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RESEARCH ARTICLE OPEN ACCESS

FACTORS AFFECTING PERFORMANCE SUPPLY CHAIN MANAGEMENT ON MICRO, SMALL, MEDIUM ENTERPRISES BUSINESS BAG CENTRAL INDUSTRY KEBON LEGA

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Abstract:

KebonLega area, in BojongloaKidul sub-district, has been known as a center for bag manufacturing since 1990. However, the implementation of the AEC in Indonesia has a negative impact on the bag industry in KebonLega because businesses there must face problems relating to the availability of raw materials, human resources, and distribution. These problems can be overcome by analyzing the performance of KebonLega bag industry supply chain management.Previous research states that performance in an industry will improve if all four variables used in it can provide significant results on supply chain management. The purpose of this study is to investigate the influence of implementing supply chain management in the industry. In this study uses four independent variables namely long-term relationships, information sharing, trust, and process integration.

This research was conducted using a quantitative method. Data were analyzed using *SPSS.25* and *SPSS.22*. *Validity and reliability tests*, *classical assumption test, multiple regression analysis, hypothesis testing, partial test (t), simultaneous test (F)* and *determination test* were also carried out for data processing.

The results of the study indicate that the variables of information sharing and trust have significant results. Meanwhile, the variable of long-term relationship has insignificant results and the variable of process integration gives minus and insignificant results. The two variables with significant results can be reused by researchers who are interested in researching supply chain performance management in other sectors.

Keywords **—information sharing, kebonlega, long-term relationship, process integration, supply chain management performance, trust**

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I. INTRODUCTION

As a developing country, Indonesia has thousands of industries producing a great variety of local products to compete with foreign products. These local products are able to contribute positively to the Indonesian economy in the era of the free market or AEC (Kemenperin, 2019) [7].

The policy of implementing the asean economic community (AEC) in Indonesia has made competition among companies in the trading industry become more stringent. Such competition occurs among similar businesses for profits, market segments, and total sales.Companies industries and MSMEs are required to improve the quality of their products in order to compete and meet market

demands. The existence of the ASEAN economic community (AEC) can also pose quite an alarming threat to MSMEs industry players in Indonesia because foreign products can be freely imported into the country (Kemenperin, 2019) [7].

Bandung is known as a tourist and art city that has many local MSMEs industrial centers with quality works. It is also known as a shopping destination for tourists or migrants from other cities. Specifically in BojongloaKidul sub-district, there are two recommended places to buy local products, namely the shoe industry center in Cibaduyut and KebonLega bag industry center. KebonLega is the largest local bag industry center in the city of Bandung with a production capacity of 1,271 bags per year and has 53 active production units in 2015. This industrial center offers various types of bags with quality materials such as seminar bags, messenger bags, handbags, clutch bags, work bags, souvenir bags, shoulder bags, and sling bags (Adi, 2015) [1].

When a supply chain cycle has problems, it will affect the performance of supply chain management. This can result in losses and delays in product delivery to consumers as all components in the supply chain are interrelated (Copra and Meindl, 2013) [4].

The problems difficulties in obtaining raw material, human resource and distribution limitation can be overcome by analyzing the factors that support the performance of supply chain management in KebonLega bag industry center. Previous research states that the implementation of the factors of long-term relationships, information sharing, and trust can improve and maintain performance in market competition (Ariani, 2013) [2]. Using information sharing can make consumers or bag manufacturers satisfied because they have the same information sharing with suppliers. Furthermore, ongoing relationships between all parties involved in *supply chain management* will create close bonding between them so that a *long-term relationship* can be established. And the relationships between the parties involved in the supply chain must be built on *trust* so that their relationships can last long and have high quality and integrity. Trust makes the company have confidence in working with partners based on integrity and reliability (Ariani,2013) [2].

With the discovery of problem difficulties obtaining raw materials, problem human resource, distribution limitation needed research to know factor supply chain management that can influence to improvement performance company.

II. LITERATURE REVIEW

- Theory of supply chain management

The supply chain is a network of companies that jointly work with to publish and deliver a product to the end customer. The companies usually include suppliers, warehouses, distributors, stores or retailers, and supporting companies such as logistics services companies (Pujawan and Mahendrawathi, 2010) [10].

- Theory of Long-Term Relationship

Long-term relationships have something to do with improving core services, providing more value to customers and providing services needed by each individual (Mcllroy& Barnett, 2000) [9].

- Theory of Information Sharing

Information sharing is an important section in running supply chain management and full information sharing can be the key factor of a successful supply chain. (Yang, 2007)[13].

- Theory of Trust

According to Bowersoxand Donald(2013) [3]the first thing a company needs in order to build trust is by having reliable operational capabilities and showing consistent and promising performance. And secondly, both the company and partners must

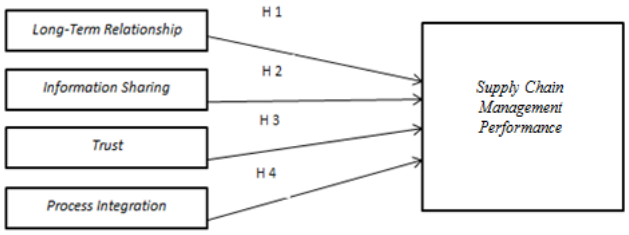
be open in terms of the information and problems they have so that the supply chain management can be made better

- Theory of Integration Process

According to Poerwanto (2019) [11]in supply chain integration, efficiency becomes the enabling substance. The material cycle from supplier to production, to the warehouse, to distribution, to consumers, is different and often associated with independent organizations.

Some factors which become problems in running the supply chain are a quality improvement and low price implementation, difficulty in obtaining raw materials, lack of distributors, and human resources (Majid, 2017) [8]. Therefore, it is necessary to do an analysis with the aim of improving the performance of supply chain management in companies in order to survive in competition and improve quality. Many factors can affect a company's supply chain performance, including long-term relationships, information sharing, trust and process integration (Majid, 2017) [8].

Meanwhile, the journal used as a reference for this research contains a study conducted by Majid, (2017) [8], stating that the four factors used namely information sharing, long-term relationships, trust, and process integration have a significant relationship with supply chain management performance. The research framework can be seen in Figure.



Source: Majid, (2017)

III. RESEARCH METHODS

To collect the data, in this research use questionnaires, literature research, and interviewand to processing data use technique validity and reliability, classical assumption test, multipleregression analysis, test partial (t), the simultaneous (F), and determination Test. For the tools processing data use SPSS. 25 With total respondent 53. Through those processes, Table below will show the questionnaire items in this research (Indrawati, 2015) [6].

Table 1

Table.1Item Instrument Questionnaire

Item Instrument Questionnaire	Code Item
The basis of the company's long-term relationship is cooperation for mutual benefits	LTR1
Cooperation that long-standing will make customers feel trust	LTR2
The existence of a long-term project will be the basis for the relationship of cooperation with suppliers.	LTR3
Performer industry exchange information to material suppliers on an ongoing basis, both formal and informal.	IS1
Information about aspects of the company can help all parties that connected in business.	IS2
Exchanging information consistently can help smooth the operations of the company.	IS3
With a timely result, the level of consumer confidence in the producer will be high.	TR1
Many amounts of previous production will affect the level of customer trust.	TR2
Performer Industry will give convenience in transactions and during production	TR3
In activities logistics that good and fast are those that are prioritized in operations.	PI1
A system that well-connected can be obtained from smooth logistics activities.	PI2
The smoothness of a logistics activity	PI3

will also result in effective material flows.	
a good industrial performance has an impact on rising profit levels.	SCMP1
Customers are very happy with the quality of the product that good and maintained.	SCMP2
Target markets can have an impact on the sale of products produced.	SCMP3
the industries that Professional will always prioritize customer satisfaction	SCMP4

Further, the researcher examines the research model by distributing 53 questionnaires through owner and employee. Besides those items above, this questionnaire also asks questions devoted todemographic, namely gender, age, business role. This research used a five-point *Likert* scale to measure responses from the respondents(Indrawati, 2015) [6].

IV. RESULTS

(1) Validity Test

Testing instrument validation is carried out between the scores of questions with the total score of the construct. If r count > r table, then the question item is declared valid and if r count <r table, then the question is declared invalid (Indrawati, 2015) [6]. Validation test results with SPSS 25 and the results are explained as follows:

Table.2Validity Test Results Long-term relationship

No.	Variable	Code Item	Significance level	*R count*	*R table*	Result
1	Long-term relationship	LTR1	0.5	0.824	0.2706	Valid
2		LTR2	0.5	0.508	0.2706	Valid
3		LTR3	0.5	0.880	0.2706	Valid

Table.3Validity Test Results Information Sharing

No.	Variable	Code Item	Significance level	*R count*	*R table*	Result
1	Information Sharing	IS1	0.5	0.834	0.2706	Valid
2		IS2	0.5	0.727	0.2706	Valid
3		IS3	0.5	0.765	0.2706	Valid

Table.4Validity Test Results Trust

No.	Variable	Code Item	Significance level	*R count*	*R table*	Result
1	Trust	TR1	0.5	0.812	0.2706	Valid
2		TR2	0.5	0.821	0.2706	Valid
3		TR3	0.5	0.594	0.2706	Valid

Table.5 Validity Test Results Integration Process

No.	Variable	Code Item	Significance level	*R count*	*R table*	Result
1	Process Integration	PI1	0.5	0.743	0.2706	Valid
2		PI2	0.5	0.793	0.2706	Valid
3		PI3	0.5	0.724	0.2706	Valid

Table.6 Validity Test Results Supply Chain Management Performance

NO.	Variable	Code Item	Significance level	*R count*	*R table*	Result
1	Supply Chain Management Performance	SCMP1	0.5	0.616	0.2706	Valid
2		SCMP2	0.5	0.614	0.2706	Valid
3		SCMP3	0.5	0.660	0.2706	Valid
4		SCMP4	0.5	0.616	0.2706	Valid

The process data in table validity use significance level 0.5 and R table 0.2706 for processing data has result valid.

(2). Realibility Test

Reliability testing in this study used the alphacronbach (α) test. In variable, it can be said reliable if the alphacronbach value is more than > 0.6. The following in Table 4.6 shows the results of reliability tests of independent variables (long-term

relationship (X1), Information sharing (X2), Trust (X3), and Process Integration (X4) and dependent variables supply chain management performance (Y).

Table.7 Realibility Test

No	Variable	Alpha Cronbach	Result
1.	Long-term Relationship (X1)	0.619	Reliable
2.	Information Sharing (X2)	0.663	Reliable
3.	Trust (X3)	0.610	Reliable
4.	Process Integration (X4)	0.616	Reliable
5.	Supply Chain Management (Y)	0.628	Reliable

Assumption Classic Test

(1). Normality Test Results

Table.8 Normality Test Results

		Unstandardized Residual
N		53
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.5848622 0
Most Extreme Differences	Absolute	.106
	Positive	.071
	Negative	-.106
Test Statistic		.106
Asymp. Sig. (2-tailed)		.200[c,d]

The results of processing data probability are greater than (> 0.05) then H_0 is accepted, is the residual variable is declared normally distributed.

(2). MulticollinearityTest

The tolerance value is < 1 or the variance inflation factor (VIF) value is greater > 10 indicates the significant multicollinearity(Indrawati, 2015) [6].

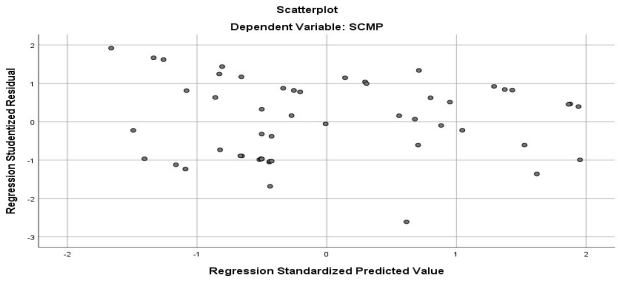
Table.9 MulticollinearityTest

No	Variable	Code Item	Collinearity Tolerance	Statistics (VIF)	Result
1	Long-term relationship	LTR	0.755	1.325	There is no multicollinearity
2	Information Sharing	IS	0.597	1.675	There is no multicollinearity
3	Trust	TR	0.539	1.856	There is no multicollinearity
4	Process Integration	PI	0.992	1.008	There is no multicollinearity

(3). Heteroscedasticity test

The use of a heteroscedasticity test aims to see whether in the regression model there is a variable inequality from the residuals of other observations (Indrawati, 2015) [6]. The heteroscedasticity test can use the Glaser or absolute residual test from the data value and scatterplot graph.

Table.10 Heteroscedasticity test



Multiple Regression Analysis

Multiple linear regression analysis is used by researchers if the researcher intends to look for the influence of how conditions up and down variable dependentif two or more independent variables are predictors (Sugiyono, 2017) [12].

Table.11Multiple linear regression

No	Variable	*Unstandardized Coefficients*		T	(Sig,)	Result
		B				
	Constant	9.920				
1	Long-term Relationship	(X1)	0.091	0.505	0.616	Not Significant
2	Information Sharing	(X2)	0.383	1.966	0.055	Significant
3	Trust	(X3)	0.497	2.335	0.024	Significant
4	Process integration	(X4)	-0.007	-0.041	0.968	Not Significant

Conclusion in Table.11 two variables independent have positive values that can influence and increase supply chain management performance in the KebonLega bag industry. One variables independent insignificantand one variable independent that has a negative or no effect on supply chain performance that is process integration.

Test Results (t) Partial

Table.12 testing using a hypothesis method aims to determine whether the variable is independent significant or not significant to the dependent variable (Sugiyono, 2017) [12].

Table.12Test Results (t) Partial

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	(t)	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.920	3.336		2.974	.005
	LTR	.091	.180	.066	.505	.616
	I S	.383	.195	.288	1.966	.055
	T R	.497	.213	.360	2.335	.024
	P I	-.007	.171	-.005	-.041	.968

For the (*t*) parsial test use T table 1.674. Long-term relationship variables gets results (*t* count 0.505 <t table 1.674), information sharing gets results (*t* count 1.966> t table 1.674), trust variables gets results (*t* count 2.335 > t table 1.674), process integration variables gets results (*t* count -.041 <t table 1.674).

Simultaneous (F) Test

Table.13 Simultaneous (F) Test

ANOVA						
Model		Sum of Squares	df	Mean Square	(F)	Sig.
1	Regression	74.039	4	18.510	7.498	.000[b]
	Residual	118.490	48	2.469		
	Total	192.528	52			

Based on the results of the simultaneous (F) test obtained value (F count) of 7.498 which means greater than (f table) which is 2.55 which means that H_0 is rejected and H_I is accepted with a significant value of 0.000. So it can be concluded that the independent variables, namely long-term relationships, information sharing, trust, and integration processes all have a positive and significant influence on the dependent variable namely supply chain management performance.

Determination Coefficient Test (R^2)

The results of Table 4.12 (R^2) test in this study aimed to find out how far the proportion of variation in the independent variable can explain the dependent variable well. The coefficient of determination is between 0 and 1. If the result of the value is small it means that the ability of the independent variable to explain the variation of the dependent variable is very limited. If it approaches 1m the independent variable gives almost all the information needed to predict the variation of the dependent variable (Ghozali, 2011) [5].

Table.14 Determination (R^2)

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std.error of the Estimate	Durbin-Watson
1	.620[a]	.385	.333	1.57116	2.448

Based on the results of the determination test in the table above, it is known that R^2 or R square get a value of 0.385 or 38.5%, which means that the bag industry supply chain management performance can be explained by the independent variable Long term Relationship, Information Sharing, Trust, and Integration Process. While the remaining 61.5% can be explained by other factors

V. Conclusion

Based on the results of testing and analysis in this study, it can be concluded that the factors

that influence the performance of supply chain management on micro, small, and medium enterprise in KebonLega bag industry center are as follows:

1. *Long-term relationship* does not significantly influence the performance of supply chain management of the bag industry center.
2. *Information sharing* has a significant influence on the performance of supply chain management of the bag industry center.
3. *Trust* has a significant influence on the performance of supply chain management of the bag industry center.
4. *Process integration* has a negative and insignificant influence on the performance of supply chain management of the bag industry center.

In accordance with the conclusions, here are some suggestions for the KebonLega bag industry center. Long-term relationship has low influence, expected the industry to not direct decide cooperation relationship with customers when the order is finished. Information sharing has a significant influence for the next, the industry must keep building communication and information with customer, supplier, and another member in supply chain. to comprehend necessity each other so that the information around activity production can well be received and can make performance industry to be better. Trust has a significant influence. for the next the industry must keep building trustfully with customer, supplier, and another member in supply chain to make increase performance industry in producing. Process integration has negative and insignificant, KebonLega industrial center must implement process integration in the supply chain with regard to equality or similar levels, an equal level of integration must be considered because it involves suppliers and customers in supply chain management. The results of this study can be beneficial for industrial center business actors in helping to evaluate factors that now still need to be improved to maintain product quality in free-market competition.

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