

Evaluation of main factors affecting the choice of a freight forwarder: A Sri Lankan exporter's perspective

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Abstract - The intermediary role performed by freight forwarders in exportation has become significant in fulfilling businesses' supply chain needs in this dynamic world. Since the success of exporter's business is at present, highly reliant on supply chain optimization, cost efficiency, profitability, consistent service and responsiveness, the decision of selecting the most beneficial freight forwarder has become crucial for exporters. In order to identify and prioritize key factors which have affected the exporter's decision in selecting freight forwarders in Sri Lankan context, Sri Lankan export industry was stratified into 22 sectors based on commodity using stratified sampling technique. One exporter from each sector was then selected using judgmental sampling to have a sample of 22. Factors which were identified through a pilot survey, was organized under 6 main criteria. A questionnaire was basically developed as pairwise comparisons using 9-point semantic differential scale and comparisons were done within main criteria and sub criteria. After a pre-testing, interviews and e-mail questionnaire survey were conducted. Data were analyzed using Analytic Hierarchy Process to determine priority vectors of criteria. Customer service was found to be the most important main criterion for Sri Lankan exporters. It was followed by reliability and operational efficiency respectively. The criterion of the least importance was company background and reputation. While small sized exporters pay more attention to rate, reliability is the major concern among medium and large scale exporters. Irrespective of seniority of the exporter, reliability is given the prominence. Responsiveness is the most important sub criterion among Sri Lankan exporters. Consistency of judgments with respect to main criteria was verified through consistency ratio, which was less than 10%. Being more competitive, freight forwarders should come up with customized marketing strategies based on each target group's requirements and expectations in offering services to retain existing exporters and attract new exporters.

Key Words - *Analytic Hierarchy Process; Freight Forwarders; Main Criteria; Sri Lankan Exporters; Sub Criteria*

I. INTRODUCTION

A. Introduction to freight forwarders and exporters

Most definitions on freight forwarder emphasize the intermediary role performed by the freight forwarders in international trade. In addition to traditional freight forwarding services such as freight transportation and logistics, freight forwarders have extended their service offerings to custom-house brokerage, documentation, cargo insurance, legal advisory services, value added services and so forth to serve their customers; exporters and importers. The role of the freight forwarder at present has expanded as an advisor on overall transport costs, a partner in documentation, a facilitator in packing and loading of cargo on leanest transport mode and an agent in clearing cargo through complex customs procedures. Lifting of restrictions for international trade, open economy policies, growth in consumption which is backed by population growth, globalization and competition have amplified the requirement for more frequent and reliable distribution and tracking of cargo (Ballou 1998). Exportation can be considered as the major component in international trade. Exporter can be a person, a business or a country that sells products or services across national boundaries. As per reference [1], 'for a company with little international shipping expertise, the freight forwarder is the answer'.

According to Export Development Board (EDB) of Sri Lanka, Sri Lankan export industry has shown a growth of 6.2% in export earnings in 2013 when compared with 2012. It has further reported about a concentration of earnings in Sri Lankan export industry where 80% of export earnings were from 8 export sectors in 2013. Out of total exports in 2013, United States has absorbed 25% of exports of the country and 70% of the exports has been absorbed by 14 countries [2]. When it comes to freight forwarding industry in Sri Lanka, it has a history of 37 years up to date and Sri Lanka Logistics and Freight Forwarders Association (SLFFA) acts as the key professional body representing the

freight forwarding industry of Sri Lanka. As Sri Lanka Merchant Shipping Division has reported, there are more than 400 freight forwarding companies operating in Sri Lanka [3].

B. Significance and objectives of the research

Although there are several published research studies that could be found in foreign settings, it could be noticed that previous research on similar topic covering Sri Lankan setting are not in existence. Also, results of prior studies on selection criteria vary with the nature of the industry, changes in business environmental factors and time. Also, selection of less competent freight forwarder for the exporter's business results in adding extra costs and creating many problems to the competitiveness. Thus, the choice of the most suitable and beneficial freight forwarder has become a key success factor for exporters today. On the other hand, in order to assist freight forwarding companies (which are operated in Sri Lanka) in devising effective marketing strategies to retain existing and attract potential Sri Lankan exporters, main factors that Sri Lankan exporters consider in choosing a freight forwarder should be identified and prioritized aiming at the particular industry. To facilitate both parties, a study on evaluation of main factors affecting the choice of a freight forwarder from the perspective of Sri Lankan exporters was identified as a requisite to be researched. Identification of knowledge gap led to the formulation of the research problem upon which three research objectives were set;

Research Problem:

What are the main factors affecting the choice of a freight forwarder, from the perspective of exporters in Sri Lankan context?

Research Objectives:

1. To identify key factors which affect the exporter's choice of freight forwarders in the current industry
2. To rank the identified factors, by importance
3. To advise freight forwarders with the results of the study in order to assist them in devising effective marketing strategies to retain existing and attract potential Sri Lankan exporters

II. LITERATURE REVIEW

The majority of exporters at that time, made the choice on freight forwarder within a very little time of less than two hours and between three to five options by using three to five sources. More focus was given to preferred freight forwarders and/or reputed experts in the industry. Word of mouth was a powerful source at that time [4]. Among Irish shippers, the most important selection factor was time/punctuality [5]. Using principal components analysis under factor analysis; Reference [5] has emphasized fast

response to problems aroused and punctuality of the transport service as the requisites for shippers' freight forwarder selection decisions. Among American customers, reliability is the most significant factor which is followed by expertise, company size, experience with customer's products, convenience, and geographic deployment and so on. There, price has been ranked in the eighth place [6]. Among Norwegian exporters, cost factors were found to be the most significant [7]. Latest research studies emphasize reliability as the most important choice criterion [8]. Therefore, not like in the past, shippers spend more time on selecting of freight forwarders and invest in more sophisticated methods of choice. He further revealed that the shippers are continually updated with new criteria in order to be more effective in making the choice of freight forwarders, when compared with the past. Few researchers [8] have come to the conclusion that cost is an important factor for shippers in selecting a freight forwarder in the twentieth century. In contrast, most of the researchers [9] have emphasized the significance in qualitative factors such as reliability, information accuracy in freight forwarder choice.

Greek exporters rank reliability, cost, specialization in specific products, personal care for the customer and area covered (in order) as the criteria of choice on freight forwarders [10]. It further argued that the reputation or the status of freight forwarder does not always imply the better level of service, but implies higher cost involvement in service offerings to the shippers. Reference [11] has identified reliability, as the major concern towards freight forwarders among Greeks. Since the exportation of commodities is risky and involves substantial costs in nature, reliability has become a foremost expectation among exporters. As per the criteria of choice that were listed based on average significance, quality had a higher rank than lower price offerings in Greek context. Using factor analysis, reliability of the forwarding service has been recognized as the most important factor, while meeting deadlines, offering competitive prices were the other main factors in Israel context. [12]. Premeaux has carried out a research on the factors affecting the selection of international freight forwarder as perceived by the customers in the United States in 2001 in comparison with 1991. It was shown that customers of international freight forwarders were more concerned on access to information, customer relations and availability of services [13]. Reference [14] has emphasized the importance of selecting a freight forwarder who is accredited. He highlighted the importance of having a financially stable freight forwarder from whom exporter can request credit facility. He advised shippers to make sure the legal compliance of the freight forwarding company before partnering up. The criteria which have been considered in selecting freight forwarders have differed according to both exporter specific and country specific characteristics namely exporter's scale, seniority, business objectives, industry trends at national level, economic conditions of the country and so on [12].

III. METHODOLOGY

A. Research Design

Research problem was addressed by three research objectives. The data collection process was developed in two stages. As the first stage, factor identification was done through a pilot survey and a detailed literature review. They facilitated the second stage which consisted of a mail questionnaire survey and interviews and were regarded as main primary data collection tools. The research can be considered as a descriptive research, since with aid of data which were gathered on population; the situation as to how Sri Lankan exporter selects a freight forwarder is described.

B. Sampling

Regardless of the export sector or the products exported, all export companies which are operating in Sri Lanka and currently using freight forwarding services were identified as the target population. Although there are 26 export sectors as categorized by Sri Lanka Export Development Board, 4 export sectors are service based and thus there is no involvement of freight forwarders. Therefore, only 22 export sectors were considered in data collection (TABLE I). Stratified sampling technique was used to come up with 22 strata and each stratum consisted of companies which are specialized in exporting a particular commodity type. From each sector/stratum, revenue wise top 5 exporters were listed and then one exporter from each stratum was selected using judgmental sampling to create the sample. The judgment was drawn up based upon an assumption; that was, larger the sample elements in revenue generation, higher the aggregated market representation will be from them and thereby, there will be less sampling errors.

TABLE I. STRATIFICATION OF THE POPULATION

	Export Sector / Stratum
1	Apparel
2	Coconut & Coconut Based Products
3	Rubber & Rubber Based Products
4	Fish & Fisheries Products
5	Spices & Allied Products
6	Tea
7	Food & Other Beverages
8	Footwear & Leather Products
9	Printing & Stationery
10	Electrical & Electronics
11	Fruits & Vegetables
12	Giftware & Lifestyle Products
13	Ayurvedic & Herbal Products
14	Handloom
15	Base Metal Products
16	Ceramics & other Mineral Based Products
17	Petroleum Products
18	Chemical & Plastic Products
19	Ornamental Fish
20	Floriculture
21	Toys, Games & Sport Requisites
22	Wooden Products

Source: Export Development Board of Sri Lanka, 2014

C. Data Collection

In order to identify factors affecting freight forwarder choice, prior to main questionnaire design, a pilot survey was conducted over the telephone with 10 exporters who were representing different export sectors of Sri Lanka. Prior studies were also played a key role in factor identification. Identified 38 factors were reduced to 24 factors, by considering similarities and varieties and they were then used as sub criteria in the questionnaire and AHP (Analytic Hierarchy Process) Hierarchy. In the questionnaire, questions were basically designed as pairwise comparisons using 9-point semantic differential scale in order to obtain comparative judgments from respondents.

A cover page was attached to the questionnaire which consisted of 4 parts. Questions in Part II (evaluation of main criteria) and Part III (evaluations of sub-criteria under each main criterion) were designed as pairwise comparisons. It was assumed that there is no relationship between sub criteria (under two different main criteria) and there is no relationship between a sub criterion and a main criterion in order to conveniently use the AHP technique over Analytical Network Process (ANP technique) which is the major substitute to AHP, but with more complexities in applying for real world applications. The number of pairwise comparisons needed to be performed is denoted by;

$$n(n-1)/2 \quad (1)$$

where n = number of criteria [15].

Other parts comprised a mix of open ended and closed questions. Pre-testing was conducted with 2 small-scale exporting companies and 2 medium size freight forwarding companies in Sri Lanka. Based on their feedback on the questionnaire wording, structure and flow of questions were subjected to modifications.

Then, questionnaire with a cover letter was submitted via email and interviews were conducted with each export company's responsible manager. When it was not possible to reach a particular exporter through one data collection method, the other method was used alternatively. A total of 10 viable responses were received via email with return rate 45% and 55% of the sample was interviewed.

D. Data Analysis

As a model for Multi Criteria Decision Making (MCDM), AHP was used to determine the relative importance of each criterion based on each respondent's judgments made on pairwise comparisons. In applying AHP as a main analysis technique in the research, the situation was first converted into a hierarchy (AHP Hierarchy) indicating main criteria and sub criteria. According to the hierarchy, questions were developed in the form of pairwise comparisons based on which Comparison Matrices

(Reciprocal Matrices) were obtained for main criteria and sub criteria. Mean value of respondents' comparative judgments were taken as inputs to form comparison matrices. After manipulating the comparison matrices, Normalized Principal Eigen Vector (Priority Vector) was obtained for each criterion and it indicated relative weight of each criterion.

In addition to main criteria analysis and sub criteria analysis, main criteria analysis was extended according to the scale of exporter's business and there, the number of employees in exporter's business was used as the differentiating variable. Similarly, respondents were categorized into two groups by years of experience in the export industry and prioritized main criteria per each group. In order to verify whether the judgments made by respondents on pairwise comparisons are consistent or not, an approach called Consistency Ratio (CR) was used along with the analysis. Human judgments are said to be acceptable when consistency ratio is less than 10%. In order to describe the sample that was used to gather data, descriptive statistical approach was employed and the sample was described under scale of business (company size), years of experience, legal form, decision level of freight forwarder selection, the nature of the exporter's relationship between freight forwarders and carriers, financial position, the reasons for most recent removal of a freight forwarder and application of freight forwarder evaluation and selection techniques.

IV. FINDINGS

As shown in TABLE II, customer service has been ranked as the most important main criterion with a priority weight of 51.9 %. It was followed by reliability with 44.5 %. The operational efficiency of the forwarder has been placed in third place by importance with 30.2%. It was followed by Information Technology (IT) orientation & communication (19.1%) and rate (11.2% and here, rate implies low rate offers, credit facilities, etc.) respectively. For Sri Lankan exporters, company background & reputation was the least important factor (7.5%) among the rest of the main factors. Consistency ratio for main criteria was less than 10% (8.6%) which indicated the consistency of judgments on pairwise comparisons.

TABLE II. RANKING OF MAIN CRITERIA

Rank	Main Criterion	Priority Weight
1	Customer Service	0.519
2	Reliability	0.445
3	Operational Efficiency	0.302
4	IT Orientation & Communication	0.191
5	Rate	0.112
6	Company background & Reputation	0.075

As per Fig.1, small sized export companies were more sensitive to rate over qualitative criteria with highest priority weight of 39.9%. Among medium sized exporters and large sized exporters, reliability was the most preferred main criteria (49.2% and 26.4% respectively) in selecting freight forwarders. Opposed to small scale exporters, rate (8.8%) was one of the less concerned criteria among large and medium sized players. Regardless of years of experience in export business, Sri Lankan exporters were most interested in reliability of the freight forwarding company and its services (Fig.2).

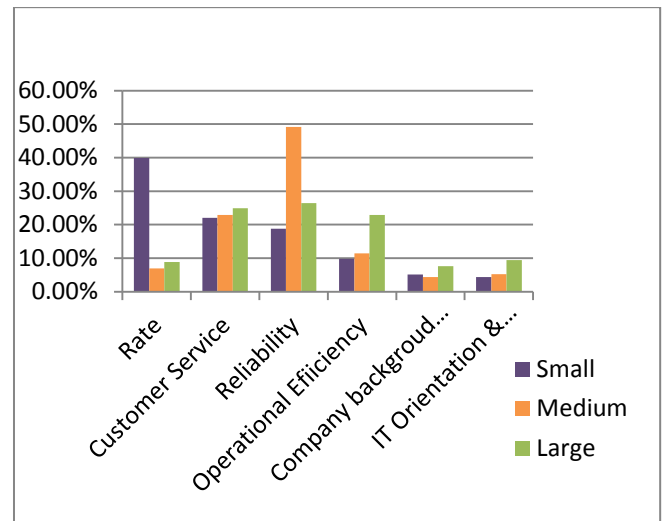


Fig.1. Priority weights of main criteria by scale of business of exporter

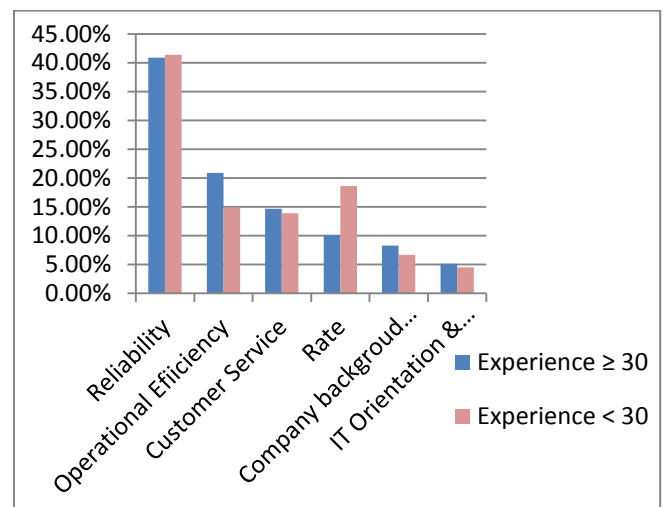


Fig.2. Priority weights of main criteria by years of experience of exporter

Information security, legal compliance, availability of resources, competent staff, advanced information technology systems and current customer base could be identified as the areas or the criteria that the non-Sri Lankan exporters did not specifically consider yet, but Sri Lankan exporters consider regarding freight forwarders choice decisions.

Responsiveness has been ranked as the most important sub criterion with a weighted score of 27.4%. Among respondents, meeting deadlines was the second most important criterion in selecting freight forwarders (26.5%). These top two, sub criteria alone formed more than 50% of importance (53.9%). They were followed by safe cargo handling (18%) and information security (13.7%) respectively, and low rate was in the tenth place with 8% of weighted scoring (TABLE III).

TABLE III. RANKING OF SUB CRITERIA

Sub Criteria	Weighted Score	Rank
Responsiveness	0.274	1
Meeting deadlines	0.265	2
Safe cargo handling	0.180	3
Information Security	0.137	4
Speed documentation	0.134	5
Flexibility	0.133	6
Global coverage	0.118	7
Customer Relationship Mgt.	0.112	8
On time delivery & pickup	0.095	9
Low rate	0.080	10
Legal compliance	0.039	11
Updated Information	0.033	12
Credit Facility	0.032	13
Availability of resources	0.031	14
Sound relationships	0.027	15
Financial stability	0.026	16
Location of forwarder	0.024	17
Competent staff	0.023	18
Advanced IT systems	0.020	19
Experience	0.014	20
Professional reputation	0.013	21
Customer base & key clients	0.008	22
Commodities handled	0.008	23
Shipment volume	0.005	24

Low rate, documentation, sound customer service, door to door service and credit facility were identified as the benefits experienced by Sri Lankan exporters who solely depended on freight forwarders, without having direct contacts with carriers. When it comes to the responsible management level of the export company in making the decision of selecting freight forwarders, middle management level could be identified as the dominant decision maker for the majority of respondent companies (64%). Non-price related reasons such as careless handling,

delays, documentation inefficiencies and poor customer service were the exclusive reasons for exactly a half of the respondents for eliminating freight forwarders from their business recently. All the respondents (100%) use some kind of evaluation and selection technique when selecting freight forwarders for their export business.

V. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

Customer service of the freight forwarder is given the prominence among Sri Lankan exporters in selecting an appropriate forwarder to export commodities. After giving the priority to customer service, they focus on reliability aspects of the freight forwarder. Since rate is on the fifth place on their list (out of 6 main criteria), it can be concluded that Sri Lankan exporters are more concern on service quality factors rather pricing factors in making selection decisions. When compared with medium and large scale exporters, small sized export companies are more interested in rate / pricing factors when seeking for a freight forwarder. And in contrast, medium and large exporters pay more attention on reliability factors. Regardless of years of experience in export business, exporters highly value reliability aspects of the freight forwarder. When it comes to sub criteria, responsive freight forwarder is the foremost expectation among exporters who are operating in Sri Lanka. A freight forwarder who is capable of meeting deadlines and safe handling of cargo is the successive areas of concern among the exporters in addition to responsiveness. Placing low rate in the tenth place provides evidence to the fact that there are more to consider for Sri Lankan exporters than pricing factors with regard to freight forwarder choice decisions.

Significantly, the majority of exporters (86%) have dual contact with freight forwarders and carriers and it indicates the exporters' perception on risk management. Low rate is the main advantage upon which Sri Lankan exporters exclusively dependent on freight forwarders rather having direct contacts with air and ocean carriers. It can be concluded that, irrespective of the scale of business, in majority of export businesses, middle managerial positions have been assigned the authority of making freight forwarder selection decisions. In the Sri Lankan context, major reasons for the dissatisfied exporters regarding freight forwarding service are non-price related. All most all the export companies operating in Sri Lanka use freight forwarder evaluation and selection techniques.

B. Recommendations

Exporters who are operating in Sri Lanka should seek for more responsive freight forwarders in the first place. Since the importance of selection criteria varies according to

nature of the export sector, country's regulations, time, exporter's size, degree of seniority, etc., it is advisable for exporter companies to be attentive on such dynamic changes in both industry and market. Moreover, upgrading existing freight forwarder evaluation and selection processes, updating selection criteria with changes, investing more time and money on frequent freight forwarder surveys are recommended. It will be worthwhile if freight forwarders can put efforts in innovating more efficient marketing communication modes namely word of web, social networks, email blasts, sponsoring events and so on over traditional modes of customer visits, industry magazines, etc. General marketing strategies adopted by freight forwarders will no longer be effective for retention of existing customers (exporters) and attraction of potential customers under the immense competition in the present freight forwarding industry. Freight forwarders should come up with customized marketing strategies based on each target group's requirements and expectations from the service. To attract large and medium scale exporters, freight forwarders need to concentrate on each determinant of customer service and reliability. To capture small scale exporters, offering freight forwarding services at competitive prices and also granting credit facilities, special offers are advised. Rather totally rely on the results of prior research studies; freight forwarder should conduct frequent surveys to identify the current market conditions. In order to experience a win-win situation, both parties should be well aware of the other party's requirements and business objectives.

Since exporters' perceptions towards freight forwarder selection criteria can be affected by the nature of the product exported, future research might assess whether there are differences in results from the export sector to sector by enlarging the number of respondents selected from each export sector of Sri Lanka. Potential researchers should focus on evaluating the choice criteria of exporters on regional and international settings as well. Since there are a few studies on the similar topic, it will be worth to broaden the research to different country settings and assess the degree to which the results differ from country to country within a same time frame. Since the present research examined the perception of shippers (customers of freight forwarders), future research can investigate the importance of factors from the standpoint of freight forwarders. Then it can be extended by comparing the two different perceptions between shippers and freight forwarders. The findings of such comparisons covering a particular country/region will create win-win situation for both freight forwarders and shippers in effective strategizing. Such multi-dimensional studies are important since a mismatch existing between service providers and service users can affect user satisfaction [16].

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