MEASURING SERVICE QUALITY AT WAN HAI LINES OUTBOUND SERVICES

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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 the 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 outbound services based on the SERVQUAL model, form of dimension-by-dimension analysis. The outcome is the service quality of Wan Hai Lines outbound services can be identified by three dimension Empathy and Responsiveness, Assurance, and Reliability. It would help the management to have a clear and full picture about the current service quality, and to have the ways to improve service quality following the recommendations.

Keywords: Service quality, SERVQUAL model

INTRODUCTION

After a long period of constant growth rate of 8-9% per year, world transportation demand decreased 3% in 2009 and it is estimated to increase by 6-7% in 2010. Concerning the shipping providers, the world total number of vessels increased by 7.8% in 2009 but the productivity was at the lowest level as same as in 1980 and unfortunately this trend seems likely to continue in 2010. In 2010, 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.

Wan Hai Lines was founded in 1965 and now he has agents all over Asia's major cities and ports. Wan Hai lines established agent in Hochiminh city in 1993; currently, it offers shipping services between Hochiminh, Taiwan, Japan, Korea, Singapore, Thailand, Hong Kong, China, Malaysia, Indonesia, Middle East, India, Black Sea, EU, the USA, etc. Wan Hai transfers all kinds of dry and reefer shipments, except some

dangerous cargoes as poison, weapon, and the like.

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

THEORY BASE OF SERVICE QUALITY

Characteristics of Services

There are many definitions of service. Kotler et al. (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 fea-

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tures: intangibility, heterogeneity, perishability, inseparability of production and consumption (Parasuraman et al., 1988).

Definition of service quality

Service quality is a highly abstract construct, where all the characteristics are different to goods. Service quality based on perception concept is developed by Parasuraman et al. (1985, 1988) in a way of five gaps. They proposed SERVQUAL model in which service quality is a function of the differences between expectation and performance along 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 perceived 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.

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 was 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 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 to provide prompt service.
- **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.

SERVQUAL model works on basic formula which is described as: service quality (Q) = Cus-

tomers' 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 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:

SQ_j - Service quality of a dimension j

E_{ij} - Company's expectations for an item and which relates to a dimension j

P_{ij} - Company's perceptive performance for an item and which relates to a dimension j

n_j - The number of items for a dimension j

Francis (1995) indicates that analysis of SERVQUAL data can take several forms: item-by-item analysis (e.g. $P_1 - E_1, P_2 - E_2$); dimension-by-dimension analysis (e.g. $(P_1 + P_2 + P_3 + P_4/4) - (E_1 + E_2 + E_3 + E_4/4)$), where P_1 to P_4 , and E_1 to E_4 , represent the four perception and expectation statements relating to a single dimension); and computation of the single measure of service quality $((P_1 + P_2 + P_3 + \dots + P_{22}/22) - (E_1 + E_2 + E_3 + \dots + E_{22}/22))$, the so-called SERVQUAL gap. This research is a dimension-by-dimension analysis.

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 & Durvasula (1998) used SERVQUAL to measure of service quality in ocean freight services. The findings have important implications for shipping lines' marketing strategies. Though conducted in Singapore, the study is equally applicable to other Asian environments and new industrialized countries where many of the same lines are offering freight services to the exporting organizations. Then, Durvasula et al. (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. 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 et al. (2005) used the SERVQUAL model to identify critical factors that could affect the decision making process of logistics service provider (LSP). Then, Vinh (2007) conducted a survey to study the conceptual model and the 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 an 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 & Thananya (2008) used SERVQUAL as a base to compare customers' perception in service quality of shipping lines and found that even though four countries of Singapore, Vietnam Cambodia and Thailand still used five dimensions from SERVQUAL, the order of importance in each country is quite different from each others.

Kolanovic et al. (2008) collected information in Croatia and applied SERVQUAL together with factor analysis (both exploratory and confirmatory) to define factors affecting the port service quality. Through structural analysis, they found that reliability and competence happened to be

best explained by the attributes presented.

Chang et al. (2008) used SERVQUAL as the initial model to indentify finally five port choice categories: advancement/convenience of the port, physical/operational ability of port, operational condition of shipping lines, marketability, and port charge.

Chen et al. (2009) extend the gaps model of Zeithaml et al. (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 status of business customers. Besides that, the five-factor SERVQUAL measure as the initial hypothesized model is also tested.

Currently, Zhou et al. (2010) provided a system of quality evaluation for freight forwarding service (FFS) developed from SERVQUAL, which was composed of five dimensions and 17 items. And then the customers' perceived quality of the FFS they received was measured 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 for the Asia-Pacific market.

METHODOLOGY

The qualitative research was done by face-to-face interview. The focus group with some specialists in shipping fields, Wan Hai's managers; colleagues and regular customers has been chosen. The main objective is to collect the 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 Wan Hai. 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) should be mentioned in the research related to the shipping lines in Vietnam.

Table 1: Five more items besides 22 original items of SERVQUAL model

Items
Staff of an excellent carrier provides promptness in answering telephone (less than three rings).
Staff of an excellent carrier provides documentation quickly and correctly.
Assistance on closing time extension of an excellent carrier is high.
Customers should be kept informed timely if there is any trouble during transit time (ex: rotation, delay, requirement of shipper, consignee...)
Shipments shipped 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 questionnaires. Data would be analyzed by means 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 Wan Hai, the sample size is estimated around 135 (Nunnally, 1988). The survey will focus on all Wan Hai's customers who 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 than 0.7 (Nunnally, 1988); secondly, applying Factor Loading to check the factorial structure suitability 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 set 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-by-dimension analysis (Francis, 1995, Giao & Huy, 2009; Giao & Phương, 2010).

DATA ANALYSIS AND FINDINGS

Data were gathered from a sample of 196 respondents. At the end of 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

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 of 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 of an excellent carrier is always willing to help customers.	4.5111
E22	Shipments shipped by an excellent carrier arrive at destination at right time.	4.5407

Respondents of Perceptions

In general, the mean value of all variables of perception is above average, the highest expectation item was P21 "Customers of Wan Hai Lines 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 of Wan Hai Lines 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	Mean
P7	Wan Hai Lines performs the service right the first time.	3.8741
P11	Staff of Wan Hai Lines provides service quickly and correctly.	3.8889
P12	Staff of Wan Hai Lines is always willing to help customers.	3.8519
P18	Customers of Wan Hai Lines feel safe in their transactions.	3.8815
P21	Customers of Wan Hai Lines 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 an excellent carrier and perception of current Wan Hai service. In general, the perception is smaller than expectation for all service quality items.

Figure 1: Spider chart showing expectation and perception of Wan Hai'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 an 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

(Trọng & Ngọc, 2008). 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.

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 Measure of Sampling Adequacy was 0.766 and the significance 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) are acceptable. The three new factors with factors loading are set forth in Table 4.

Table 4: Factors loading of 12 items loading under three new dimensions

	Components		
	1	2	3
E23	0.762		
E11	0.692		
E26	0.663		
E12	0.645		
E25	0.611		
E27	0.545		
E18		0.812	
E19		0.771	
E17		0.711	
E20		0.683	
E7			0.855
E8			0.745

To determine the reliability of three new factors, reliability analysis was carried out to evaluate the Cronbach's alpha values of the three factors, and the results are as follows:

- (1) Factor 1 (included six variables E23; E11; E26; E12; E25 and E27): 0.777
- (2) Factor 2 (included four variables E18; E19; E17; and E20): 0.751
- (3) Factor 3 (included two variables E7 and E8): 0.690

Cronbach's alpha value of two first factors is

greater than 0.3 is just 0.692. In this analysis, the score of each item-Total correlation factors are three new factors.

Factor 1 (E12; E25 and E27) are variables of the original factor loading score 0.692. Basic pathy, so we can see that the results are satisfactory and Residuals are small.

In factor analysis, the three factors belonged to the model, so we can see that the results are satisfactory and Residuals are small.

All items dimension is their name: Factor 1 (E12; E25 and E27) are variables of the original factor loading score 0.692. Basic pathy, so we can see that the results are satisfactory and Residuals are small.

Gap between expectation and perception:

The gaps of three new factors are: Factor 1 (E12; E25 and E27) are variables of the original factor loading score 0.692. Basic pathy, so we can see that the results are satisfactory and Residuals are small.

-0.01
-0.91
-0.93
-1.00

greater than 0.7 while Cronbach's Alpha of factor 3 is just 0.690. Moreover, from aforementioned analysis, we can see that both of them have high score of expectation (E7=4.3556; E8=4.3704). Item-Total Correlation of all items related to three factors are greater than 0.3. Therefore, these three new factors are considered to be sufficient.

Factor 1 included six variables E23; E11; E26; E12; E25 and E27. Except A11 and E12, the other variables of factor 1 belong to Empathy dimension in the original model. E23 has the highest factor loading score (0.762); and E11 also has high score 0.692. Besides, E11 cannot have meaning of Empathy, 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 maintain their name for new factor "Reliability".

Gap between customers' expectations and perceptions

The gaps between expectations and perceptions of three new factors will be calculated in Table 8.

The overall Gap scores of 12 attributes of serv-

ice quality are all negative. This means that the perception is smaller than expectation. The larger the gap, the more attention Wan Hai needs to pay to the shipping service to satisfy its customers. The result shows that the dimension "Empathy and Responsiveness" has the largest gap, -0.76, so Wan Hai needs to analyze the attributes of this dimension well and try much to close the gap. The smallest gap dimension is "Assurance", at -0.36, and the dimension "Reliability" takes -0.53.

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 below:

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

Figure 2: Gap score of six items of Empathy and Responsiveness factor

Table 5: Summary of factor 1 (six items: E23; E11; E26; E12; E25 and E27)

Variables	Items	Original dimensions	Cronbach's Alpha
E23	Carrier has employees who give customers personal attention.	Empathy	0.777
E11	Staff of an excellent carrier provides service quickly and correctly.	Responsiveness	
E26	Carrier should give customers individual attention.	Empathy	
E12	Staff of an excellent carrier always be willing to help customers.	Responsiveness	
E25	An excellent carrier will have the customers' best interests at heart.	Empathy	
E27	Carrier has working hour's convenience.	Empathy	

Table 6: Summary of factor 2 (four items: E18; E19; E17 and E20)

Variables	Items	Original dimension	Cronbach's Alpha
E18	Customers of Wan Hai Lines feel safe in their transactions.	Assurance	0.751
E19	Staff of Wan Hai Lines will be consistently courteous with customers.	Assurance	
E17	The behavior of staff of Wan Hai Lines will instill confidence in customers.	Assurance	
E20	Staff of Wan Hai Lines has knowledge to answer customers' questions.	Assurance	

Table 7: Summary of factor 3 (two items: E7 and E8)

Variables	Items	Original dimension	Cronbach's Alpha
E7	Carrier performs the service right the first time.	Reliability	0.69
E8	Carrier provides its service at the time it promises to do so.	Reliability	

Table 8: Gap score analysis of attributes of service quality at Wan Hai lines

	Factors	Gap scores (P-E)
	Factor 1: Empathy and Responsiveness	-0.76
E23	Carrier has employees who give customers personal attention.	-0.74
E11	Staff of an excellent carrier provides service quickly and correctly.	-0.53
E26	Carrier should give customers individual attention.	-0.93
E12	Staff of an excellent carrier is always 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 an excellent carrier feel safe in their transactions.	-0.2
E19	Staff of an excellent carrier will be consistently courteous with customers.	-0.33
E17	The behavior of staff of an excellent carrier will instill confidence in customers.	-0.54

E20	Staff of 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

Table 9: Five highest gap score items

	Items	Perception	Expectation	Gap scores (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 of an excellent carrier always be willing to help customers.	3.85	4.51	-0.66

Table 10: Low gap score items

	Items	Perception	Expectation	Gap scores (P-E)
E11	Staff of 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 of an excellent carrier has knowledge to answer customers' questions.	3.79	4.17	-0.38
E19	Staff of an excellent carrier will be consistently courteous with customers.	3.54	3.87	-0.33
E18	Customers of an excellent carrier feel safe in their transactions.	3.88	4.08	-0.2

Figure 3: Gap score of four items of Assurance factor

Figure 4: Gap score of two items of Reliability factor

"Staff of an excellent carrier has knowledge to answer customers' questions" (-0.38) does not really meet customer expectation either.

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 gap score of variable E7 "Carrier performs the service right the first time" (-0.48) in Reliability factor.

In addition, these findings show that Wan Hai lines managers should focus and look carefully on each of "Empathy and Responsiveness" dimension of service quality, where gap scores are bigger across three new factors.

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 the important factor which attracts customers. Staff of carriers should give personal attention to customers (E23) to understand customers' demands and export schedule and get customers' supports. They are also expected to help their customers (E12) anytime.

Table 9 also indicates that the expectations of customers are so high (greater than 4.0) but the perceptions scores are not high enough, so it leads to highest score values. Especially, these items belong to factor 1 "Empathy and Responsiveness". The findings also suggest that Wan Hai's managers should focus on these attributes which receive highest gap scores.

Except (E19), all the rest items of low gap score as Table 10 have high expectations value (greater than 4.0), but the perceptions value are also good, therefore the gap score are low. (E19) "Staff of an excellent carrier will be consistently courteous with customers" which is important to any kind of

service sector, has approximate score between expectation and perception, so it receives low gap score.

RECOMMENDATIONS

Recommendations are proposed based on gap score analysis of three new factors, so that Wan Hai should have reactions to improve service quality.

Improving qualifications of employees

Employees play an important role not only in serving customers but also in building up the good image and reputation for the company. Regarding findings of this thesis, many items related to qualification of employees 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 managers and the performance of the staff. Thus, improving qualifications of staff would be the best way to enhance these 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 Wan Hai are showed in that the staff contacts directly with customers, deliver service directly to customers and at the same time receive suggestions and complaints from customers. It means staff plays a very critical role in boosting to service quality. Therefore, improving the qualification of these staff will be the best way to enhance Wan Hai's service quality image.

Improving sales skills

Firstly, salespersons have to be professional; they have to be confident in Wan Hai Hochiminh information and all related knowledge in shipping industry, especially about competitors. **Secondly**, the sales force of Wan Hai line 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 to remain and acquire existing and new customers. **Thirdly**, salespersons at Wan Hai Hochiminh should be sent to overseas offices for working in a period of time for getting more experience and skills.

Professional customer services

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Customer services staffs are those who receive booking, inquiries, etc. from customers through telephone calls. So, they need to be professional, friendly and helpful; and they should be educated about culture so that they can serve customers enthusiastically and responsively. Besides, all information of shippers has to be updated timely and they need to be trained how to solve problems with customers effectively. Moreover, shipping industry is service business, so every staff member of Wan Hai has to be good at customer services, helpful and friendly with customers any time. Last but not least, sales and customer service staff should closely cooperate with each other for better serving customers. They should give their customers individual attention so that they can meet customers' demands and export plan, and try the best to get customers' supports.

In addition, since Wan Hai line is Taiwanese company and most of foreign customers are Chinese or Taiwanese who are not proficient in English to communicate, it is necessary that sales staff and customer services of Wan Hai should learn to speak Chinese for smoother communication. Besides, Wan Hai should develop training courses so that all of employees can update knowledge and improve working effectiveness. The training programs should be including 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 Wan Hai so that employees can have chances to know more about overall service and can meet all customers' inquiry and demands.

Enhancing customer relationships

Enhancing customer relationships is priority solution and the most important thing because it is also the competitive factor among carriers currently. In addition, when consuming a service, customers not only receive characteristic of services, but also expect a good support from service provider during consuming time. It is another reason that whether customers will continue to support company's service or not. Therefore, through interaction, company can have more information of customers' needs, customers' complaints and how to maintain customers' supports and enforce loyalty as well. If there is any complaint from customers, employees should concentrate to solve it

first. Employees always put themselves in customers' position and give customers individual attention with a view to gaining 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, Wan Hai staff not only gives assistance to customers during working time, sales forces should be available by cell phone 24/7 so that customers can receive "assurance" during transit time.

Increasing effective process

The current process at Wan Hai Hochiminh still does not meet actual customers' expectations because customers have to wait for a long time for Bill of Lading (BL) issuing and invoice releasing. Wrong information on BL is often occurred at Wan Hai Hochiminh because miss-typing from documentation staff and because documentation employees do not double check with customers and other departments. Moreover, customer cannot satisfy invoice-releasing time because they receive draft invoice late. Besides, it may be because of lateness of documentation section in supplying information of shipment or work overload that leads to more mistakes.

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

CONCLUSIONS

This research shows that customers' expectations of Wan Hai shipping service are influenced by three factors: "Empathy and Responsiveness"; "Assurance"; and "Reliability". Wan Hai managers must recognize that "Reliability" has the strongest

influence on customers' expectations, then "Empathy and Responsiveness" and "Assurance". Therefore, board of managers should be looking carefully at each of three dimensions, especially for biggest gaps between perceptions and expectations of three dimensions as well. The research also proposes three main solutions for Wan Hai to close the gaps and improve its service quality.

In order to improve the service quality, with the knowledge of shipping service quality dimensions, company's managers can judge how well the staff is performing on each dimension and also define the weakness in order to get the improvement. The research has opened more space for further development which can be useful for service quality of shipping industry.

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