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Article in *Indian Journal of Public Health Research and Development* · May 2017

DOI: 10.5958/0976-5506.2017.00375.8

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# Service Recovery- An Opportunity to Enhance Shipper's Loyalty in Ocean Freight Forwarding

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## ABSTRACT

The study aims to analyse the failure of service and the service recovery solutions provided to the shippers. The dissatisfaction and the complaints raised in the freight forwarding services have not been studied to a greater extent in previous literature. The causes of failures and the actions taken for recovery from the point of shippers have been examined. The factors leading to satisfaction or dissatisfaction can be determined exactly by analysing the service failures. The relationship between the customers and the company depends on the impact of service failures and recovery strategies. The service failure would make the customers decide to move away from the company. Providing the effective recovery solutions are highly significant for maintaining and improving the customer - company relationships. Prevention of service failure and developing the recovery strategy by dealing with it in a professional manner is very crucial for freight forwarding companies.

Keywords: *Freight Forwarder, Service Failure, Service Recovery, Loyalty*

## INTRODUCTION

The freight forwarders are the third-party logistics service provider. They generally do not own any transport vehicles but provide services such as booking space from the carrier, preparing shipping documents, arranging the movement of goods from original point to destination, preparing customs clearance and advise the shippers on import/export regulations. They have a very good knowledge of shipping. They also provide some value-added services to both importers and exporters such packing and labelling, providing own transport, warehousing, distribution services. For the shipments leaving or entering our country the freight forwarders act as an interface with all the government agencies and companies involved in making the cargo available at the destination. Customers select the forwarder if they are better service provider with better deal. Freight forwarding companies are getting diversified into fast growing logistics business and changing from traditional activities to adapt into a very new avatar. There is very limited empirical information

about them. The freight forwarding industry has faced tremendous change and it is unpredictable. The viability of this industry depends on how well the forwarders meet the needs and wants of the current and future customers.

## Review of Literature

Zeithmal et.al<sup>1</sup> states that when the perception of initial service delivery falls below the expectations of customers then it is termed as service failure. Tax et.al<sup>2</sup> defines that service failure is a conflict between customers and service providers in terms of the procedure fairness, behaviour, interpersonal communications and outcomes. Hue et.al<sup>3</sup>, identifies that the service failure encounters are more common in the process of service delivery. Dr. Dokuz<sup>4</sup> has identified that the most common service failure in the view of shippers is related to information, documentation, communication, operational, equipment, booking and delivery failures.

**Table 1: Service failures and Service recovery**

Documentation failures	Bill of lading error, invoicing error, customs declaration error
Information and communication failures	customer information errors, lack of employee knowledge, communication failures.
Operation failure	Cargo handling error, unreliability of transit time, pickup error
Equipment failure	Container was damaged and unclean, unavailability of equipment to handle cargo.
Booking and Delivery failure	Booking error, Unacceptable delay in delivery, cargo delivered without b/l.
Service recovery	Solutions
Distributive Justice	Losses and damages met, discounts, gift coupons, fair outcome, discount in freight and expenditures, paid back certain amount
Procedural Justice	Flexibility in dealing the problem, corrected invoices and b/l error, provided new containers, tried to change the carriers and other service suppliers, length of time taken to resolve problem was not longer
Interactional Justice	Apology, convincing explanations, explained the situation, swift response, employee concern, employee effort, communicated well to resolve problem

According to Adams<sup>5</sup> justice theory, in every service, people always weigh their inputs against the received outcomes and if there exists an equal balance then the service is considered fair, if not then it results in inequity. Distributive justice refers to the tangible resources that are rectified and compensated in the event of a service failure (Rio-Lanza<sup>6</sup>). Walster et.al<sup>7</sup> states that if the customer perceives that benefit has not been equitably allocated, the customer would experience a feeling of injustice. Studies have proven that perceived justice of tangible outcomes has a positive effect on Loyalty. Procedural justice refers to the recovery methods the firm uses to deal the service delivery problems such as speed, delay, flexibility, accessibility (Rio Lanza<sup>6</sup>). Sparks and Mccoll Kennedy<sup>8</sup> states that interaction justice is the degree of justice experienced by the

customer through the service firm's employees' interactions during recovery. Interactional justice is considered as a sub-element of procedural justice. In a recovery situation, a procedural justice would state the perceived fairness of the recovery policies adapted by the organisation.

The disconfirmation paradigm suggested by Oliver<sup>9</sup> Bearden and Teel<sup>10</sup> is the model most widely used in customer satisfaction and dissatisfaction literature. Good win and Ross<sup>11</sup> has evaluated recovery from a justice perspective. This article explores the Distributive justice, procedural justice and interactional justice perceived by the shipper after a service failure encounter.

This article adds to the literature in recovery by analysing and evaluating the service recovery solutions and its impact on gaining loyalty.

## METHODOLOGY

### Research hypothesis

**H1:** There exists a significant relationship between service failure in freight forwarder's service and Shipper's loyalty.

**H2:** There exists a significant relationship between the types of service failures in the freight forwarding industry

**H3:** There exists a significant positive relationship between distributive justice, procedural justice, interactive justice and Shipper's loyalty.

**H4:** Shippers perceived level of service recovery significantly influence Shipper's loyalty.

### Sampling and data collection

The sampling technique applied is random sampling method. The incidents related to the service failures and the recovery strategies of the freight forwarding services are collected from the shippers. The freight forwarders have been randomly selected from the EXIM shipping times list of Freight forwarders in Chennai and the questionnaires have been distributed to their Shippers. The shippers were asked to recall the

latest service failures and solutions they have been encountered with before filling the questionnaire. Out of 200 questionnaires distributed, the valid responses were 147 only. The questionnaire has been adapted from Dr. Dokuz<sup>4</sup> "Typologies of freight forwarding service failures and recovery strategies" and it has been modified slightly with the help of professionals in freight forwarding companies and shippers. Moreover, the perceived recovery of the shipper after a service failure encounter is measured using questions related to distributive, procedural and interactional justice. Shipper's loyalty is measured by the shipper's attitude and behaviour after the service failure and service recovery encounters. A five-point Likert scale from extremely agree to extremely disagree is used. The questionnaire is divided into two sections, the first part consists of demographic information related questions such as type of business, size of company, market, years of working with the forwarding company. The next section consisted of 36 questions related to service failure, service recovery and loyalty.

**Statistical analysis**

Statistical package for social sciences (SPSS) is used for the analysis. Pearson correlation analysis and Regression analysis were used to prove the hypothesis. A pilot study was done prior to the actual research with 40 respondents to make sure the questionnaire was understandable by the respondents which helped to improve the questionnaire form. Internal consistency of the questionnaire is verified by Cronbach alpha reliability analysis. The questionnaire is highly reliable as the reliability of service failure is 0.739, service recovery is 0.882 and that of Shipper's loyalty is 0.943.

**RESULTS AND DISCUSSIONS**

**Association between service failure and shipper's loyalty.**

H1: There exists a significant relationship between service failure in freight forwarder's service and Shipper's loyalty.

**Table2: Correlation between service failure and loyalty**

		SF	LOYALTY
Service failure	Pearson Correlation	1	-.496**
	Sig. (2-tailed)		.000
	N	147	147
Loyalty	Pearson Correlation	-.496**	1
	Sig. (2-tailed)	.000	
	N	147	147

\*\* Correlation is significant at the 0.01 level (two-tailed)

Bivariate correlation is used to measure the correlation between two variables, service failure and loyalty. It identifies the linear relationship between the variables. Since p value is less than 0.01, H0 is rejected at 1% level of significance. There exists a statistically significant linear relationship and the direction of relationship is negative. The strength of association is moderate as  $(.3 < |r| < .5)$ . Hence it can be concluded that the service failures in the freight forwarder's service and loyalty are negatively correlated. This indicates that the increase in service failure would decrease the loyalty among the Shippers.

**Association between the types of service failures in freight forwarding industry**

H2: There exists a significant relationship between

the types of service failures in the freight forwarding industry.

H2a: There exist a significant relationship between documentation failure, Information communication failure and booking & delivery failure.

H2b: There exists a significant relationship between Information and Communication Failure Documentation failure, operation failure, Booking and delivery failure.

H2c: Equipment failure has a significant relationship with operational failure.

**Table3: Correlation between the different types of service failures**

		DF	ICF	OF	EQF	BDF
DF	Pearson Correlation	1	.371**	.087	.065	.288**
	Sig. (2-tailed)		.000	.297	.433	.000
	N	147	147	147	147	147
ICF	Pearson Correlation	.371**	1	.265**	.128	.213**
	Sig. (2-tailed)	.000		.001	.124	.009
	N	147	147	147	147	147
OF	Pearson Correlation	.087	.265**	1	.411**	.383**
	Sig. (2-tailed)	.297	.001		.000	.000
	N	147	147	147	147	147
EQF	Pearson Correlation	.065	.128	.411**	1	.095
	Sig. (2-tailed)	.433	.124	.000		.253
	N	147	147	147	147	147
BDF	Pearson Correlation	.288**	.213**	.383**	.095	1
	Sig. (2-tailed)	.000	.009	.000	.253	
	N	147	147	147	147	147

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**H2a:** Since p value is less than 0.01, the null hypothesis is rejected at 1% level of significance. So there exists a significant relationship between documentation failure, information communication failure, booking and delivery failure. The percentage of relationship between documentation and information failures is 13.7%, which represents moderate association, between documentation and booking and delivery failures is 8.2% which represents low association.

**H2b:** Since p value is less than 0.01%, the null hypothesis is rejected at 1% level of significance. This establishes that there exists a significant relationship between information and communication,

documentation, operational, booking and delivery failures.

**H2c:** p-value less than 0.01 indicates that the null hypothesis is rejected. There exists a significant relationship between operation and equipment failures. The percentage of relationship is 17% which represents a moderate association.

Association between the service recovery and shipper’s loyalty

**H3:** There exists a significant positive relationship between distributive justice, procedural justice, interactive justice and shipper’s loyalty.

**Table 4: Correlation between service recovery and Shipper’s Loyalty**

		SRDJ	SRPJ	SRIJ	LOYALTY
SRDJ	Pearson Correlation	1	.583**	.521**	.380**
	Sig. (2-tailed)		.000	.000	.000
	N	147	147	147	147
SRPJ	Pearson Correlation	.583**	1	.842**	.835**
	Sig. (2-tailed)	.000		.000	.000
	N	147	147	147	147
SRIJ	Pearson Correlation	.521**	.842**	1	.873**
	Sig. (2-tailed)	.000	.000		.000
	N	147	147	147	147
LOYALTY	Pearson Correlation	.380**	.835**	.873**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	147	147	147	147

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation test is used to determine the association between the service recovery variables such as the Distributive justice, procedural justice, interactional justice. Shipper’s loyalty correlates positively and substantively with variables such as distributive justice, procedural justice, interactional justice. This makes sense as the variables indicates positive quality that’s likely to contribute to better Shippers loyalty. There is a strong positive correlation between the interactional justice and loyalty, the percentage of relationship is 76.2% and is significant at 1% level. The percentage of relationship between distributive justice and procedural justice is 33%, percentage of relationship between procedural justice and interactional justice is 70%. Hence the null hypothesis is rejected.

*The mediating effect of service recovery between service failure and Shipper’s loyalty.*

**H4:** Shippers perceived level of service recovery significantly influence Shipper’s loyalty.

Regression analysis is done to prove the above hypothesis. Baron and Kenny<sup>12</sup>, proposed four steps to test the mediation and the same is used to analyse the mediation effect of the service recovery variable. First, simple regression is done with Service failure taken as

a predictor variable of outcome variable Shipper loyalty. In next step, linear regression done with service failure as predictor variable of outcome variable Service recovery, then Service recovery as predictor variable of outcome variable loyalty. Since, the above relationships are significant, a multiple regression analysis is done with Service failure and Service recovery predicting the Shipper’s Loyalty.

**Step 1:** Simple regression analysis with Service failure predicting Shipper’s loyalty. Regression is done to find the influence of service failure variable on Shipper’s loyalty. It had been proved that service failure variable has an influence on loyalty since p value is less than 0.01.

**Step 2:** Simple regression analysis with Service failure predicting Service Recovery. The regression analysis is done to analyse the influence of service failure on service recovery and since p value is less than 0.01, the service failure has influence on the dependent variable service recovery.

**Step 3:** Simple regression analysis with Service Recovery predicting Shipper’s loyalty. The regression analysis states that the independent variable service recovery has influence on the dependent variable Shipper’s loyalty.

**Table 5: Simple Regression-Service failure and Loyalty**

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	38.726	3.039		12.742	.001
Service failure	-.476	.069	-.496	-6.886	.001
<b>Dependent Variable: Loyalty</b>					
<b>Simple regression-Service failure and Service recovery Coefficients<sup>a</sup></b>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	94.591	6.696		14.125	.001
Service failure	-.875	.152	.431	-5.744	.001
<b>a. Dependent Variable: SR</b>					
<b>Simple regression-Loyalty and service recovery</b>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-4.321	1.234		-3.503	.001
Service recovery	.395	.021	.837	18.408	.001
Dependent Variable: Loyalty					

**Step 4:** Multiple regression Analysis with Service Failure and Service Recovery predicting Shipper’s Loyalty.



**Table 6: Multiple Regression- service failure, service recovery and service loyalty Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.585	2.850		1.609	.110
(X1) Service failure	-.160	.047	.167	-3.439	.001
(X2) Service recovery	.361	.023	.765	15.743	.001

a. Dependent Variable: Loyalty

$Y = 4.585 + (-0.160) X_1 + 0.361 X_2$ , where 0.160 is the partial regression coefficient of X1 and 0.361 is the partial regression coefficient of X2. The above regression equation states that for each unit increase in service failure, the estimated loyalty is decreased by 0.160 and for each unit increase in the service recovery, the loyalty is increased by 0.361. Since p-value for service failure and service recovery is less than or equal to 0.01, it is proved that the service recovery variable partially mediates between service failure and shipper’s loyalty. Also, the R square and the significance of F statistic explains that the model provides a good fit.

**CONCLUSION**

This study has highlighted the importance of service recovery in freight forwarding industry. Moreover, it provided the insights into the type of service failures prevailing in the freight forwarding and the relationship between these service failures. Service failures are more prevalent in the service sector, when these service failures are overcome by providing proper service recovery solution, it enhances the loyalty of the shipper. The service recovery plays a partial mediating effect between the service failure and Shipper’s loyalty. So, the increase in the service recovery will lead to an increase in the loyalty of the shipper and thus enhances the number of loyal customers to the freight forwarder.

**Conflict of Interest:** Nil

**Source of Funding:** Self

**Ethical Clearance:** Nil

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