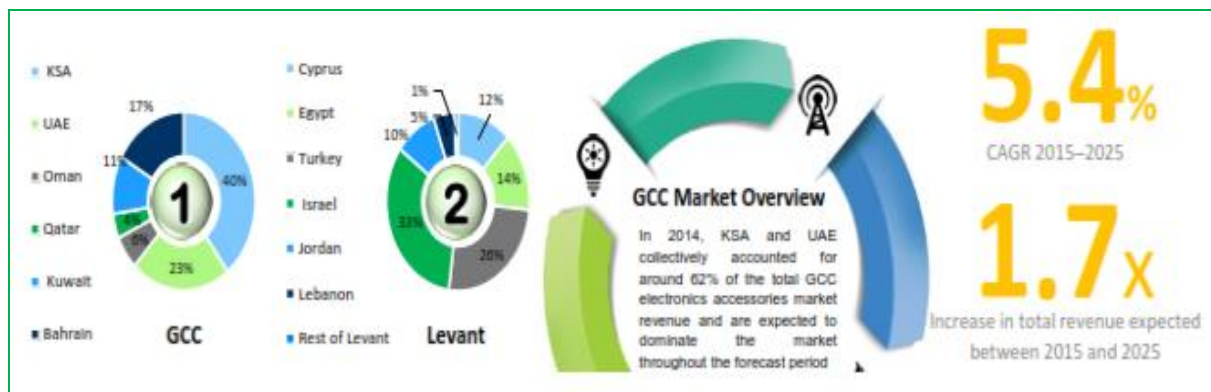
Supply chain process has central role among the organizations because it shows significant influence in company operations [1]. Customer retention (CR) is one of the important phenomena among the organizations [2]. Generally, the organizations have great concerned towards CR, as the customers always have major role in organization success. Every organization want to maximize CR to earn higher profit. Satisfied customer always leads to organizations towards success [3]. However, a dissatisfied customer contributes to the failure of the organizations. That

is the reason companies always try to satisfy their customers.

In a competitive environment, survival of business is based on the customers. Those businesses which focus on customer satisfaction (CS) generally remain successful. Number of studies proved that CR is most important [4, 5]. In this market, due to the competition, it is really tough to increase the satisfaction level of customers because in high competition various companies provide quality services and try to capture the customers. Quality services require good supply chain process. Customer is also quality orientated and want high quality from the organizations and business have to provide this quality to survive. Therefore, CR is most important form companies.

However, CR is much tough for companies due to the higher competition. As it mentioned by Ciunova-Shuleska, et al. [6], CR is a challenge for companies. Generally, customers shift from one company to another company to find better quality. In this way they stick with the company which provide higher quality. That is why it is important for companies to provide higher quality and retain the customers. It is crucial because the success of the company or any business is heavily based on the CR [7, 8] which is linked with CS and customer loyalty.

Particularly, in the Indonesian electronic companies, this issue is increasing which can be resolved with better supply chain. These electronic companies are facing number of issues related to the customers [9] which requires significant attention by the management. Success in the business is always important to compete in market [10, 11] which requires to enhance the level of CR. Due to the CR issue among these companies, the performance is low. The worldwide view of electronic industry is highlighted in Figure 1.



**Figure 1.** Worldwide View of Electronic Industry  
**Source:** Future Market Insights (FMI)

However, low CR in electronic industry can be well managed with the help of better communication skills. Communication skills in relation to the CS and customer loyalty is important. Better communication skills of employees have the potential to increase CS and customer loyalty which will automatically increase the CR. As the communications skills has relationship with CS and customer loyalty [12, 13].

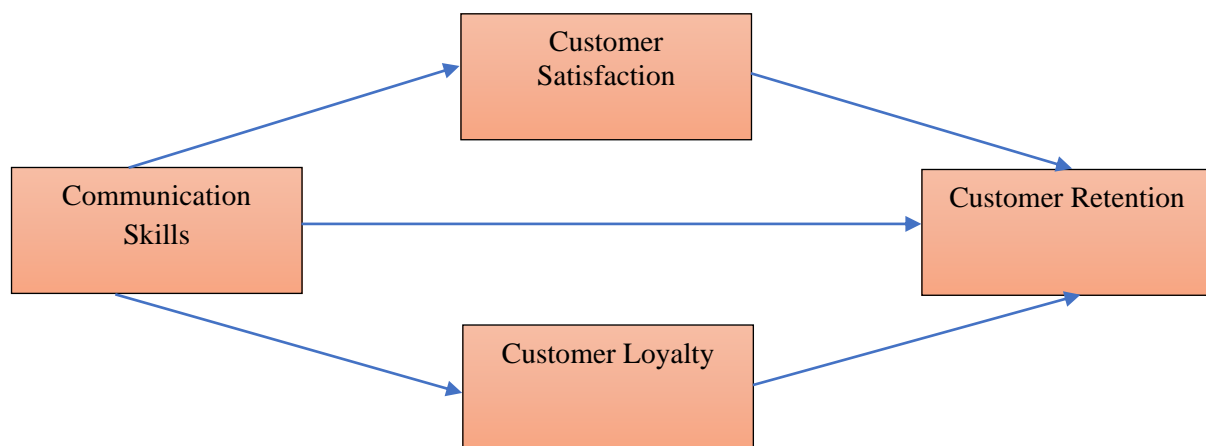
Communications skills has major effect on CR [14, 15], however, psychological effect of communication on customer is not available in the previous literature. Moreover, the supply chain procedure of electronic companies is not discussed by the previous studies. It is most important to discuss because psychological effect has major role on CR. Psychological effect of communication also has relationship with CS which lead to the CR. Psychological effect of communication also has positive effect on customer loyalty which lead to CR. Therefore, the relationship between psychological effect of communication skills, CS and customer loyalty can increase the CR.

Hence, purpose of this study is to investigate the psychological effect of communication skills on CR with mediating role of CS and customer loyalty in relation to the supply chain activities. This is pioneer study which evaluated the effect of psychological effect of communications on CR along with the presence of CS and customer loyalty. As this study also examined the mediating effect of CS and customer loyalty between the psychological effect of communication skills and CR in electronic industry of Indonesia. Therefore, this valuable relationship between psychological effect of communication skills, CS, customer loyalty and CR have both theoretical as well as practical implication for the literature and electronic industry.

## 2. Literature Review

CR denotes to the activities as well as actions taken by organizations to decrease the

of customer defections. CR is the capability of a company to retain its customers. All the businesses performance has positive relationship with CR [16]. There are number of factors which effect on CR among organizations [17-20]. Different studies highlighted different factors which effect on retention of customers. However, this study considered the psychological effect of employee communication skills. As this study is based on electronic companies, therefore, communication skills of electronic companies were considered in this study. This relationship is not examined by previous studies in relation to the supply chain. Therefore, this study examined the relationship between psychological effect of communication skills, CS, customer loyalty and CR which is highlighted in Figure 2.



**Figure 2.** Theoretical framework of the study showing the relationship between psychological effect of communication skills, customer satisfaction, customer loyalty and customer retention.

## 2.1 Communication Skills and Customer Retention

Communication is one of the acts of transmitting meanings from one object or group to another by using the mutually understood signs, symbols, as well as semiotic rules. The key steps essential to all communication is: the formation of communicative motivation or reason. It is one of the most important area among organizations. Generally, the organizations like to recruit those employees having very good communication skills to capture the interest of the customers. A good ability of communication can attract the customers towards organizations. Therefore, communication has significant psychological effect on the customers which is the point of intention for this study. Therefore, communication has pivotal role in organizations [21, 22] to expediate supply chain activities.

There are various companies in Indonesia dealing with electronic products. These companies require to highlight communications skills. The employee of these companies should have high communication skills because employees of these companies dealing with hundreds of clients on daily basis, therefore, good communications skills are required to capture the customers. However, with the weak communication skills, employees will not be able to capture the customers which will influence on CR. Therefore, proper efforts are required by the Indonesian electronic companies to enhance CR with the help of effective employee communication skills in supply chain activities. As previous studies are proven the relationship between CR and communication skills [23]. Thus, according to the current study, communication skills has psychological effect which has important relationship with CR. Good communication skills generally have positive effect on customers which

causes to increase CR. On the other hand, weak communication skills have negative effect on customers which causes to decrease in CR. Therefore, based on these arguments, the current study proposed the following hypotheses;

**Hypothesis 1.** Communication skills have relationship with CR.

## 2.2 Communication Skills, Customer Satisfaction and Customer Loyalty

Communication skills also has relationship with CS and customer loyalty. CS can be described as a measurement that controls how happy customers are with a company's various products, services, as well as capabilities. CS information, comprising surveys and ratings, could help a corporation determine how to best advance or changes its products as well as services and help supply chain process. On the other hand, customer loyalty is the consequences of constantly positive emotional experience, physical attribute-based level of satisfaction with perceived value of an experience, which comprises the product and other services. Other studies also shows the relationship between communication skills and customer loyalty [24]. Better communication skills increase the level of satisfaction among electronic industry companies. Low quality communication skills have the potential to decrease satisfaction which finally decreases the CR. Moreover, literature also shows a significant link between communication skills and customer loyalty [25]. Therefore, previous studies highlighted a relationship between communication skills, CS and customer loyalty.

**Hypothesis 2.** Communication skills have relationship with CS.

**Hypothesis 3.** Communication skills have relationship with customer loyalty.

### 2.3 Customer Satisfaction, Customer Loyalty and CR

Along with the other relationship discussed above, literature also highlighted a relationship between CS, customer loyalty and CR. Both CS and customer loyalty have relationship with CR. Any change in the level of CS and customer loyalty causes to change in the level of CR. Literature also highlighted the effect of CS on CR [26]. Literature highlighted the major role of CS in CR. Moreover, it is also clear from previous studies that customer loyalty has relationship with CR [27, 28]. Hence, any change in CS and customer loyalty has significant effect on electronic industry CR which is highlighted in below hypotheses in relation to supply chain. Moreover, in addition to this, the current study also examined the mediating effect of CS and customer loyalty between communication skills and CR.

**Hypothesis 4.** CS has relationship with CR.

**Hypothesis 5.** Customer loyalty has relationship with CR.

**Hypothesis 6.** CS mediates the relationship between communication skills and CR.

**Hypothesis 7.** Customer loyalty mediates the relationship between communication skills and CR.

## 3. Research Methodology

Questionnaire is one of the most appropriate approach to collect data from the respondents. This study also followed questionnaires approach to collect data from the respondents. There are various types of questions used in research studies. Some studies use open ended questions in questionnaire and some studies used close end questions in questionnaire. However, it is based on the population and appropriateness of the study. Therefore, this study used close end questions to collect the data from the respondents. None of the open-end question was used in the questionnaire. Moreover, this study focused on Likert scale. It is one of the widely used questionnaire among the studies. Therefore, with the recommendations of previous studies this study followed Likert scale. Moreover, Likert scale also consists of various rating such as 3-point scale, 5-point scale, 7-point scale, 9-point scale and 11-point scale. However, this study used 7-point scale to collect the data from respondents. Many previous studies recommended to use the Likert scale [29].

Another stage is based on the development of scale. This study developed the Likert scale by taking

research items from other studies. This study used the measures from other studies after making the changes. It means that this study adapted the scale and used for data collection. Communication skills were measured by asking the questions that how the employee of electronic industry deal with customers. The way of employee guiding to the customers. The way of employees to solve the problems of customers. The way of employees to listen the complains of customers. The way of employees to talk with customer in friendly way. CS is measured by asking the questions related to the services and product of the electronic companies. The questions were asked to the employees about the services and products that whether they are satisfy with these products and services or not. Moreover, customer loyalty was measured that whether the customer want to remain purchasing the company product or not. If the customer is wanting to purchase the company product in future, Definity the customer is loyal to the company. In other case the customer will not be loyal to the company. Similarly, the CR was measured by examining that from how many years or months customer is purchasing the company goods. Finally, after the management of all measures, it was entered in the scale and a proper scale was developed to collect the responses from the customers. Scale of the study was divided in to two major sections, the second section was based on the items related to the key variables, namely; psychological effect of communication skills, CS, customer loyalty and CR. The first section of the scale was used to collect information of customers related to their profile.

Population of this study is electronic companies of Indonesia and supply chain process of these companies were selected. Selection of these companies were based on the reason that these companies were facing numerous issues related to the CR and this issue was affecting the performance of these companies. Area cluster sampling was used in this study for data collection because this sampling is most important to cover wide area of population [30]. Total 600 questionnaires were used in this study and 260 questionnaires were returned. These questionnaires were distributed with the help of email.

## 4. Data Analysis and Findings

Number of studies have reported that any error in the data may lead to the different results [31], therefore, it is important to fix all the errors in the data. For this purpose, this study presented data screening in Table 1 which shows the missing value as well as outlier in the data. None of the questionnaire has missing value and outlier. Total 25 items were used in this study, however, none of the item have missing value as given in Table 1.

Table 1. Data Screening

	No.	Missing	Mean	Median	Min	Max	SD	Kurtosis	Skewness
CS1	1	0	3.425	3	1	7	1.611	-0.328	0.14
CS2	2	0	3.3	3	1	7	1.778	-0.639	0.387
CS3	3	0	3.581	3	1	7	1.559	-0.849	0.263
CS4	4	0	3.444	3	1	7	1.89	-0.861	0.963
CS5	5	0	3.594	4	1	7	1.659	-0.474	0.244
CS6	6	0	3.544	4	1	7	1.571	-0.697	0.917
CS7	7	0	3.575	4	1	7	1.863	-0.987	0.109
CS8	8	0	3.656	4	1	7	1.806	-0.788	0.113
CS9	9	0	3.763	4	1	7	1.549	-0.811	0.257
CSA1	10	0	3.688	3	1	7	1.824	-0.614	0.36
CSA2	11	0	3.538	3	1	7	1.678	-0.61	0.395
CSA3	12	0	3.538	3	1	7	1.746	-0.518	0.271
CL1	13	0	3.6	4	1	7	1.697	-0.967	0.963
CL2	14	0	3.494	4	1	7	1.673	-0.448	0.334
CL3	15	0	3.612	4	1	7	1.871	-0.91	0.16
CR1	16	0	3.519	4	1	7	1.685	-0.745	0.205
CR2	17	0	3.781	4	1	7	1.745	-0.665	0.183
CR3	18	0	3.188	3	1	7	1.534	-0.136	0.625
CR4	19	0	3.256	3	1	7	1.936	0.104	0.891
CR5	20	0	3.337	3	1	7	1.573	0.327	0.868
CR6	21	0	3.281	3	1	7	1.521	0.345	0.815
CR7	22	0	3.237	3	1	7	1.956	0.451	0.696
CR8	23	0	3.306	3	1	7	1.593	0.966	0.761
CR9	24	0	3.219	3	1	7	1.56	0.325	0.987
CR10	25	0	3.094	3	1	7	1.512	-0.353	0.442

Confirmatory Factor Analysis (CFA) is provided in Figure 3 which highlighted the factor loadings which is also given in Table 2. This study used 9 items to measure the psychological effect of communications skills, five items were used to

measure the CS, however, two items were deleted due to the loading below 0.7. Moreover, three items were used for customer loyalty and finally, nine items were used for CR. It is found that all the items have factor loadings above 0.7 as recommended by Hair, et al. [32].

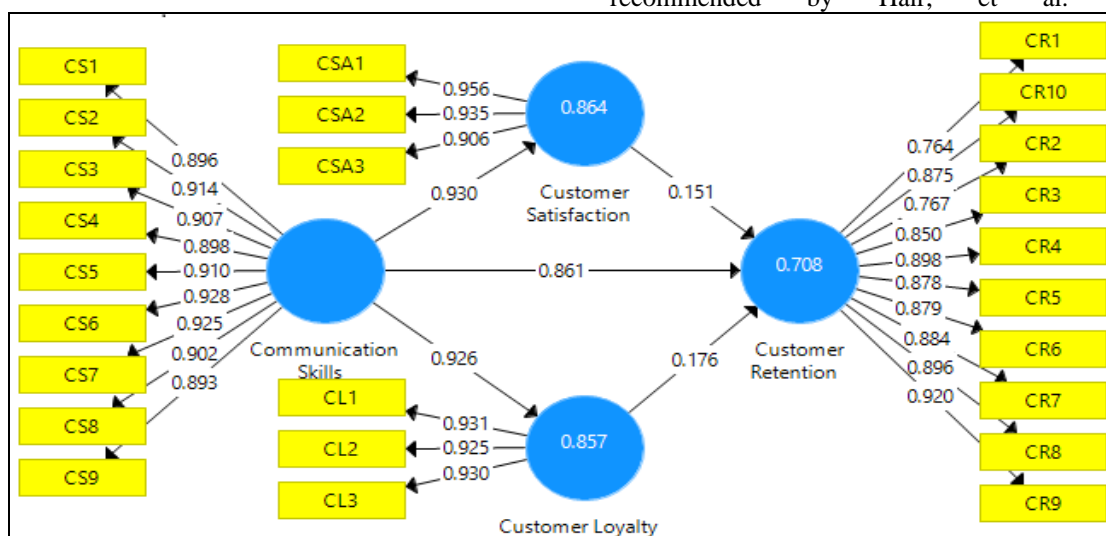


Figure 3. Confirmatory Factor Analysis (CFA)

**Table 2.** Factor Loadings

	Communication Skills	Customer Loyalty	CR	CS
CL1	0.931			
CL2	0.925			
CL3	0.93			
CR1		0.764		
CR10		0.875		
CR2		0.767		
CR3		0.85		
CR4		0.898		
CR5		0.878		
CR6		0.879		
CR7		0.884		
CR8		0.896		
CR9		0.92		
CS1			0.896	
CS2			0.914	
CS3			0.907	
CS4			0.898	
CS5			0.91	
CS6			0.928	
CS7			0.925	
CS8			0.902	
CS9			0.893	
CSA1				0.956
CSA2				0.935
CSA3				0.906

By examining the internal item consistency with the help of factor loadings, this study also examined composite reliability (CR) and average variance extracted (AVE) to examine the reliability. CR and AVE must be above 0.7 and 0.5, respectively [33]. These values are given in Table

3. Psychological effect of communications skills has 0.825 AVE value, CS has 0.87, customer loyalty has 0.863 and finally, CR has 0.744 AVE value. All these values are acceptable. Discriminant validity is confirmed with the help of cross-loadings in Table 4.

**Table 3.** Alpha, CR and AVE

	Alpha	rho_A	CR	AVE
Communication Skills	0.973	0.973	0.977	0.825
Customer Loyalty	0.92	0.922	0.95	0.863
CR	0.961	0.963	0.967	0.744
CS	0.925	0.926	0.953	0.87

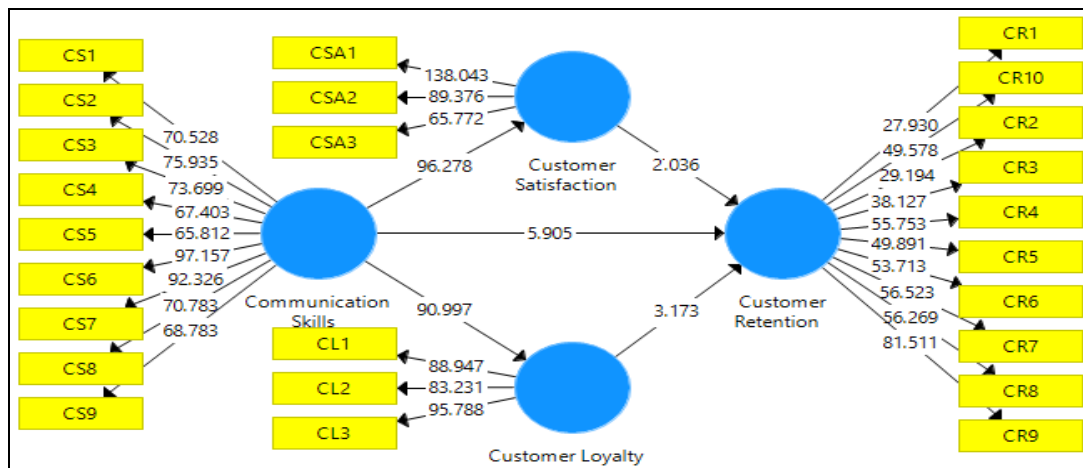


**Table 4.** Cross-Loadings

	Communication Skills	Customer Loyalty	CR	CS
CL1	0.951	0.931	0.698	0.876
CL2	0.924	0.825	0.674	0.841
CL3	0.9	0.83	0.744	0.857
CR1	0.86	0.89	0.764	0.813
CR10	0.688	0.911	0.875	0.62
CR2	0.836	0.855	0.767	0.824
CR3	0.636	0.963	0.85	0.619
CR4	0.697	0.912	0.898	0.637
CR5	0.656	0.891	0.878	0.619
CR6	0.659	0.954	0.879	0.611
CR7	0.69	0.925	0.884	0.68
CR8	0.677	0.911	0.896	0.619
CR9	0.726	0.937	0.92	0.657
CS1	0.896	0.826	0.908	0.847
CS2	0.914	0.831	0.928	0.84
CS3	0.907	0.841	0.948	0.842
CS4	0.898	0.825	0.91	0.847
CS5	0.91	0.827	0.935	0.823
CS6	0.908	0.835	0.919	0.825
CS7	0.825	0.838	0.866	0.835
CS8	0.902	0.84	0.915	0.845
CS9	0.893	0.899	0.923	0.894
CSA1	0.883	0.874	0.741	0.956
CSA2	0.873	0.872	0.735	0.935
CSA3	0.846	0.839	0.733	0.906

Number of studies has followed PLS bootstrapping for hypotheses testing [34, 35]. It is most important technique to test the hypotheses. Total seven hypotheses were proposed including direct as well as indirect hypotheses. Results of direct hypotheses are given in Figure 4 and results are highlighted in Table 5 which indicates that all five direct effect are supported. It shows that psychological effect of

communication skills has positive effect to retain the customers. Moreover, psychological effect of communication skills has positive effect on CS and customer loyalty in relation to supply chain process. Increases in psychological effect of communication skills increases the CR, CS and customer loyalty. Moreover, CS and customer loyalty have positive effect on CR.



**Figure 4.** Structural Model

**Table 5.** Structural Model (Direct Effect Results)

	$\beta$	M	SD	T Statistics	P Values
Communication Skills -> Customer Loyalty	0.926	0.926	0.01	90.997	0
Communication Skills -> CR	0.861	0.869	0.146	5.905	0
Communication Skills -> CS	0.93	0.93	0.01	96.278	0
Customer Loyalty -> CR	0.176	0.179	0.056	3.173	0.004
CS -> CR	0.151	0.148	0.05	3.036	0.005

Table 6 presented the two indirect effect. Indirect effect of CS was examined between psychological effect of communication skills and CR. Moreover, the indirect effect of customer loyalty was examined between psychological effect of communication skills and CR. Results of the analysis highlighted that indirect effect of CS is significant between psychological effect of

communication skills and CR. However, the indirect effect of customer loyalty is not significant between psychological effect of communication skills and CR. Nonetheless, r-square is presented in Figure 3 which is 0.708 for CR. It means that all the variables; psychological effect of communication skills, CS and customer loyalty are expected to being 70.8% change in CR and this change is substantial as highlighted by Chin [36].

**Table 6.** Structural Model (In-Direct Effect Results)

	$\beta$	M	SD	T Statistics	P Values
Communication Skills -> Customer Loyalty -> CR	-0.163	-0.167	0.14	1.167	0.244
Communication Skills -> CS -> CR	0.14	0.138	0.07	2.035	0.044

## 5. Conclusion

The current study successfully fulfilled the purpose of this study. Purpose of this study is to investigate the psychological effect of communication skills on CR with mediating role of CS and customer loyalty in relation to supply chain process. Population of this study was based on the electronic companies of Indonesia. After analyzing the data through statistical tool, this study reached with valuable results. It is evident from the results that psychological effect of communication skills has important contribution to the CR. Psychological effect of communication skills has major role in CR. Better communication skills of employees satisfy the customer and increases the rate of CR; however, weak communication skills decrease the rate of CR. Good communication skills show positive influence on customers. Positive psychological effect of communication skills has the ability to increase CR, however, negative psychological effect of communication skills has the ability to decrease CR. It is found that psychological effect of communication skills shows positive effect on CS and customer loyalty. It increases the CS and customer loyalty which causes to increases in CR. This study proved that CS reflects the positive effect of communications skills on CR.

### 5.1 Implications of the Study

This is a pioneer study which examined the psychological effect of communication skills on CR. Therefore, theoretically this study is major role

to extent the literature. Addition to this, the current study is also important because this study examined the mediating role of CS and customer loyalty between psychological effect of communication skills and CR. This mediation effect is not been studied earlier in the literature. Nevertheless, this study has vital role for literature because the psychological effect of communication skills on CR is first time studied in consideration to the Indonesian electronic companies. Along with the theoretical implications, this study has vital role to contribute practically. It provides suggestions to the management of electronic companies. This study suggested that psychological effect of communication skills should be considered while making the strategies for CR. Study also suggested the management to consider psychological effect of communication skills while making strategies for CS and customer loyalty.

## 6. Study Implications and Future Directions

This study has investigated the psychological effect of communication skills on CR, however, while testing this relationship, the current study observed various limitations which could be considered while doing research on this topic in future. This study discussed above mentioned relation among electronic industries due to the various issues related to the employees, therefore, it my possible this study results will not apply to the other companies although communications skills are key to every study. Moreover, this study only considered the CS and customer loyalty along with



the communication skills of employees, the other factors related to the employees should also be added to the current model. Additionally, the supply chain procedure of electronic companies is not discussed by the previous studies. Nevertheless, in this study, future researchers should include open ended questions along with the close ended questions for better clarity.

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