Print ISSN: 2288-4637 / Online ISSN 2288-4645 doi:10.13106/jafeb.2019.vol6.no1.177

Outbound Service Quality at Wan Hai Lines*

Ha Nam Khanh Giao¹, Bao Trung², Pham Quang Truong³

Received: May 30, 2018 Revised: July 12, 2018 Accepted: November 17, 2018

Abstract

Service quality is still a new concept to those who works in shipping lines services since it has not been identified as a mandatory factor to increase competitiveness. Most carriers are currently offering services at the same level of price, transit time, equipment, etc. Thus offering a high quality service is the best way for a carrier to differentiate itself from its competitors in the market. The research aims to conduct an assessment on service quality at Wan Hai Lines (WHL) outbound services based on the SERVQUAL model, form of dimension-by-dimension analysis. This study was based on a survey of 135 people. The outcome is the service quality of WHL outbound services can be identified by three dimension(s): Empathy and Responsiveness, Assurance, and Reliability. It would help management to have an overall picture about the current service quality, and to find solutions to improve service quality following the recommendations. WHL managers need to recognize that "Reliability" has the strongest influence on customers' expectations, then come "Empathy and Responsiveness" and "Assurance". Therefore, board of managers should spend time looking carefully at each of the three dimensions, especially for the biggest gap between perceptions and expectations of three dimensions as well. Then the recommendations were raised.

Keywords: Wan Hai Lines, Service Quality, Outbound Services, SERVQUAL, Dimension-to-Dimension

JEL Classification Code: L22, L87, M31, M16.

The paper was presented initially at 2018 International Conference on Business and Economics (ICBE2018) and the 14th International Conference of KODISA that was held in Seoul, South Korea, June 25-27, 2018. The paper has been recognized as one of Best Paper Awards at ICBE2018 conference. This paper is a substantially revised and expanded version of the paper presented at ICBE2018 conference. The authors have taken into account all the comments of Editors, Session Chairs and Reviewers in the revised manuscript. The authors greatly appreciate Editors, Session Chairs and Reviewers for their valuable comments, interest in and support of this research.

1. Introduction

After a long period of constant growth rate of 8-9% per year, world transportation demand decreased by 3% in 2009 and it is estimated increase at an average annual rate of 6-7% in 2010s. Concerning in the shipping providers, the world total number of vessels increased by 7.8% in 2016 but productivity was at the lowest level the same as 1980s and unfortunately this trend seems was likely to continue in 2017. In 2017, the growth of international trade is expected to increase by 2.4%. But shipping supply is still higher than demand. This situation could be explained due to stiffer competition among carriers recently. WHL was founded in 1965 and now they have agents all over Asia's major cities and ports. WHL established an agent in Ho Chi Minh city (HCMC) Vietnam in 1993; currently, it offers shipping services between HCMC and Taiwan, Japan, Korea, Singapore, Thailand, Hongkong, China, Malaysia, Indonesia, Middle East, India, Black Sea, EU, USA, etc. WHL transfers all kinds of dry and reefer shipments, except some dangerous cargoes like: poison, weapon...

¹ First Author and Corresponding Author. Associate Professor, Director of the Institute of Applied Economics, University of Finance – Marketing, Ho Chi Minh City, Vietnam [Postal Address: A65 Nam Thong 1 Quarter, Phu My Hung, Tan Phu Ward, District 7, Ho Chi Minh City, 700000, Vietnam]

Tel: (84) 903306363 E-mail: khanhgiaohn@yahoo.com

² Associate Professor, Head of Department of Science Administration, University of Finance - Marketing, Ho Chi Minh City, Vietnam.

³ Ph.D. candidate, Lecturer, School of Business Administration, Saigon International University, Ho Chi Minh City, Vietnam. E-mail: truonghappy@gmail.com

To survive and grow in this competitive environment, WHL needs to realize how to develop the potential outbound shipping services. This research is conducted to help WHL to improve service quality of outbound service. We use SERVQUAL model which is developed by Parasuraman, Zeithaml, and Berry (1988) to recognize the gaps between customers' expectation and perception, and find out solutions to close these gaps.

2. Theory Base

2.1. Characteristics of Service

There are many definitions of service. Kotler, Armstrong, Saunders, and Wong (1999) mentioned that a service is any activity or benefit that one party can offer to another which is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product, while Adrian (2001, p.2) claimed "Service is anything that cannot be dropped on your food". The characteristics of service made it differ from physical goods. It includes four main features: intangibility, heterogeneity, perishability, inseparability of production and consumption (Parasuraman et al., 1988).

2.2. Definition of Service Quality

Service quality is a highly abstract construct, where all the characteristics are different from goods. Service quality based on perception concept is developed by Parasuraman et al. (1985, 1988) with five gaps. They proposed SERVQUAL model in which service quality is a function of differentiating between expectation and performance along with the quality dimensions. They developed the gap model in which they defined perceived service quality "as the degree and direction of the discrepancy between consumers' perceptions and expectations". The model predicted that perceive service quality could be quantified by the measurement of subtracting the consumers' rating perception of service quality (P) and their rating expectation of service quality (E) calculated as Service Quality = P – E.

2.3. Measuring Service Quality

There were various service quality models proposed and applied in different contexts. For the purpose of this research, concepts and literatures related to SERVQUAL (Parasuraman et al., 1988). SERVQUAL is a multi-item scale, diagnostic methodology developed to assess customer perceptions of service quality in service and retail

businesses. The scale contains 22 items that were grouped into two set of statements: expectation and perception about the particular firm whose service quality was being evaluated. Furthermore, these items were grouped into the following five distinct dimensions: (Zeithaml et al., 1988)

- Tangibles: The appearance of physical facilities, equipment, personnel, and communication materials.
- Reliability: The ability to perform the promised service dependably and accurately.
- Responsiveness: The willingness to help customers and provide prompt services.
- Assurance: The employees' knowledge and courtesy, and the ability of the service to inspire trust and confidence.
- Empathy: The caring, individualized attention the service provides its customers with.

SERVQUAL model works on basic formula which is described as service quality = Customers' Perceptions (P) – Customers' Expectation (E) or in short Q = P – E. The 22 statements corresponding to five dimensions will be used as questionnaire to ask about the customers' expectations and perceptions. Using 1-5 Likert scale, grading it from 1 (strongly disagree) to 5 (strongly agree), the score for each statement is recorded for data analysis. The results are then being/blank used to identify positive and negative gaps in the performance perceptions of five service quality dimensions of a firm, mentioned above. The gap of performance-expectations is considered service quality for each dimension, and is evaluated as below:

$$SQ_{j} = \frac{\sum_{i=1}^{nj} P_{ij} - E_{ij}}{nj}$$

Where following stands for:

SQj - Service quality of a dimension j

Eij - Company's expectations for an item and which relates to a dimension j

Pij - Company's perceptive performance for an item and which relates to a dimension j

nj - The number of items for a dimension j

Francis (1995) indicated that analysis of SERVQUAL data can take several forms: item-by-item analysis (e.g. P1 – E1, P2 – E2); dimension-by-dimension analysis (e.g. (P1 + P2 + P3 + P4/4)- (E1 + E2 + E3 + E4/4)), where P1 to P4, and E1 to E4, represent the four perception and expectation statements relating to a single dimension); and computation of the single measure of service quality ((P1 + P2 + P3 + + P22/22)- (E1 + E2 + E3 + + E22/22)), the so-called

SERVQUAL gap. This research is a dimension-by-dimension analysis.

2.4. Service Quality in Shipping Industry

The function of shipping is the conveyance of goods from where their utility is low to a place where it is higher. The factors influencing the shippers' choice of transport mode has changed dramatically during the past decade. Today it is based on the total product concept embracing all the constituents of distribution, logistically driven. These include reliability, frequency, cost, transit time, capital tied up in transport, quality of service, packaging, import duty, insurance and so on.

Mehta and Durvasula (1998) used SERVQUAL to measure service quality in ocean freight services. The findings have important implications for shipping lines' marketing strategies. Though having been conducted in Singapore, the study is equally applicable to other Asian environments and newly industrialized countries where many of the same lines are offering freight services to the exporting organizations. Then, Durvasula, Lysonski, and Mehta (1999) did a survey to test the SERVQUAL scale in the business-to-business sector and the case is about ocean freight shipping service. The findings showed that the service quality measures developed for consumer services can be applied in business-to-business marketing. Durvasula et al. (1999) supported five dimensions of Parasuraman but they also claimed that five dimensions are not totally independent; responsiveness, assurance and empathy can be combined into one dimension which could be called satisfactory.

Ruth, Nipawis, and Paitoon (2005) used the SERVQUAL model as the initial to identify critical factors that could affect the decision making process of logistics service provider (LSP) selection. Then, Vinh (2007) did a survey to study conceptual model and empirical evidence of service quality in maritime transport. He tested a new model of service quality in maritime transport and especially, this model was verified by empirical study in Vietnam. The results of this study showed that the quality of shipping service is mainly constructed by six dimensions: Resources, Outcomes, Process, Management, Image, and Social responsibility. Sakas (2008) proved the gap that emerges in the Greek's shipping transportation system when it comes to quality issues by using the SERVQUAL model as a starting point. Chalermkiat and Thananya (2008) used SERVQUAL as a base to compare customers' perception towards service quality in shipping lines and found that even though 4 countries of Singapore, Vietnam Cambodia and Thailand still used 5 dimensions from SERVQUAL but the order of importance in each country is quite different from each other. Kolanovic, Skenferovic, and Zenzerovic (2008) collected information in Croatia and applied SERVQUAL, together factor analysis (both exploratory and confirmatory) to define the factors affected the port service quality. Through structural analysis, they found that reliability and competence happened to be best explained by the attributes presented.

Chang, Lee, and Tongzon (2008) used SERVQUAL as initial model to indentify five port choice categories: advancement/convenience of the port, physical/operational ability/abilities of port, operational condition of shipping lines, marketability, and port charge. Chen, Chang, and Lai (2009) extended the gaps model of Zeithaml, Parasuraman, and Berry (1990) from the service provider to the business customer side by examining two service quality (SQ) gaps. One is the SQ gap between types of business customers and the other is the SQ gap among employee statuses of business customers. Besides that, the five-factor SERVQUAL measured as the initial hypothesized model is also tested. Currently, Zhou, Zhang, and Chen (2010) provided a system of quality evaluation for freight forwarding service (FFS) developed from SERVQUAL, which composed of 5 dimensions and 17 items. And then the customers' perceived quality of the FFS they received was measured using by fuzzy comprehensive appraisal. Concurrently, Lobo (2010) analyzed shippers' evaluations of the various service delivery components of their most preferred shipping line in Singapore, one of the leading container ports in the world, and can be applied in the Asia-Pacific market.

3. Research Methodology

The qualitative research was carried out by face-to-face interview. A focus group with some specialists in shipping fields, WHL's managers; colleagues and regular customers has been created. The main objective is was to collect feedback regarding the proposed questionnaire. When developing the statement and dimension definitions, the SERVQUAL statements will be adapted to reflect the service quality aspects of WHL. Then the pilot test was run to test the concepts. The outcome of qualitative research is the final questionnaire for the quantitative research. After all, there are other five factors (as below Table 1) which should be mentioned in the research related to the shipping lines in Vietnam.

Table 1: Five more items beside 22 original items of SERVQUAL

	Items
1	Staff at an excellent carrier provides promptness in answering telephone (less than three rings).
2	Staff at an excellent carrier provides documentation quickly and correctly.
3	Assistance on closing time extension of excellent carrier is high.
4	Customers should be kept informed timely if there is any trouble during transit time (ex: rotation, delay, requirement of shipper, consignee)
5	Shipments carried by an excellent carrier arrive at destination at right time.

The questionnaire was then built at 5 point Likert-scale. The quantitative research is executed by collecting data through questionnaire survey. Data would be analyzed by the mean of SPSS software. After processing and adjusting the data, data will be analyzed for further research steps. Based on the questionnaire, which consists of 27 statements related to service quality of WHL HCMC, the sample size is estimated to be around 135 (Nunnally, 1988). The survey will focus on all WHL's customers who have made transactions many times. Data collected need to be processed and analyzed for further research purposes.

These following steps will be done through the data processing: Firstly, using Cronbach's alpha to test the reliability and validity of scale and variables (items). Correlation-to-total index of each item is checked and disposed if this value is smaller than 0.3. The scale is acceptable if Cronbach's Alpha is greater 0.6 (Nunnally, 1988); Secondly, applying Factor Loading to check the factorial structure suitableness of the models. Kaiser-Meyer-Olkin (KMO) and Bartlett's test of Sphericity indicators will be checked to see whether data fulfills necessary conditions to be grouped into smaller sets of underlying factors. KMO is valid if its value is equal or greater than 0.5; finally, analyzing data and concluding the findings based on the methodology of dimension-bydimension analysis (Francis, 1995; Giao & Huy, 2009; Giao & Phương, 2010).

4. Data Analysis and Results

Data were gathered from a sample of 196 respondents. At the end of the survey, 149 questionnaires were collected corresponding to the response rate of 72.4%. Nevertheless, among the returning data, only 135 questionnaires were available to analyze as they provide enough information for analysis, 14 of questionnaires were omitted due to specific reasons.

4.1. Responses of Expectations

The overall mean value of twenty-seven items of expectation is high, the highest expectation item was E1 "Carrier should have up-to-date equipment (empty containers; empty depot, etc.)" with Mean = 4.6296 and the lowest item of expectation (Mean = 3.8815) was E14 "Staff at an excellent carrier provides promptness in answering telephone (less than three rings)". Table 2 shows the top five highest expectation items.

Table 2: Top five highest expectation items

	Items	Mean
E1	Carrier should have up-to-date equipment (empty containers; empty depot, etc.).	4.6296
E4	Carrier has many agents and offices so that they can arrange shipments smoothly.	4.4889
E6	When a customer has a problem, carrier will show a sincere interest in solving it.	4.6222
E12	Staff at an excellent carrier always be willing to help customers. 4.	
E22	E22 Shipments which are used excellent carrier arrive at destination at right time.	

4.2. Respondents of Perceptions

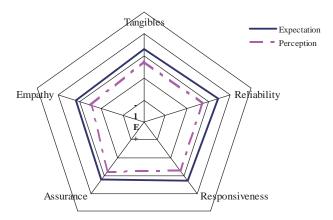
In general, mean value of all variables of perception is above average, the highest expectation item was P21 "Customers of WHL are kept informed timely if there is any trouble during transit time (ex: rotation, delay, requirement of shipper, consignee, etc.)" with Mean = 3.9185 and the lowest item of perception (Mean = 3.3037) was P14 "Staff at WHL provides promptness in answering telephone (less than three rings)". Table 3 shows the top five highest perception items.

Table 3: Top five highest perception items

	Items		
P7	WHL performs the service right at the first time.	3.8741	
P11	Staff at WHL provides service quickly and correctly.	3.8889	
P12	Staff at WHL are always willing to help customers.	3.8519	
P18	Customers of WHL feel safe during their transactions.	3.8815	
P21	Customers of WHL are kept informed timely if there is any trouble during transit time (ex: rotation, delay, requirement of shipper, consignee, etc.)	3.9185	

The spider chart (Figure 1) shows the average mean values of both expectations and perceptions which was the trend of customers whose expectation to/for excellent carrier and perception about current WHL service. In general, the

perception is smaller than expectation for all service quality items.



- 1 = Strongly Disagree
- 5 = Strongly Agree

Figure 1: Expectation and perception of WHL's customers

Regarding the reliability analysis, the result shows that Cronbach's alpha value is 0.878, and the total Correlation of E16 "Assistance on closing time extension of excellent carrier is high" equals to 0.268 which is less than 0.3, so this item should be removed from the list for next analysis (Nunnally, 1988). It expresses that closing time extension is not important as a factor of service quality or service quality could be improved without implying closing time extension.

4.3. Exploratory Factor Analysis

The Principle component analysis and the Varimax rotation method were used, three new factors were withdrawn from 15 variables; Kaiser-Meyer-Olkin Measurement of Sampling Adequacy was 0.766 and the significant at .000, so it can be concluded that sample was

suitable for factor analysis. Besides, these items explained 56.642% of the overall variance and Eigenvalues of three new factors are greater than 1.0. Moreover, all of new factors with loading factor greater than 0.5 (smallest score is 0.545) were acceptable. The three new factors (Table 4).

Table 4: Factors loading of 3 new dimensions

	Component		
	1	2	3
E23	.762		
E11	.692		
E26	.663		
E12	.645		
E25	.611		
E27	.545		
E18		.812	
E19		.771	
E17		.711	
E20		.683	
E7			.855
E8			.745

To determine the reliability of three new factors (see Table 5), reliability analysis was carried out to evaluate the Cronbach's alpha values of the three factors, and the results are as follows: Factor 1 0.777, Factor 2 0.751, Factor 3 0.690, all are considered sufficient. In Factor 1, except E11 and E12, the other variables belong to Empathy dimension in the original model, so we name the first new factor as "Empathy and Responsiveness". In factor 2, all four items E18; E19; E17, E20 belonged to Assurance dimension of the original model, so we name the second new factor as "Assurance". All items of factor 3 (E7 and E8) are Reliability dimension in the original model. So, we keep their name for the new factor "Reliability".

Table 5: Summary of Three Factors

Variables	Items Original dimension		Items Original dimension		Items Original dimension		Items Original dimension		s Items Original dimens		Items Original dimensio		Items Original dimension		Items Original dimension		ables Items C		Cronbach's Alpha
E23	Carrier has employees who give customers personal attention.	Empathy																	
E11	Staff at an excellent carrier provides service quickly and correctly.	Responsiveness																	
E26	Carrier should give customers individual attention.	Empathy	0.777																
E12	Staff at an excellent carrier always be willing to help customers. Responsiveness		0.777																
E25	An excellent carrier will have the customers' best interests at heart.																		
E27	Carrier has working hour's convenience.	Empathy																	
E18	Customers of WHL feel safe in their transactions.	Assurance																	
E19	Staff at WHL will be consistently courteous with customers.	Assurance	0.751																
E17	The behavior of staff of WHL will instill confidence in customers.	Assurance	0.751																
E20	Staff at WHL has knowledge to answer customers' questions.	Assurance																	
E7	Carrier performs the service right the first time.	Reliability	0.690																
E8	Carrier provides its service at the time it promises to do so.	Reliability	0.030																

4.4 Gap between Customer Expectations and Perceptions

The gaps between expectations and perceptions of three new factors will be calculated in Table 6. The overall Gap scores of 12 attributes of service quality are all negative, means that the perception is smaller than expectation. The larger the gap, the more attention WHL needs to pay for the shipping service to satisfy its customers. The result shows that the Dimension "Empathy and Responsiveness" has the largest gap, -0.76, so WHL needs to analyze the attributes of this dimension well and try to close the gap. The smallest gap dimension is "Assurance", at -0.36, and the dimension "Reliability" takes -0.53.

Table 6: Gap score analysis of attributes of service quality at WHL

	Factor	Gap score (P-E)
	Factor 1: Empathy and Responsiveness	-0.76
E23	Carrier has employees who give customers personal attention.	-0.74
E11	Staff at an excellent carrier provides service quickly and correctly.	-0.53
E26	Carrier should give customers individual attention.	-0.93
E12	Staff at an excellent carrier always be willing to help customers.	-0.66
E25	An excellent carrier will have the customers' best interests at heart.	-0.91
E27	Carrier has working hour's convenience.	-0.76
	Factor 2: Assurance	-0.36
E18	Customers of excellent carrier feel safe in their transactions.	-0.20
E19	Staff at an excellent carrier will be consistently courteous with customers.	-0.33
E17	The behavior of staff of excellent carrier will instill confidence in customers.	-0.54
E20	Staff at an excellent carrier has knowledge to answer customers' questions.	-0.38
	Factor 3: Reliability	-0.53
E7	Carrier performs the service right the first time.	-0.48
E8	Carrier provides its service at the time it promises to do so.	-0.58

The variable E26 "Carrier should give customers individual attention" has the biggest gap value (-0.93) in Empathy and Responsiveness dimension. The expectation value of this variable is (4.23) but the perception is only (3.30), so the gap score is negative and it is also the biggest gap of all items of three new factors as well. Besides, item E25 "An excellent carrier will have the customers' best interests at heart" also has high gap score in this dimension (-0.91). So, E26 and E25 require very serious attention and improvement. The detail is shown as Figure 2. The gap

score of variables of factor Assurance is described as Figure 3.

Variable E17 "The behavior of staff of excellent carrier will instill confidence in customers" also has the highest gap score in Assurance factor (Gap score = -0.54). Another high gap score of E20 "Staff at an excellent carrier has knowledge to answer customers' questions" (-0.38) does not really meet customer expectation also. The gap score of variables of factor Reliability is described as Figure 4.

Gap score of variable E8 "Carrier provides its service at the time it promises to do so" (-0.58) is bigger than the gap score of variable E7 "Carrier performs the service right the first time" (-0.48) in Reliability factor. In addition, these findings show that WHL managers should focus and look carefully on each of "Empathy and Responsiveness" dimensions of service quality, where gap scores are bigger than three new factors (see Figure 4).

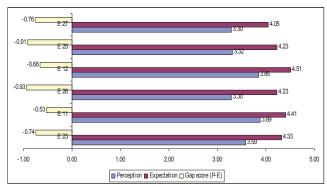


Figure 2: Gap score of Empathy and Responsiveness factor

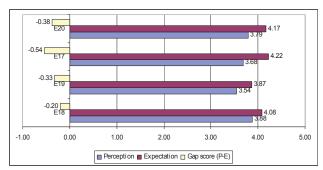


Figure 3: Gap score of Assurance factor

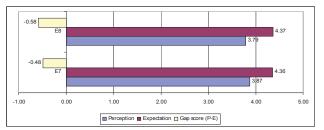


Figure 4: Gap score of Reliability factor

183

From five highest gap score items, the customers always expect to work with carrier who gives customers individual attention (E26) and the carrier should have the customers' best interests at heart (E25). Besides, working hour's convenience (E27) is also an important factor which attracts customers. Staff at a carrier should give personal attention to customers (E23) to understand customers' demands and export schedule in order to give customers' supports. They are also expected to be able to help their customers (E12) anytime (see Table 7). Table 9 also indicates that the expectations of customers are really high (greater than 4.0) but the perceptions scores are not high enough, so it leads to the highest gap score values. Especially, these items belong to factor 1 "Empathy and Responsiveness". The findings also suggest that WHL's managers should focus on these attributes which receive highest gap scores (see Table 7).

Except (E19), all the rest of the items have low gap scores as Table 8 have high expectations value (greater than 4.0), but the perceptions value are also comparably high, therefore the gap score are/is low. (E19) "Staff at an excellent carrier will be consistently courteous with customers" which is important to any kind(s) of service sector, has approximately similar score between expectation and perception, so it receives low gap score (see Table 8).

5. Recommendations

Recommendations are proposed based on gap score analysis of three new factors, in order for WHL to take actions to improve service quality.

Improving qualifications of employees:

Employees play an important role not only in serving customers but also in building up a company's good image and reputation. Regarding findings of this thesis, many items related to employees' qualities are mentioned: (E26) "Carrier should give customers individual attention"; (E8) "Carrier provides its service at the time it promises to do so" and (E7) "Carrier performs the service right the first time" are mentioned as company, but actually they are evaluated by the performance of managers and staff. Thus, improving qualifications of staff would be the best way to enhance performances.

Staff's attitude and behavior play the most important role in meeting customers' requirements to improve service quality. In fact, sales and customer services of WHL showed that the staff contact customers directly, deliver service directly to customers and at the same time receive suggestions and complaints from customers. It means that staff play a very crucial role in contributing to service quality. Therefore, improving the qualification of these staff will be the best way to enhance WHL's service quality image.

Improve sales skills:

Firstly, sales have to be professional; they have to be confident in WHL HCMC information and all related knowledge of the shipping industry, especially regarding competitors. Secondly, sales of WHL are suggested to be trained about company's situation and they have to be clear about company's vision, mission and target all the time. Especially, knowledge of company's strengths and distinctions_will help them retain existing customers and acquire new ones. Thirdly, sales at WHL HCMC should be sent to overseas offices to work for a period of time in order to gain experience and skills.

Table 7: Five highest gap score items

	Items	Perception	Expectation	Gap score (P-E)
E26	Carrier should give customers individual attention.	3.3	4.23	-0.93
E25	An excellent carrier will have the customers' best interests at heart.	3.32	4.23	-0.91
E27	Carrier has working hour's convenience.	3.3	4.05	-0.76
E23	Carrier has employees who give customers personal attention.	3.59	4.33	-0.74
E12	Staff at an excellent carrier always be willing to help customers.	3.85	4.51	-0.66

Table 8: Low gap score items

	Items	Perception	Expectation	Gap score (P-E)
E11	Staff at an excellent carrier provides service quickly and correctly.	3.89	4.41	-0.53
E7	Carrier performs the service right the first time.	3.87	4.36	-0.48
E20	Staff at an excellent carrier has knowledge to answer customers' questions.	3.79	4.17	-0.38
E19	Staff at an excellent carrier will be consistently courteous with customers.	3.54	3.87	-0.33
E18	Customers of excellent carrier feel safe in their transactions.	3.88	4.08	-0.2

Professional customer services:

Customer services staff are people who receive booking, inquiries...etc. from customers through telephone calls. Therefore, they need to be professional, friendly and helpful as well as have good manners so that they can serve customers enthusiastically and responsively. Besides, shippers must be kept informed with any new updates and they need to be trained how to solve problems with customers effectively. Moreover, shipping industry is service business, so every staff member of WHL has to be good at customer services, helpful and friendly with customers anytime. Last but not least, sales and customer service staff should closely cooperate with each other to serve customer better. They should give their customers individual attention so that they can meet customers' demands and customers' export plan and try their best to get customers' supports.

In addition, since WHL is a Taiwanese company and the majority of customers are Chinese or Taiwanese who may not speak English fluently, it is necessary that sales staff and customer services of WHL learn to speak Chinese correctly and fluently. Besides, WHL should develop training courses so that all of employees can modernize knowledge and improve working effectiveness. The training programs should include the importance of service quality; the expectations of customers and improving employees' performances to meet customers' satisfaction. Moreover, cross-assignment need to be carried out every six months at WHL so that employees can have chances to know more about overall service and meet all customers' inquiries and demands.

Enhancing customers' relationship:

Enhancing customers' relationship is the preceding solution and the most important thing, because it is also the competitive factor among carriers currently. Customers expects more from service than mere results, namely quality of support from the service provider. It is another reason whether customers will continue to support company's service or not. Therefore, through interaction, company can gain more information of customers' needs, customers' complaints and how to maintain customers' supports also enforce loyalty as well. If there is any complaint from customer, employees should concentrate on solving it first. Employees should always put themselves in customers' position and give customers individual attention with their empathy and better understanding. Due to characteristic of this kind of shipping service, shippers also need carrier's assistance during their trucking from their warehouses to ports. Therefore, WHL staff not only give assistance to customers during working time, but also sales forces should

be available by cell phone 24/24 so that customers can receive assistance during transit time.

Increasing effective process:

The current process at WHL HCMC still haven't met actual customers' expectations because of long time waiting for Bill of Lading (BL) issuing and invoice releasing. Wrong information on BL often occur at WHL HCMC because misstyping from documentation staff and documentation employees do not double check with customers and other departments. Moreover, customer cannot be satisfied with invoice releasing time as customers receive draft invoice late. The possible reasons could be the documentation section supplies information of shipment late and overload working of document staffs leads to more mistakes.

The (E11) "Providing service quickly and correctly" item does not have a low score of perception, but customers expect much more on this attribute (expectation score = 4.41). To execute an effective process, firstly, WHL HCMC should suggest customers to provide documents for BL issuing 12 hours after closing time at port immediately so that employees have time to make BL effectively and correctly. Secondly, documentation section at WHL has to provide shipments' information to accounting department on the departure date so that draft invoice can be sent to customers on time. Finally, new employees should be recruited for these positions in short term strategy so that customers can be served well overall company's service process.

6. Conclusions

This research shows that customers' expectations of WHL shipping service are/is influenced by three factors: "Empathy and Responsiveness"; "Assurance"; and "Reliability". WHL managers need to recognize that "Reliability" has the strongest influence on customers' expectations, then come "Empathy and Responsiveness" and "Assurance". Therefore, board of managers should spend time looking carefully at each of the three dimensions, especially for the biggest gap between perceptions and expectations of three dimensions as well. The research also proposes three main solutions to WHL for closing the gaps in order to improve service quality. As to improve the service quality, with the knowledge of shipping service quality dimensions, company's managers can evaluate how well the staff is performing on each dimension and also define the weakness for future improvements. The research has opened more space for further development which can be useful for service quality of shipping industry.

References

- Adrian, P. (2001). *Principles of services marketing* (3rd ed.). New York, NY: McGraw-Hill.
- Chalermkiat, T., & Thananya, W. (2008). *Ocean Transportation Service Quality Assessment*. Proceedings of the 13th International Symposium on Logistics, 6-8 July 2008, Bankok, Thailand.
- Chang, Y. T., Lee, S. Y., & Tongzon, J. L. (2008). Port Selection Factors by Shipping Lines: Different Perspectives between Trunk Liners and Feeders Service Providers. *Marine Policy*, 32(6), 877-885.
- Chen, K. K., Chang, C. T., & Lai, C. S. (2009). Service Quality Gaps of Business Customers in the Shipping Industry. *Transportation Research Part E: Logistics and Transportation Review, 45*(1), 222-237.
- Durvasula, S., Lysonski, S., & Mehta, S. C. (1999). Testing the SERVQUAL scale in the Business-to-Business Sector: The Case of Ocean Freight Shipping Service. *The Journal* of Services Marketing, 13(2), 132 - 152
- Francis, B. (1995). SERVQUAL: Review, Critique, Manchester Business School, Manchester, UK. *European Journal of Marketing*, *30*(1), 8-32.
- Giao, H. N. K., & Duy, H. B. (2009). Service Quality of outsourcing at Quantic Co., Ltd- a dimension-by dimension approach. Magazine of Sciences and Technology Development, 12, 56-70.
- Giao, H. N. K., & Phuong, L. A. (2010). Measuring the Service Quality at Binh Phuoc Hospital- a dimension-by dimension approach. *Magazine of Sciences and Technology Development*, 13, 31-43.
- Kolanovic, I., Skenferovic, J., & Zenzerovic, Z. (2008). Defining the Port Service Quality Model by using the Factor Analysis. *Pomorstvo*, 22(2), 283-297.
- Kotler, P., Armstrong, G., Saunders, J., & Wong, V. (1999). *Principles of Marketing* (2nd ed.). Upper Saddle River, NJ: Prentice Hall Europe.
- Lobo, A. (2010). Assessing the Service Quality of Container Shipping Lines in the International Supply Chain Network-

- Shippers Perspective. International Journal of Value Chain Management, 4(3), 256-266.
- Mehta, S. C., & Durvasula, S. (1998). Relationships between SERVQUAL Dimensions and Organizational Performance in the case of a business-to-business Service. *Journal of Business & Industrial Marketing*, *13*(1), 40 53
- Nunnally, J. C. (1988). *Psychometric Theory* (2nd ed.). New York, NY: McGraw Hill.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and its Implications for Future Research. *Journal of Marketing*, *49*, 41-50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, *64*(1), 12-40.
- Ruth, B., Nipawis, R., & Paitoon, V. (2005). *Selecting Logistics Providers in Thailand: a Shippers' Perspective.*Proceedings of the 10th International Symposium on Logistics, 3-5 July 2005, Lisbon, 568-573.
- Sakas, D. P., & Marina, T. (2008). Measuring Service Quality in the Greek's Shipping Transportation Sector: The Emerging Gap in Customers' Expectations and Perceptions. Proceedings of the International Conference on Marketing and Management Sciences, Athens, Greece, 23 - 25 May 2008, 280-284.
- Vinh, V. T. (2008). Service Quality in Maritime Transport: Conceptual Model and Empirical Evidence. *Asia Pacific Journal of Marketing and Logistics*, *20*(4), 493-518.
- Zeithaml, V. A., Parasuraman, A., & Berry, L. (1990). Delivering Quality Service: Balancing Customer Perceptions and Expectation. New York, NY: The Free Press.
- Zhou, W., Zhang, J., & Chen, H. (2010). Service Quality Evaluation for International Freight Forwarder. Proceeding of the 7th International Conference on Services Systems and Service Management, 28-30 June 2010, Tokyo, Japan.