



Research Paper

## The Effect of Supply Chain Performance on Company X in Achieving Competitive Advantage Based on Managerial Level Perception

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**ABSTRACT:** The title of this paper is *The Effect of Supply Chain Performance on Company X in Achieving Competitive Advantage Based on Managerial Level Perception*. Supply Chain Performance is quantifying by Supply Chain Management (SCM) Practice which consist of 5 dimension: Strategic Supplier Partnership (SSP), Customer Relationship (CR), Level of Information Sharing (LIS), Quality of Information Sharing (QIS) and Postponement. This study uses quantitative methods and the sampling technique uses purposive sampling. Samples were taken as many as 32 samples of company X employees from members of the Supply Chain Management group with assistant manager level and above. This study uses SPSS 21 as an analytical tools. The partial test results show that strategic supplier partnerships (SSP), Customer Relationship Management (CR), level of information sharing (LIS), and postponement have no effect on competitive advantage (CA), and the quality of information sharing (QIS) is the only variable that affects competitive advantage. Meanwhile, the results of the simultaneous test of Supply Chain Management (SCM) Practice affect competitive advantage.

**KEYWORDS:** SCM Practice, Strategic Supplier Partnership, Customer Relationship, Level of Information Sharing, Quality of Information Sharing, Postponement, Competitive Advantage

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### I. INTRODUCTION

Technology is developing at a very high speed at this time, change after change continues to experience a very fast turnaround, one of which is the communication media where they are required to develop product innovations that they have issued as part of the promotional media for consumer confidence in the products they have issued use as company profits.

Supply Chain in a company plays an important role because it includes all operational activities related to asset management from upstream to downstream. Supply chain management activities range from fulfilling the supply of goods from supplier to manufacturer to fulfilling orders. There will be no product without supply chain management. If the product does not exist, it is impossible to fulfill the sales order. Without sales, the company may not function properly. Supply chain management, it can be said, is the backbone of the organization. The availability of effective markets and products which are very important for the company's revenue is part of the success of the implemented supply chain management strategy. Incorrect manufacturing and the inability to procure goods in a timely manner lead to a decline in consumer interest and demand, which can destroy businesses.

As previously explained, the supply chain has a very important role in all companies, including PT X. In addition, in several previous studies that have been carried out, supply chain performance has positive relationship with firm's competitive advantage. This is the background of the research title that the author will examine, namely "The Effect of Supply Chain Performance on Company X in Achieving Competitive Advantage Based on Managerial Level Perception".

### Problem Formulation

In this thesis the author proposes several problem formulations with a focus on the problem:

1. Does SSP have partial effect on competitive advantage?
2. Does CR partially affect competitive advantage?

3. Does LIS affected to competitive advantage in partially?
4. Does QIS have a partial effect on competitive advantage?
5. Does postponement partially affect competitive advantage?
6. Does competitive advantage affected by SCM Practice (SSP, CR, LIS, QIS and Postponement) in simultaneous?

### Research Objectives

In accordance with the problem definition, this study seeks to:

1. To find out the partial effect of SSP on competitive advantage.
2. To determine the partial effect of CR on competitive advantage.
3. To find out the partial effect of LIS on competitive advantage.
4. To find out the partial effect of QIS on competitive advantage.
5. To determine the effect of partial postponement on competitive advantage.
6. To determine the effect of SCM Practice (SSP, CR, LIS, QIS and Postponement) on competitive advantage simultaneously.

## II. LITERATURE REVIEW

According to (Putri & Surjasa, 2018) A supply chain is a system that distributes its products and services to customers. With a common goal (that is, to buy or distribute the best possible goods) or a network of interconnected organizations. The supply chain concept is a new concept to solve logistics problems. In this new concept, logistics problems are seen as broader problems, from basic materials to finished products used by end consumers, namely the supply chain of final commodities. Therefore, it can be said that supply chain management is a logistics network. Supply chain also the concept of establishing a relationship between the supplier company and the ordering company. (Vencataya, Seebaluck, & Doorga, 2016). It can be concluded that Supply Chain Management is a method of distributing goods and services in an integrated manner through applications that bring together suppliers, companies and consumers.

According to Li et.al's (2006) writing entitled "The Impact of Supply Chain Management Practice on Competitive Advantage(CA) and Organizational Performance," Omega, in the practice of SCM, there are 5 dimensional concepts: Strategic Supplier Partnership(SSP), Customer Relationship(CR), Level of Information Sharing(LIS), Quality of Information Sharing(QIS) and Postponement. This theory underlies several further studies in relation to the supply chain relationship

SCM Practice	Previous Research	Conclusion
Strategic Supplier Partnership	(Al-shuaibi, 2016) Strategic Supplier Partnership is characterized as an organization's relationship with its suppliers. This is intended to influence the strategic and operational capabilities of interested suppliers to help them achieve critical progress outcomes (Kawati, 2014) based on (Michael dan Robert, 2001) Strategic Supplier Partnerships are increasingly recognized as a way for companies to at least find themselves by using distinct competitive advantages to enhance strategic competitiveness	Relationships between companies and their suppliers to enable organizations to more effectively share responsibilities in terms of helping to achieve significant strategic competitiveness.
Customer Relationship	Based on (Chen & Popovich, 2003) inside journal of (Wali, 2018) Customer Relationship is an organizational combination of people, processes and technology to retain current customers with maximum customer value on the one hand while targeting potential customers on the other. (Kampani & Jhamb, 2020) Customer Relationship is defined as a combination of business processes and technology aimed at understanding the company's customers from the perspective of the identity, work style, and image of the company's customers. (Coultdwell, 1998)	An integrated combination through technology to retain customers in order for consumers to buy repeat purchases of products offered its function as a company development through good relationships and provide more services to understand the wishes of its consumers
Level Of Information Sharing	(Miguel & Brito, 2011) in the journal of (Mandasari & Widiartanto, 2015) Level Of Information sharing (information sharing) is a continuous flow of communication between partners both formal and informal and contributes to a better planning and supervision in a series of activities. (Fei, 2011) Level Of Information sharing is the basis of collaboration, and collective action. Information sharing creates the least demands on participants. Multiple sharing platforms, allowing maximum individual freedom to participate while creating the least complications in group life	The flow of communication that is formed between partners for planning and supervision and requires good relationships through trust to form a foundation in building trade relations to become the supplier of choice where excellent value creation factors have shifted to intangible assets such as information sharing, has been entwined.
Quality Of Information Sharing	(Rukmiyati & Budiarta, 2016) Quality of Information Sharing Refers to the extent to which information has the characteristics of content, form and time, so as to provide value to certain end users (O'Brien, 2005) (Mufaqih, Indarti, Ciptono, & Kartikasari, 2017) Quality Of Information Sharing can influence management decisions. The better the quality of the information shared, the smarter the manager's decisions, and the more effective supply chain management will be. (Raisinghani and Meade, 2005)	The quality of information can be seen from the relevance of the information, the timeliness of the information and the completeness of the information that provides value to end users. The accuracy, accuracy and response time provided will increase the results of the knowledge provided and the trust gained from end consumers.
Postponement	Based on (Qin, 2011) Postponement is an important strategy to achieve mass customization, and has been adopted by many companies to improve production operations, inventory management, logistics management, and supply chain operations, but delayed activities will cause additional costs at the same time. (Handayani, 2016) Postponement is a strategy to unify product and process design (such as standardization, versatility, modular design and reversal of operations) to delay product differentiation	Postponement is a postponement of activities in modifying a scary product design to find opportunities as effectively as possible that will improve production operations with the aim of reducing risk by looking at changes in volume and product variations.

Table 2.1 SCM Practice Definitions

The same thing is stated in the journal (Sidarto, 2008) In the context of the supply chain, strategies can be in the form of establishing a new factory, increasing production capacity, determining the manufacturing process, selecting a production system, transferring inventory responsibility to suppliers, etc. The supply chain strategy starts from the supplier to the final consumer, and in the preparation of the operating strategy, market needs and the availability of resources must both be used as a reference. From the two opinions above, supply chain strategy is a system carried out by the company in making reconciliations in the production that is carried out which aims to find the aspirations of customers as a form of providing cheap, quality, timely, and varied products.

In the journal (Taie, 2014) The advantage of excellence is based on a set of three characteristics. To begin with, competitive advantage must be able to obtain competitive value. Customer value can be determined by the customer based on fast delivery, lower prices, convenience or other characteristics. Second, the customer must be able to feel the increased value of the product or service. Whether the product is in an advantageous position over the competition is not as important as whether the customer perceives the product to have an advantage. Third, it is difficult to imitate competitors if you want to take advantage of your competitors. (Burden & Proctor 2000; Barney 2007). From some of the opinions above, it can be concluded that competitive advantage is being able to generate more market value for products or services that are unique from similar competitors by providing additional benefits in the form of services or product advantage.

### III. METODOLOGY

The author's study design is a descriptive quantitative study, which is based on the problems discussed in the previous chapter. Descriptive quantitative study is a type of quantitative research that seeks to characterize current or historical events. The independent variables were not changed or manipulated in this study; instead, the situation is described as it is. During February 2021 – July 2021, this research was conducted at a telecommunications company initialized as company X.

In this study, a questionnaire was used as an instrument. The population used as the subject of this evaluation is the supply chain performance that has been determined based on the research location at PT. X as many as 62 people in the SCM Group. The study using a sample with a non-probability-purposive sampling technique. Where the criteria are assistant managers and above.

Processing of questionnaire data in this descriptive quantitative study is assisted by the SPSS application which can be called (Statistics Products and Service Solutions) version 21. The use of SPSS makes it easy to process questionnaire data, avoiding manual calculations to perform instrument tests, classical assumption tests, multiple linear regression tests, the test coefficient of determination ( $R^2$ ) and test the hypothesis.

Instrument test will consist of validity and reliability test. Validity is testing every statement in questionnaire that is valid with the study objective and reliability is testing the consistency of the instrument if it used in another study case.

Classical assumption test will contain normality test, heteroscedasticity and multicollinearity test. Normality test conducted by researchers to determine the distribution of a data normally or not. Heteroscedasticity test is a test that is carried out by looking at the inequality of residual variance for all observations, namely a linear regression model. Multicollinearity test aims to show a strong bonding between independent variables in a multiple linear regression model.

The test of multiple linear regressions was used to determine the level of influence of independent variables. Adoption of SSP ( $X_1$ ), CR( $X_2$ ), LIS( $X_3$ ), QIS ( $X_4$ ), postponement ( $X_5$ ) with dependent variable partially CA (Y). The following is the formula used in the multiple regression test:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e \dots \dots \dots (3.1)$$

Note :

Y : CA

a : Constanta

$\beta$  : Regression Coefficient

$X_1$  : SSP

$X_2$  : CR

$X_3$  : LIS

$X_4$  : QIS

$X_5$  : postponement

e : Error

The unrestrained variable on dependent variable is represented by the coefficient of determination (close to zero) or  $R^2$ . A low  $R^2$  value indicates that the capacity a value close to one indicates that the unrestrained variable provides almost all the required information to anticipate fluctuations in the dependent variable.

Hypothesis testing use to determine the effect of each variable. There are 2 types of hypothesis testing, namely the T test and the F test. The T test is checking the effect of each variable that exists individually on the related variables. The F test is the same as the T test which is both a hypothesis test, the difference is that the F test is a test that is carried out jointly between independent variables and related variables.

#### IV. INSTRUMENT TEST RESULT

##### Company Overview & Respondents

In this case, the research subject is initialized as PT X. PT X itself is one of five telecommunications operators in Indonesia which has its head office in Jakarta and several regional offices & branches to support its operational activities. The respondents in this survey are employees of Company X in their respective departments (32 respondents).

##### Result of Instrument Test

##### Validity Test Results

Before being analyzed using statistical analysis with SPSS, the reliability and validity of questionnaire in each item on all test variables was first tested after the data was collected and assessed according to the conditions of the answers given.

The provisions are as follows, based on the calculation results, they are compared with rTable. To check legitimacy, do the following.

- a) If  $r_{\text{Count}} > r_{\text{Table}}$  : means valid.
- b) If  $r_{\text{Count}} < r_{\text{Table}}$  : means invalid.

Table 4.1 Competitive Advantage Validity Test Table

Variable	Statement	r-calculation	r-table	Respondent	Remarks
Competitive Advantages (Y)	1	0.614	0.2960	32 Respondent	Valid
	2	0.406			Valid
	3	0.817			Valid
	4	0.890			Valid
	5	0.786			Valid
	6	0.832			Valid
	7	0.810			Valid
	8	0.901			Valid
	9	0.897			Valid

Source Data processed in SPSS 21

Table 4.2 Strategic Supplier Partnership Validity Test Table

Variable	Statement	r-calculation	r-table	Respondent	Remarks
SSP (X <sub>1</sub> )	1	0.833	0.2960	32 Respondent	Valid
	2	0.805			Valid
	3	0.739			Valid
	4	0.800			Valid
	5	0.781			Valid

Source Data processed in SPSS 21

Table 4.3 Customer Relationship Validity Test Results

Variable	Statement	r-calculation	r-table	Respondent	Remarks
CR (X <sub>2</sub> )	1	0.763	0.2960	32 Respondent	Valid
	2	0.837			Valid
	3	0.785			Valid
	4	0.402			Valid
	5	0.752			Valid

Source Data processed in SPSS 21

Table 4.4 Validity Test Results Level Of Information Sharing

Variable	Statement	r-calculation	r-table	Respondent	Remarks
LIS (X <sub>3</sub> )	1	0.793	0.2960	32 Responden	Valid
	2	0.867			Valid
	3	0.858			Valid
	4	0.638			Valid
	5	0.741			Valid
	6	0.851			Valid

Source Data processed in SPSS21

Table 4.5 Validity Test Results of Quality Of Information Sharing

Variable	Statement	r-calculation	r-table	Respondent	Remarks
QIS (X <sub>4</sub> )	1	0.842	0.2960	32 Responden	Valid
	2	0.876			Valid
	3	0.821			Valid
	4	0.776			Valid
	5	0.772			Valid

Source Data processed in SPSS 21

Table 4.6 Postponement Validity Test Table

Variable	Statement	r-calculation	r-table	Respondent	Remarks
Postponement (X <sub>5</sub> )	1	0.791	0.2960	32 Responden	Valid
	2	0.553			Valid
	3	0.591			Valid
	4	0.637			Valid
	5	0.665			Valid

Source Data processed in SPSS 21

In the dependent variable, namely the Competitive Advantage variable, 9 statement items were distributed and valid results were obtained for each statement item by looking at the known value in  $r_{Count} > r_{Table}$ . Meanwhile, on the independent variable, namely SSP, CR, LIS, QIS and also Postponement, all statement items were distributed and valid results were obtained for each statement item by looking at the known value in  $r_{Count} > r_{Table}$ .

Based on each results table of validity test for each variable, it can be concluded that all the statement test instruments given to the respondents as many as 32 people were declared valid and worthy of conducting research

### Reliability Test Results

The results of the instrument reliability test in the questionnaire distribution research, showed that all research variables were reliable, if known by looking at each research variable that had a reliability coefficient or Cronbach's alpha greater than 0.60. A construct or variable is said to be reliable if it gives a Cronbach Alpha value  $> 0.60$ .

- if  $Cronbach\ Alpha \geq 0,60$ , it's reliable.
- if  $Cronbach\ Alpha \leq 0,60$ , then questionnaire is not reliable.

The reliability test using SPSS 21 software and it's shown as follows:

Table 4.7 Reliability test table

SN	Variable	Cronbach Alpha	Score
1	Competitive Advantages (Y)		0.919

2	SSP(X <sub>1</sub> )	0.60	0.847
3	CR (X <sub>2</sub> )		0.719
4	LIS (X <sub>3</sub> )		0.875
5	QIS (X <sub>4</sub> )		0.870
6	Postponement (X <sub>5</sub> )		0.634

Source Data processed in SPSS 21

The results of the reliability test are displayed in the output of the Reliability table. This result is greater than 0.60 for all variables evaluated according to the criteria. So the results of the questionnaires on the variables of SSP, CR, LIS, QIS and Postponement which are distributed Having a good level, or in other words data from the questionnaires distributed can be trusted.

### Normality Test Results

The purpose of the normality test is to find out how the data in the research variables are distributed. The Kolmogorov Smirnov statistical test, which has a significance threshold of 5% or 0.05, can be used to determine whether the residuals are normal.

- If the significance value (Asymp Sig 2 tailed) > 0.05 then the data in this study is normally distributed.
- If the significance value (Asymp Sig 2 tailed) < 0.05, then it is not normally distributed.

Using Kolmogorov Smirnov statistics, here are the results of calculations for all variables in the normality test table:

Table 4.8 Normality results table  
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		32
Normal Parameters <sup>a,b</sup>	Mean	Normal Parameters <sup>a,b</sup>
	Std. Deviation	3.11649912
Most Extreme Differences	Absolute	Most Extreme Differences
	Positive	.062
	Negative	-.063
Kolmogorov-Smirnov Z		.631
Asymp. Sig. (2-tailed)		.821

- Test distribution is Normal.
- Calculated from data.

Source Data processed in SPSS 21

From the results of SPSS 21 on this normality test, it can be seen from the value of Asymp.Sig (2 tailed) is 0.821. Because the significance value is greater than the research test level (0.821 > 0.05), the residual value above is normally distributed so we can say it meets the requirements for further analysis.

### Multicollinearity Test Results

Multicollinearity Test is One of the assumptions in the linear regression model that explain the correlation between unrestrained variables is not only perfect or imperfect, but also quite strong (independent).

The tolerance value or variance inflation factor is use to determine the presence or absence of multicollinearity in a regression model (VIF). As a reference, the following conclusions can be drawn:

- If the tolerance value is > 0.10 and the VIF value is < 10, it can says that between unrestrained variables in the regression model, there is no multicollinearity.
- Otherwise if the tolerance value is < 0.10 and the VIF value is > 10, it can says there is multicollinearity between the unrestrained variables in the regression model.

Results of the regression model test obtained show the values and VIF for each variable as follows:

Table 4.9 Multicollinearity test result

Model	Coefficients <sup>a</sup>					Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
	B	Std. Error	Beta				
(Constant)	3.608	8.583		.420	.678		
1 SSP	.104	.183	.070	.569	.574	.875	1.143
CR	.366	.214	.218	1.711	.099	.810	1.235



LIS	-.150	.142	-.126	-1.054	.302	.922	1.085
QIS	1.078	.192	.698	5.627	.000	.851	1.175
Postponement	.336	.251	.157	1.342	.191	.955	1.047

a. Dependent Variable: Competitive advantage

Source Data processed in SPSS 21

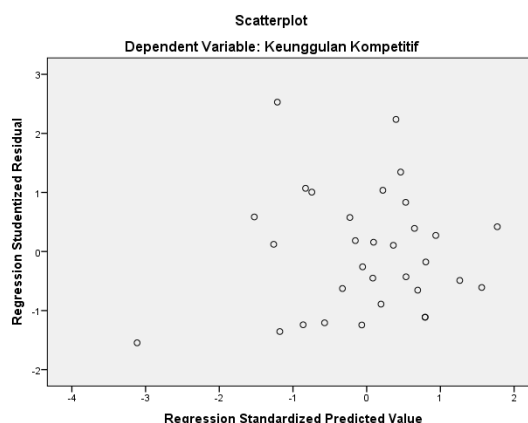
The multicollinearity test value shown variable has a VIF value above 0.10 in the enter multicollinearity table consisting of SSP X<sub>1</sub> worth 1,143, CR X<sub>2</sub> worth 1,235, and LIS X<sub>3</sub> is 1.085, QIS is 1.175 and Postponement X<sub>5</sub> is 1.047, which means that multiple linear regression analysis does not have correlation problems between independent variables.

**HETEROSCEDASTICITY TEST RESULTS**

Heteroscedasticity test determines whether the residuals in the linear regression model have variance inequality for all data. This is one of the traditional linear regression assumption tests to do.

- a) The data points are placed evenly, either above or below zero.
- b) Data points don't just gather above or below the surface.
- c) There is no wavy pattern formed by data points that widen, narrow, and widen again.
- d) Point spread without a pattern..

Heteroscedasticity testing uses a scatterplot graph. The results of the heteroscedasticity test by looking at the distribution of statements given by the researcher are as follows:



**Figure 4.1 Heteroscedasticity Test Results**

Figur 4.1 shows the results of the study which show that the dots are randomly distributed and it is not form a pattern. It showing the model has no evidence of heteroscedasticity.

**Multiple Linear TestResults**

Multiple linear regression testing aims measure the variable (X) consists of SSP (X<sub>1</sub>), CR (X<sub>2</sub>), LIS (X<sub>3</sub>), QIS (X<sub>4</sub>) and Postponement (X<sub>5</sub>) against Competitive Advantage (Y). like the table below:

Table 4.10 Multiple Linear Test Results

Model	Coefficients <sup>a</sup>						
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.608	8.583		.420	.678		
SSP	.104	.183	.070	.569	.574	.875	1.143
CR	.366	.214	.218	1.711	.099	.810	1.235
LIS	-.150	.142	-.126	-1.054	.302	.922	1.085
QIS	1.078	.192	.698	5.627	.000	.851	1.175
Postponement	.336	.251	.157	1.342	.191	.955	1.047

a. Dependent Variable: Competitive advantage

Source Data processed in SPSS 21

Based on table 4.10, multiple linear regression equations can be arranged as follows:

$$Y = 3.608 + 1.078 X_4$$

The value of a is known to be 3,608 which is a constant or condition when the Competitive Advantage variable (Y) has not been influenced by other variables. This means that if the independent variable Quality of Information Sharing(QIS) ( $X_4$ ) is zero, then the Y variable will be constant at 3,608 units and if  $X_4$  is increased by one unit, the competitive advantage will also increase by  $X_4 = 1,078$

### Coefficient of Determination Test Results ( $R^2$ )

The determination of the coefficient is the coefficient which use to determine how much influence the independent factor quantified on the dependent variable. Adjusted R square value is used to calculate the coefficient of determination.

Table 4.11 Coefficient of Determination test results ( $R^2$ )

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.812 <sup>a</sup>	.659	.594	3.400

a. Predictors: (Constant), SSP, CR, LIS, QIS and Postponement

b. Dependent Variable: Competitive Advantage

Source Data processed in SPSS 21

Results of the regression calculation in table 4.11 can be seen (adjusted R square) obtained is 0.594. 59.4% meaning company X's competitive advantage is influenced by the variable (X) which consists of SSP ( $X_1$ ), CR ( $X_2$ ), LIS ( $X_3$ ), QIS ( $X_4$ ) and Postponement ( $X_5$ ), while the remaining 40.6% of the company's competitive advantage is influenced by other variables not examined in this study.

### Hypothesis Test Results

#### T Test Results (Partial)

The t-test is used to determine whether the independent variable partially affects the dependent variable  $SS(X_1)$ ,  $CR(X_2)$ ,  $LIS(X_3)$ ,  $QI(X_4)$  and  $Postponement(X_5)$  to  $Competitive Advantage(Y)$ . The decision making is based on:

- a)  $t_{Count} < t_{Table}$  then the unrestrained variable has no impacts on the dependent variable or  $H_0$  is accepted:  $H_a$  is rejected.
- b)  $t_{Count} > t_{Table}$  then the unrestrained variable impacts the dependent variable or  $H_0$  is rejected:  $H_a$  is accepted.

The following table show the results of the t-test with detail as follows:

Table 4.12 T test results (Partial)

Model	Coefficients <sup>a</sup>						
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.608	8.583		.420	.678		
SSP	.104	.183	.070	.569	.574	.875	1.143
CR	.366	.214	.218	1.711	.099	.810	1.235
LIS	-.150	.142	-.126	-1.054	.302	.922	1.085
QIS	1.078	.192	.698	5.627	.000	.851	1.175
Postponement	.336	.251	.157	1.342	.191	.955	1.047

a. Dependent Variable: Competitive advantage

Source Data processed in SPSS 21

As per data table 4.12, we can be see the results of every independent variable obtained one influential variable, namely the Quality of Information Sharing(QIS) variable where the significant value in the SPSS result is 0.000, where the significant value is smaller with a significant value of 0.05 ( $0.000 < 0.05$ ), and the calculated t value is 5.627, which is greater than the value in the t table, which is 1.70562 ( $5,627 > 1.70562$ ) meaning that in this t test, the result is that the Quality of Information Sharing(QIS) variable has an impact on competitive advantage (Y).

In full, the results of the T test can be explained as follows:

1. The results of the SPSS 21 test for the SSP ( $X_1$ ) variable against Competitive Advantage (Y) shown a t-count value of  $0.569 < 1.70562$  with the significance level of  $0.574 > 0.05$ . This means that the Strategic Supplier Partnership(SSP) ( $X_1$ ) variable has no effect on Competitive Advantage (Y). So,  $H_1$  is not proven.



2. The results of SPSS 21 testing for the CR ( $X_2$ ) variable against Competitive Advantage (Y) obtained a t-count value of  $1.711 > 1.70562$  with a significance level of  $0.099 > 0.05$ . This means that the Customer Relationship(CR) variable ( $X_2$ ) has no impact on Competitive Advantage (Y). So,  $H_2$  is not proven.
3. The results of the SPSS 21 test for the LIS ( $X_3$ ) variable against Competitive Advantage (Y) obtained a t-count value of  $-1.054 < 1.70562$  with a significance level of  $0.302 > 0.05$ . It means that the Level of Information Sharing(LIS) ( $X_3$ ) variable has no impact on Competitive Advantage (Y). So,  $H_3$  is not proven.
4. The results of SPSS 21 testing for the QIS ( $X_4$ ) variable against Competitive Advantage (Y) obtained a t-count value of  $5.627 > 1.70562$  with a significance level of  $0.000 < 0.05$ . This means that the variable Quality of Information Sharing(QIS) ( $X_4$ ) has an effect on Competitive Advantage (Y). So,  $H_4$  is proven.
5. The results of the SPSS 21 test for the Postponement ( $X_5$ ) variable against Competitive Advantage (Y) obtained a t-count value of  $1.342 < 1.70562$  with a significance level of  $0.191 > 0.05$ . This means that the Postponement variable ( $X_5$ ) didn't effect on Competitive Advantage (Y). So,  $H_5$  is not proven.

### F Test Results (Simultaneous)

The F test is a tool to determine whether the independent variable is significantly different from the dependent variable. The following outlines the decision making:

- a)  $F_{count} < F_{Table}$ , means the unrestrained variable (X) has no impact on the dependent variable (Y) or  $H_0$  is accepted.
- b)  $F_{count} > F_{Table}$  so the unrestrained variable (X) has impacton the dependent variable (Y) or  $H_0$  is rejected.

The following are simultaneous results obtained in this study:

Table 4.13 F Test Results (Simultaneous)  
ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	582.077	5	116.415	10.068	.000 <sup>b</sup>
	Residual	300.642	26	11.563		
	Total	882.719	31			

a. Dependent Variable: Competitive advantage

b. Predictors: (Constant), SSP, CR, LIS, QIS and Postponement

Source Data processed in SPSS 21

Based on table 4.13, the calculated F value is 10,068 and the F table value is 2.59, this shows that  $F_{arithmetic} > F_{table}$  ( $10,068 > 2.59$ ).In conclusion, the independent variables are SSP, CR, LIS, QIS and Postponement (simultaneously) affect the dependent variable, namely Competitive Advantage (Y). In table 4.13 also obtained a Sig value of 0.000 ( $Sig. < 0.05$ ) then  $H_a$  is accepted or the independent variables are Strategic Supplier Partnerships(SSP), Customer Relationship(CR), Level of Information Sharing(LIS), Quality of Information Sharing(QIS) and Postponement have a significant impact to Competitive Advantage. (Y).

## V. CONCLUSION

### Conclusions

Partially, only  $H_4$  is proven to have an impact to competitive advantage.  $H_4$  is the relationship between QIS and the competitive advantage of PT X which has been described in chapter 4 in relation to PT X.

Simultaneously all variables  $X_1$  to  $X_5$ , namely Strategic Supplier Partnerships(SSP), Customer Relationship(CR), Level of Information Sharing(LIS), Quality of Information Sharing(QIS) and Postponementor  $H_6$  relationship are proven to affect PT X's competitive advantage with  $F_{count} > F_{table}$  ( $10,068 > 2.59$ ) and  $Sig(\alpha)$  of 0.000 ( $\alpha < 0.05$ ). At PT X, the concept of the dimensions of the Supply Chain which consists of suppliers, customers, information and postponements that represent supply chain performance is very good in terms of SOPs, material procurement, information flow to suppliers and decision making to postpone until the desired market tastes are known. that can affect their competitive advantage.

### Suggestions

For PT X, it is expected to maintain the good quality of information sharing(QIS). One of them is the SOP at PT X requires a Non-Disclosure Agreement (NDA) prior to the exchange of information with potential vendors. So all the information that is exchanged, cannot be disseminated. It is better if the NDA has been made during the RFQ (Request for Quotation) process, so that information related to PT X can be protected by law from the beginning until the master agreement is signed.

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