THE EFFECT OF DISTRIBUTION INTEGRATION AND SUPPORT SERVICE OF EXPORT DOCUMENT ON OVERALL PERCEPTION OF SERVICE EXCELLENCE AT PT MITRA KARGO INDONESIA

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ABSTRACT

The competition among freight forwarding is strict. This research analyzes the effect of Distribution Integration and Support Service of Export Document on Overall Perception of Service Excellence at PT Mitra Kargo Indonesia, Semarang as freight forwarding company. This research used a multiple linear regression. The primary data used in this research is collected from questionnaire. The amounts of the respondents are 45 who are exporters of PT Mitra Kargo Indonesia. The result shows that analysis which is carried out by SPSS 16, from coefficient of adjusted Rsquared (R^2) reveals that the independent variable (Integration of Distribution $-X_1$ and Support Service of Export Document $-X_2$) affected on dependent variable (Perception of Service Excellence – Y) amount of 63,5%. Whereas other factors are amount of 36,5% which is out of this research.

Keywords: freight forwarding, integration distribution, service excellence, export document, transportation, trucking.

INTRODUCTION

International trade or known as export import is important economic sector in every country. In the other side, the improvement in transportation makes the mobility of goods and assets rapidly high so the trade flows more accelerate (Sasono, 2012). The acceleration of trade flows, especially on export import activity is the main part of freight forwarding company. The competition among freight forwarding companies is strict, taking customer's attention is required due to maximize company's purpose. Therefore, they should concern on both of the quality of service and customers satisfaction who especially are shipper as their end user of their services.

PT. Mitra Kargo Indonesia or as known as MKI is one of freight forwarding company located in Semarang that being a member of Indonesian Logistics and Forwarder Association (ILFA) in 2010. This company provides a export import services which full container load (FCL) or less than container (LCL) via sea freight, inland, or air freight and trucking service. Started with 3 armadas, until now PT. Mitra Kargo Indonesia has 48 armadas, it is such a succeed for a businessman who was entered in freight forwarding industrial. According to the information from PT. Mitra Kargo Indonesia, the amount of trucking volume shown on the amount of shipper's container period of Mei 2011 until December 2014 was increased year by year. As seen on Table 1, explained about trucking volume of PT. Mitra Kargo Indonesia period of Mei 2011 - December 2014.

The explanations of Table 1 of trucking volume of PT. Mitra Kargo Indonesia are:

- 1) The volume of trucking was increased year by year. It shown on 2014 was the highest amount which is 11.785 twenty-foot equivalent units (TEUs) and the lowest amount was in 2011 which is 2.030 TEUs.
- 2) The percentage of trucking was unstable on every month. The highest decrease was -26% in January 2014 and biggest amount of increasing was 72% in October 2012.



Table 1
Trucking Volume of PT Mitra Kargo Indonesia
Central Java and Yogyakarta Area
Year of 2011 – 2014

1.00		1	olume	&Percen	tage of]	The Year	ų.	
Month	2011	.%	2012	%	2013	- %	2014	%
JAN			306	5,5%	503	-21%	750	-26%
FEB	570	-	516	68,6%	556	10,5%	\$78	17%
MARC H	1	-	320	-38%	667	19,9%	1055	20%
APR	9 4 9	12	303	-5,3%	770	15,4%	1141	8,19
MAY	177		424	39,9%	920	19,4%	967	-159
JUN	223	26%	384	-9,4%	870	-5,4%	996	2,9%
JUL	254	13,9%	406	5,7%	920	5,7%	1003	0,7%
AUG	247	-2,7%	284	-30%	927	0,7%	1017	1,4%
SEP	276	11,7%	315	10,9%	932	0,5%	941	-7,49
OCT	285	3,2%	542	72,0%	958	2,7%	983	4,5%
NOV	278	-2,4%	583	7,5%	970	1,2%	998	1,59
DEC	290	4,3%	634	8,7%	1015	4,6%	1056	5,8%
TOTAL	2.030	TEUs	5.017	TEUs	9.952	TEUs	11.785	TEUs

For the information, trailer truck of PT. Mitra Kargo Indonesia was increased in the end of 2013. But, there were problems for PT Mitra Kargo Indonesia:

- 1) The first problem is from that explanation in October 2012 the percentage of trucking volume was 76% as the biggest amount at all.
- Then, after 2012 none of those year reach amount of percentage volume trucking on 50%.

Handling process of trucking is a not easy thing, the distribution of trucking has a huge risks. Same things happened to overall export document handling process, because resulted in release the goods out from customs area. Fan (2014) revealed that logistics, identified an elements to keep forwarder's existence and sustainable development which are combination of shipping resources with supply chain management, coordinating all respects, high-quality service for customers, reinforced competitiveness. One of the element according to Fan (2014) is rational relocate logistics resource (service first satisfying, high-quality solution). Zeimpekis

(2011) also revealed that the routing plan of a delivery fleet is usually developed a prior and provides an optimal (or near optimal) way of serving customers by taking into account certain constraints, such as vehicle capacity and delivery time windows.

THEORY FRAMEWORK

Export

Definition of export is an activity that releases the goods our from customs area Sasono (2012) that there is a management export, how the management of the firm increases their management skills especially in export activities. So they are familiar with the peculiarities and the mechanics of the export process (Adu-Gyamfi et al, 2013).

Freight Forwarding

According to Samekto et al (2014), freight forwarding is business that aimed to handling overall activity which is needed to the implementation of goods delivery and receipt through inland, ocean and air mode of transport. . Service of freight forwarding, based on Samekto et al (2014), is considered as a physical distribution which covers



several things about logistic activities, they are: transportation, cargo handling operations, shipment, warehouse, marking, quality control, customs clearance and management.

International Marketing

By far the most popular way for firms to with international markets engage is exporting. Strategy of International Marketing is defined as to do a standard activity of without marketing considering anv differences on every country as market target (Studied Material, International Marketing 2014). The definition marketing of capabilities quoted by Morgan et al (2011) are the processes by which firms select intended value proportions for target customers and deploy resources to deliver these value offering in pursuit of desired goals.

Perception of Service Excellence

Perception is a process where a person selects, organizes, identifies, and interprets the sensory information he receives in order to understand his environment (Kenvon et al. 2015). The service of freight forwarding will be perceived by shipper. It is based on what the shipper received was in order to create a service quality. Service excellence is the best services which are given by company to fulfill their customer's need, both internal and external customer (Daryanto et al, 2014). The purposes of the service excellence are (Daryanto et al, 2014): a) to give a high quality service for customer, b) to create a trust and satisfaction to customer, c) to avoid an unnecessary demand in the next day to producer, d) to lead to a decision making of offering goods/spotted service, e) to keep the customer's feeling of what they need is fulfilling. References on above statement, both leader and employees of the company must be have a spirit of service. They have to concern with a whole factor, element, and aspects of service excellence. Not only based on the meaning of service excellence. In reference to above descriptions, the features of service excellence are based on customer's point of view or perception. The customer perception of the service quality is overall judgment towards excellence of service.

Integration of Transportation Distribution

By considering to Jovanovic (2006) about international economic integration, the transport definition of distribution of integration is a process and a means by which of group of transportation strives to increase its level of welfare. We need concerned to the an attributes before we designing a distribution network (Brandimarte et al, 2007) such as:

1) Competition Factors

- a) Quality, quality of goods is key factor influencing consumer's choice, but it is itself a complex concept encompassing multiple dimensions (Brandimarte et al, 2007).
- b) Assortment is the variety of products offered. For trucking Services Company, this means offering the possibility of customizing an end item according to customer's products.
- c) Flexibility, which is the ability to adapt to changes and exceptional conditions. We can have different kinds of flexibility according to the variable that raises the need for a change (Brandimarte et al, 2007).

2) Cost Driver

We have seen that supply chain based on physical point of view, a network of facilities on which goods are stocked and transported (Brandimarte et al, 2007). Transportation cost presents a resulting from a mix of fixed and variable costs. When, we shipping a standard container from a certain point of the supply chain to another one, part of the costs are fixed and independent of the content. Costs are main role to choose a distribution channel (Sudaryono, 2014).

3) Strategy

In fact, firms adopt quite different strategies. PT Mitra Kargo Indonesia has a strategy to manage their trucking schedule. The differential location of their shipper, shipper's stuffing quantities, and their VIP client are few of things need to be concerned. Based on Sudaryono (2014), in every industry, key success to manage the competitive physical distribution is getting a lowest cost of overall.

Service of Export Document

Document for international trade fall into several overlapping categories (Hinkelman, 2008):

- Transaction Document(s), the key transaction document is the invoice or commercial invoice. This document is used by all parties to the transaction for accounting and bookkeeping purposes.
- 2) Export Document, these are documents required by the customs or national export authority of the country of export and vary greatly from country to country. Included are licenses, permits, export declaration, inspection certificate, commercial invoices and sometimes transport document.
- 3) Transport Document, these are documents issued by shipping line, air cargo carrier, trucking company or freight forwarder that detail the terms of transport for cargo. Shipping instruction is a document sent by a shipper giving details of how goods are to be shipped and delivered (Study Material of Export and Import). Those document modified by PT. Mitra Kargo Indonesia as their freight forwarding. Among freight forwarding has a different design of shipping instructions.
- 4) Inspection Document, these documents generally issued by third party inspections firms at the request of the buyer to certify the quality and the quantities of a shipment. Inspection documents are also issued to satisfy country export and import requirements.
- 5) Insurance Document, these documents evidence insurance coverage of a shipment



and can be in the form of a policy or a certificate.

6) Banking/Payment Document, banking and payment documents include letters of credit, amendments to letter of credit, various advices, plus virtually all the other documents used in trade (B/L, commercial invoice, insurance documents, inspection certificate, etc).

International Freight Transport

Lowe (2005) stated that intermodal freight transport is the concept of utilizing two or more 'suitable' modes, in combination, to form an integrated transport chain aimed at achieving operationally efficient and cost effective delivery goods in an environmentally sustainable manner from their point of origin to their final destination.

The essence of efficient intermodal transport lies in the use of a unit-load system capable of transfer between road, rail, and other transport modes, and which allows for the collection of consignments by. Such systems provide greater flexibility for the customer, who may be either the shipper or the consignee, by allowing goods to be loaded or unloaded at his premises in the conventional manner without changing the current practices applied to his domestic or local traffic.

Trucking

One of the part intermodal freight transport which goods are loading by truck. This intermodal transportation is very flexible, fast, and reliable than others. Loaded goods by truck need a less packaging which decreases costs (Sudaryono 2014). To manage the stuffing schedule is not an ease at all and PT Mitra Kargo Indonesia has their strategy of it. There are several things need to be considered for trucking strategy according to observation:

a) Stuffing schedule, the shipper decides the stuffing schedule then Operational Division is considering the trucking distribution according to most quantity first. After that, they need to check the



driver location Global Positioning System (GPS).

- b) Time of loading container, the type and brand of container depend on the shipper's choice. The Document Division which booked the container is based on the schedule and the availability of the Shipping Company.
- c) Truck availability, the armadas parked in the Garage 4 of Tanjung Emas Port which PT Mitra Kargo Indonesia has to pay the cost. PT Mitra Kargo Indonesia Indonesia does not allow the idle time so that the trucking availability is based on the first armada that will arrive in Tanjung Emas Port. The first arrival will be given to the farthest shipper (based on the schedule).
- d) Warehouse location, The shipper has the different location and obstacle on the road. For example, there is a warehouse location that trailer truck didn't allowed before 7 p.m even the armada arrived at 7 p.m the employee need to stuffing as fast as they can so the truck will leaving the warehouse before 6 a.m in the next morning. So Operational Division need to considered this a lot and plan B are prepared.

Main Carriage/Shipment

Shipment are the intermodal transport which has a lowest freight cost but the slowest one (Sudaryono, 2014). The principal contributors for hiring ships include exporters and importers, shippers and receivers, and consignors and consignee.

RESEARCH METHODS Data Collecting Methods

Research data describes about data collecting methods and data sources that used in this research. Here is the description:

a) Questionnaire

The questionnaire form will be given to the respondents who's the customer of PT. Mitra Kargo Indonesia especially in the Central Java and Yogyakarta, also required with references to the result of the Slovin formula, amount of the sample are 45 respondents. Those respondents are aimed to ease the research calculation.

b) Literature Review

This literature review aims to add, expand the knowledge, and complete the data according it's the problem of the research.

c) Interview

There is an direct interview to the respondents who answered the questionnaire form.

Data Sources

a) Primary Data

In accordance with this research, interview and observation are include as the primary data.

b) Secondary Data

The secondary data which are collected to this research are company profile, organizational structure, job description and another supporting data.

Feature Data

a) Quantitative Data

In this research, the quantitative data resulted in the data from questionnaire that distributed to respondents.

b) Qualitative Data

In this qualitative data, organization structural, company profile and vision mission of the company are used.

Theoretical Framework

Theoretical framework of this research project is described as Picture 1.



Picture 1 Theoretical Framework

Source: Built Design for the Research, 2015

Based on the Picture 1, integration of distribution effect and support service of export document is the independent variable which effected on overall perception of service excellence (dependent variable).

Research Variable and Operational Definition of Variable Independent Variable

According to this study, there are two independent variables which are integration of distribution (X_1) and support service of export document (X_2) . Here is the explanation of indicator on each independent variable:

a. Integration of Distribution (X_1) , it describes about the distribution channel of transportation are brought under the management of single entity.

There are indicators of X_1 : 1) *Mode of transportation*, it measured by the respondent perception on how PT MKI oriented to the customer's choice of departure schedule for their vessel; 2) *Transportation coverage*, it describes of the coverage transportation from trucking to main shipment which measured by the respondent perception on time delivery schedule; 3) *Safety delivery*, it measured by the respondent perception on overall delivery process, no physical damage.

b. Support Service of Export Document (X_2) , it describes about support service of export documents based on the service quality.

There are indicators of X_2 : 1) Easy access to contact the company, it describes of the export document service which measured by respondent perception on how easy they find PT MKI's website out on search engine is; 2) The company will be dependable to finish the overall export documents, it measured by respondent perception on company ability to perform the promised service; 3) The employee will never too busy to responds to shipper's request, it measured by respondent perception on the willingness to help shipper and provide prompt services; 4) The clarity of problem solving of export document service, it measured by respondent perception on the knowledge and courtesy of employees and their ability to inspire trust and confidence; 5) The company will keep their shipper informed and listen to them about their goods information, it measured by respondents perception on how PT MKI always listen to their customer about customer's goods, document clearance, etc.



Dependent Variable

The dependent variable that used in this study is perception of service excellence (Y). Here is the explanation of definition and indicator of dependent variable. Perception of service excellent (Y), it describes a process where a customer select, organizes, identifies, and interprets the sensory information he receives in order to understand his environment (Kenyon et al 2015).

The indicator of Y are:

1) Sustainable service, it describes a shipper perception of the service excellent measured by how PT MKI always fulfilled the customer's quantity of container.

2) *Believability*, it measured by how PT MKI always clearance the document of their customer until main shipment.

3) Serve with commitment to customer, it measured by how PT MKI always committed to finish on overall service.

4) Give the service more than what customer expected, it measured by how company can handling a sudden problem about overall distribution and export document service.

Analyzing Method

There is a testing technique which was used in this research. Before distribute a huge number of questionnaires, some of them will be tested by using validity and reliability testing. The other questionnaires will be distributed to respondents if the testing results are valid and reliable. The result of the questionnaire is the data. It will be processed using analysis of multiple regressions, F Testing, t Testing, and Adjusted R Square. SPSS (Statistical Product and Service Solutions) software will be helped to fasten the data processing, both questionnaire experiments and processing a result of questionnaire distribution.

Table 5The Result of Validity and Reliability Test

Construct/Variable	Composite reliability	Item (Indicator)	Corrected Item- Total Correlation
		X11	0,832
Integration of Distribution	0,776	X12	0,815
Distribution		X13	0,843
		X21	0,780
	0,845	X22	0,711
Support Service of		X23	0,799
Export Document		X24	0,855
		X25	0,780
	rception of	Y1	0,661
Perception of		¥2	0,579
Excellence Service	0,732	¥3	0,751
		Y4	0,583

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Source: processed primary data, 2015

RESULT AND DISCUSSION Validity and Reliability Test

Then validity test is used to determine the propriety of the question. Otherwise, it is used to measure the authentic and validity of an each question. The decided criteria are: Item is valid if r count (*Corrected Item* - *Total Correlation*) > r table (0,294)

Item is invalid if r count (*Corrected Item – Total Correlation*) < r table (0,294)



Based on the Table 5, that the entire indicator (observed) are valid and worth to use as indicator of construct (latent variable). Alpha coefficient (cronbach alpha) has a value at 0,70. Therefore, the research variables (construct) which integration of distribution and support service of export document are reliable or high reliable. In the other word, those are appropriate to used as variable (construct) for the research.

Normality Test

Normality test is represent the data of the research were distributed in normal (prevalent) or not. Kolmogorov Smirnov test is more accurate method to test the. The test is based on the significant probability number of Kolmogorov Smirnov. The data interpreted as a normal distribution while the number of significant more than 0,05. Here is, Table 6, the result of SPSS.

Table 6
Result of Normality Test (Kolmogorov – Smirnov Test)

One-Sampl	e Kolmogorov-Smirnov	Fest
		Unstandardized Residual
N		45
Normal Parameters ^a	Mean	.0000000
	Std. Deviation	.76105420
Most Extreme Differences	Absolute	.112
	Positive	.088
	Negative	112
Kolmogorov-Smirnov Z		.749
Asymp. Sig. (2-tailed)		.628

a. Test distribution is Normal.

Source: processed data of SPSS, 2015

Multicollienearity Test

Multicollinearity test is aimed to testing a correlation between independent variable in the regression model. In this research, multicollinearity test is used to find out the relation of between independent variable (integration of distribution and support service of export document) either effected or significant.

As a result, the regression model is out of multicollienarity issue and independent variable is affected on the dependent variable whether simultaneously or partially.

Table 7 VIF and Tolerance VIF and Tolerance

Variables	Tolerance	VIF
Integration of Distribution	0,972	1,029
Support Service of Export Document	0,972	1,029

Source: Processed data of SPSS, 2015



Multiple Regression Test

Multiple regression analysis allows us to determine the effect of more than one independent variable on dependent variable (Gaurav, 2010). This multiple regression analysis used for determine the functional relation or causal relation between an independent variable (integration of distribution and support service of export document) to a dependent variable (overall perception of excellence service).

Table 8Summary of SPSS Calculation

			Coefficients			
		Unstandardize	ed Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	14.897	2.080		7.163	.000
	X1	.308	.069	.413	4.474	.000
	X2	.271	.040	.628	6.794	.000

a. Dependent Variable: Y

Source: processed primary data, 2015

The equation of multiple regressions based on the outcome of SPSS:

Y(Service Excellence) = $14,897 + 0,308 X_1$ (Integration of Distribution) + $0,271 X_2$ (Support Service of Export Document)

Hypothesis Test

This test was conducted whether to determine or prove a significant influence between independent variable in integration of distribution (X_1) and support service of export document (X_2) on the overall perception of service excellence (Y) both in partial and simultaneous.

Partial Test (t – Test)

The criteria that used is level of significant (α) on 5% (0,05).

		Re	Table 9 esult of t - ' Coefficients'			
		Unstandardize	d Coefficients	Standardized Coefficients		
Mod	lel	B Std. Error		Beta	t	Sig.
1	(Constant)	14.897	2.080		7.163	.000
	X1	.308	.069	.413	4.474	.000
	X2	.271	.040	.628	6.794	.000

a. Dependent Variable: Y

Source: processed primary data, 2015

Based on the SPSS calculation on X1 effected positively Y. It proved on t-test > t table (4,474 > 2,01) or probability $(0,000) < \alpha$ (0,05). Besides, X2 effected positively towards Y. It proved on t-test > t table (6,794> 2,01) or probability (0,000) < α (0,05). As a result, both of X1 and X2 had good improved so had the overall perception



of excellence service at PT Mitra Kargo Indonesia.

This test was conducted whether to determine or prove a significant influence between independent variable towards dependent variable in simultaneous.

Simultan Test (F – Test)

Table 10
Result of F – Test
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.715	2	23.858	39.318	.000ª
	Residual	25.485	42	.607		
	Total	73.200	44			

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y Source: processed primary data, 2015

0,000. The comparison statement is $F_{Cal} > F_{Tab}$ which 39,318 > 3,22 or 0,000 < 0,05. It is concluded that significant effect of independent variable which are X_1 and X_2 towards Y.

Adjusted R – Squared Test

Coefficient of adjusted R squared is used to find out the amount of integration of distribution and support service of export document to represent an overall perception of excellence service at PT Mitra Kargo Indonesia.

According to the amount of Adjusted R^2 by 0,635, it means that number of variance overall perception of excellence service variable is 63,5% which explained by variance of integration of distribution variable and support service of export document. Whereas, the amount of another factors by 36,5%.

Table 11
Result of Adjusted R – Squared
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.807ª	.652	.635	.77896

a. Predictors: (Constant), X2, X1

Source: processed primary data, 2015

CONCLUSION

The result and discussion of this research was clearly achieved the research objectives and contribute to the following conclusion:

- 1. The integration of transportation distribution which felt by the customer is effected positively. It was proved by the hypothesis test even in partial or simultaneous.
- 2. The support service of export document which felt by the customer is affected positive. It was proved by the hypothesis test even in partial or simultaneous.

RESEARCH LIMITATION

Based on this observation of this research, there are a limitations. First, the contribution of two independent variables towards



perception of service excellence (dependent variable) in amount of 63,5%. It shows that there are another variable hasn't include yet in this research. Then, the scope of respondent's area were only in Central Java and Yogyakarta. Third, the indicator of each variable could be unsuitable to every freight forwarding, it depends on the observation and the company.

FUTURE RESEARCH

Hopefully, the future research could held with more variable and specific indicator accordance with PT Mitra Kargo Indonesia and widden the scope of respondent's area and increase the number of sample. Then, another variable could adjusted with basic of observation and company's agreement.

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