

A Customer Satisfaction Analysis on Marine Salvage and Towage Services at Southern Region of Malaysia

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Abstract

In today's competitive and dynamic business environment, delivering high quality service performance in marine salvage and towage industry is a key of winning competitive advantage. The objective is to measure the customer satisfaction level on the services provided by domestic salvage and towage companies in southern region of peninsular Malaysia. Cross Sectional Survey incorporation with interview sessions has used to the selected customers to determine their satisfaction level of the service quality delivery. The analysis shows that the overall service quality perceived by the customers is "Good" level, although some customers' expectations and requirements are not met.

Keywords: Customer Satisfaction; Marine Salvage and Towage; Maritime Business; Marine Service Quality; Maritime Operation Management

1. INTRODUCTION

A marine towage service has been available in shipping industry for many decades. This service is important in rescuing and assisting ship at port or sea. However, there is no significant research on effectiveness of services provided by domestic towage companies in southern region of peninsular Malaysia. Therefore, the objective of this research is to measure the customer satisfaction on services provided by the salvage and towage companies in the particular area. This is to prove that customer's satisfaction or feedback is important in measuring the exact benchmark that needed for this towage companies.

The distinction between salvage and towage is reflected in the different types of programs available to ship owners. Marine towage is a service provided to move vessels or their cargoes by using tugboats. While, Marine salvage is the act of saving things that have been or likely to be damaged or lost (Oxford, 2011). To perform this action, tugboats will be used to deliver either salvage or towage operation. For towage duties, harbour tugs will do the task and ocean tugs will carry out the salvage operation.

In Malaysia maritime industry, there are a few companies including those in the Southern region of Malaysia that provide these kinds of services but relatively small compared to other countries. For instance, Malaysian Towage and Transport Sdn. Bhd. handles and provides these services to the customers around the southern region by deploying tugboats to cater high demand from the customers, such as ports, shipyards or private jetties that handle water transportations.

Therefore, in gathering of the customer feedbacks will lead to a better understanding of the customers' satisfaction level. Through the data analysis process, the existence linkages between qualities attributes of salvage and towage service provider and customer satisfaction will be more obvious. The results of this study will not only contribute to the awareness of the relationship between the variables, but it has direct linked to salvage and towage companies concerning the service quality improvement. In fact, this research will also help in answering the question whether that customer satisfaction will determine the company's profitability and its sustainability of market in the industry.

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2. LITERATURE REVIEW

a) Customer Satisfaction

According to Drucker (1954), the business principle is to create satisfied customers. In general, customer satisfaction is multi-factorial and considered as a part of overall consumer behaviour model. Consumer behaviour evolves over time and is influenced by many factors. Several key factors that greatly influence satisfaction include consumer's expectations, attitudes, and intention about the service provided (Hallowell, 1996). Expectations are the consumer's anticipated beliefs about a product or service prior to the interaction. Attitudes consist of the consumer's evaluations, emotional feelings, and action tendencies toward a product or service that has developed over time (Bolton, 1998). Intentions are the decisions the consumer makes about future actions toward the firm producing the product or service. Together, these factors influence the future behaviour or the actual future action taken by the customer.

A firm's future profitability depends on satisfying customers in the present – retained customers should be viewed as revenue producing assets for the firm (Anderson *et al.*, 1993; 2000; Reichheld 1996). Empirical studies have found evidence that improved customer satisfaction need not entail higher costs, in fact, improved customer satisfaction may lower costs due to a reduction in defective goods, product re-work, etc (Anderson *et al.*, 1997).

However, the key to building long-term customer satisfaction and retention and reaping the benefits these efforts can offer is to focus on the development of high quality products and services. Customer satisfaction and retention that are bought through price promotions, rebates, switching barriers, and other such means are unlikely to have the same long-run impact on profitability as when such attitudes and behaviours are won through superior products and services (Anderson *et al.*, 2000). Thus, squeezing additional reliability out of a manufacturing or service delivery process may not increase perceived quality and customer satisfaction as much as tailoring goods and services to meet customer needs (Fornell *et al.*, 1996).

For a company to be successful in a long-term, they must focus on feedback gained from customer who used their services. This is because that there is a relation between customer satisfaction and profitability. A customer who received good value and services up to his expectations would likely to use the same service again. This can be done by giving greater products or services which some time can be beyond from their expectations. However, to achieve a better result, it is most important to suit or re-arrange the products and services itself in order to meet customer needs rather than improving the way the service were delivered.

Although it seems clear that increasing customer satisfaction is valuable to a marketing manager, how it is measured is less clear. Customer satisfaction has been studied from the perspective of the individual customer and what drives their satisfaction (Oliver and Swan 1989; Oliver 1993; Fournier and Mick 1999) as well as from an industry-wide perspective to compare customer satisfaction scores across firms and industries (Anderson *et al.*, 1994; Fornell *et al.*, 1996; Mittal and Kamakura 2001), while other research has examined customer satisfaction in a single organization (Schlesinger and Heskett, 1991; Hallowell 1996; Loveman 1998) or across several organizations (De Wulf *et al.*, 2001). In addition, specific tools for measuring customer satisfaction have been developed in the past, including SERVQUAL (Parasuraman *et al.*, 1988), SERVEPERF (Crorin and Taylor, 1992), and QUALITOMETRO (Franceschini and Rossetto, 1999). However, this proposal will focus on doing surveys and distributing questionnaires to measure customer's satisfaction.

b) Marine Salvage and Towage

According to the International Convention on Salvage (1989), marine salvage and towage is defined as "any act or activity undertaken to assist a vessel or any other property in danger in navigable waters or in any other waters whatsoever". Salvage often results in a "demand" for a percentage of the boat's post-casualty value sometimes a considerable amount of money. Towing in the other hand is any operation not involving immediate danger to the boat or to a legally protected marine environment. Even among salvors unanimity prevails in only two matters; that salvage centres upon saving property at risk at sea and reducing environmental damage, and that salvage is all the actions taken aboard and ashore to resolve a marine casualty and to save property at risk at sea (Milwee, 1996).

Marine towage is a complicated procedure which requires particular focus and details. Towing process involves tugboats and tow cables. The process of towing the vessels must be done in particular concern of not only the vessels, but also the crews and properties, the capability of tugboats carrying cargo, the sufficient power of tug to tow the vessel, detailed route planning to ensure the manoeuvring of the tow and the certainty of contingency

plan in case if bad weather occur. This marine salvage and towage services have to be performed according to the cabotage policy in order to prevent both operators and customers.

“Cabotage” is “coasting trade” or “coastal trade” that is a movement of cargoes and customers by ship between ports of the same coast or between ports of the same country and the exclusive reservation of the coasting trade of a country to ships that are operating under the flag of that country or to operate sea traffic within its coast. Therefore, a maritime cabotage law or act is a legislation reserving exclusively for a country’s national-flagged ships and national, navigation and trading within its coast or from port to port within the country. It is purely for the regulation of domestic and not for international shipping.

The maritime cabotage law may be in a single shipping legislation, or in a combination of two or more shipping legislations, of a country. Two types of cabotage laws being applied by different countries today as dictated by their national, strategic and commercial shipping interests and local situations are the strict and the relaxed or liberalised cabotage laws. In a “strict” maritime cabotage law, the three elements of restrictions are that only vessels that are built, owned, crewed and operated solely by citizens of the country are allowed to participate in domestic shipping trade to the exclusion of foreign-built, foreign owned or foreign-crewed and operated vessels. A maritime cabotage law is described as relaxed or liberalized if those three elements are, or any of them is, not strictly provided for to be met by the vessel participating in the cabotage, or there are some levels of foreign participation either in the ownership or building of the ships used and or in the nationality of the operators or the ships involved in the domestic shipping of a country (Igboke, 2006; Agocha, 2008).

The Malaysian Government has implemented a policy which reserves the transportation of goods in the domestic trades to ship flying the Malaysian Flag. This policy is necessary because only a small number of Malaysian registered ships were playing the coastal routes. The policy which reserves the domestic trade to its own flagged vessels is known as Cabotage Policy. It was implemented in Malaysia on 1 January 1980. To implement the policy, the Merchant Shipping Act 1952 (MSO 1952) was amended. With the amendment to the Merchant Shipping Act 1952, the Government provide for the appointment of a Domestic Shipping Licensing Board (DSLBB) to regulate and control the licensing of ship engaged in domestic shipping between any ports in Malaysia. The purpose is to encourage local participation in domestic by encouraging local registration of ships and local incorporation of companies participating in domestic shipping.

Domestic shipping as defined under the Merchant Shipping Ordinance 1952 means the shipment of goods or passenger and includes the towing and pushing in the cabotage trade, a license per vessel is required by a Malaysia citizen or company. For this reason, this will bring benefits to the salvage and towage companies in Malaysia.

3. METHODOLOGY

This section discusses the way of designing and conducting this research. It involves both theoretical and practical matters in the data collection process. For conducting this research methodology, there are several sequences of steps or stages have been carried out to ensure the objective of the project could be achieved and completed.

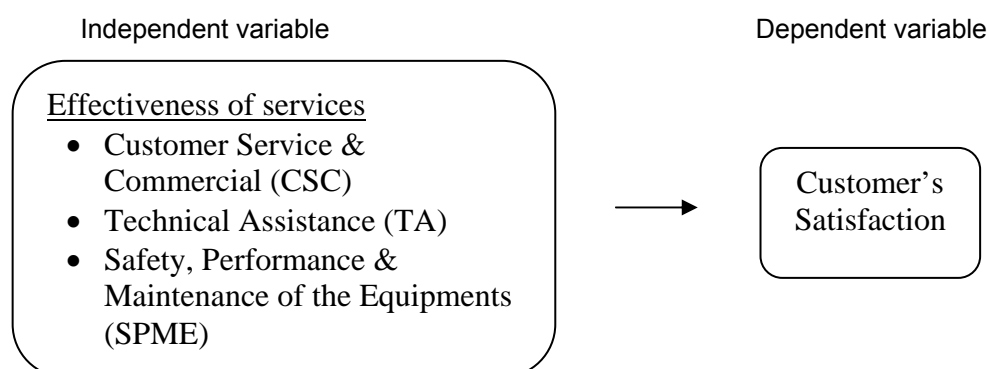


Figure 1. The interrelationship between independent and dependent variables

Figure 1 shows the interrelationship among the variables that is relevant to the phenomenon under study. The independent variable is effectiveness of services that containing of three (3) sub-variables; Customer Service & Commercial (CSC), Technical Assistance (TA), and Safety, Performance & Maintenance of the Equipments (SPME). The dependent variable is the level of customer satisfaction that resulted from the independent

variables. The theoretical framework is useful to hypothesize and analyze certain relationship in order to know how customer satisfaction in enhancing effectiveness of services provided by Malaysian towage and salvage companies in Southern region of peninsular Malaysia.

The population in this research includes all customers that have been using towage services from domestic companies who offering this services. This includes ports or shipyards and private jetty. While, the sample of this research is focused on the selected customers, such as ports or shipyards which is located at Malacca and Malaysian Marine Heavy Engineering (MMHE) that located at Johor. In each organisation have different departments that using the marine salvage and towage services in the focus area of study.

The type of survey used in this research is Cross Sectional Survey that involved process of collecting data at one point of time. Data collection methods like face-to-face interview and issuing the evaluation or questionnaire form are used. It is an important process in this study which is to obtain adequate and relevant data and it used in conducting survey and collecting statistical data. In addition, it is used to gather background information and to find details on the effectiveness of the services offered by these salvage and towage companies. This research will directly interview the customers that have been using services from these companies. With this process, it will get further information or the point of view in the effectiveness of these companies in delivering their services.

SPSS is a computer program used for statistical analysis. This analysis instrument will help to gather the data in order to determine the effectiveness of the services provided from the companies to their customers. This research statistic is one of the ways to overcome the results after questionnaire has been taken. It also can provide an overall view of the effectiveness of the services itself. T-test will be adopted to investigate the statement to give strong evidence and support the research objective. It also consists of two variables that will investigate in this study which is the effectiveness of the salvage and towage services and customer's satisfaction.

The data has analysed using a descriptive statistical method in SPSS software tool. It has used for initial analysis, checking the data validity and completing data analysis process. Also, it has used to calculate frequency, percentage and cumulative percentage to provide a general description of the respondents' responses to the concepts established in a conceptual framework. The formula for percentage as followed:

$$\text{Equation 1: Percentage : } \% = \frac{x}{N} \times 100$$

where: % = percentage, x = total scale that respondent answered, N = total respondents

$$\text{Equation 2: Sample mean} = \bar{x} = \Sigma x / n$$

where Σx is the sum of all the population observations, N is the number of population observations, Σx is the sum of all the sample observations, and n is the number of sample observations.

Frequencies are commonly used for the initial analysis of a data set. Frequencies provide statistics and graphical displays that are useful for describing all different types of variables. The Frequencies procedure can produce such statistics as: frequencies (counts), percentages, cumulative percentages, mean, median, mode, sum, standard deviation, variance, range, minimum and maximum values, standard error of the mean, skewness and kurtosis (both with standard errors), quartiles and percentiles. It can also produce bar charts, pie charts, and histograms. This analysis instrument helps to gather the data in order to determine the effectiveness of the services provided by the companies to their customers.

4. FINDINGS

The purpose of this section is to provide the findings in measuring the customer's satisfaction in marine salvage and towage services provided by Malaysian towage and salvage companies in Southern region of peninsular Malaysia. This research has been conducted in Malacca Port and Malaysian Marine Heavy Engineering (MMHE). There are 40 survey forms which have been collected from both companies. The overall discussion in this section is divided into 3 main sections according to the three independent variables described in Figure 1 as follows; Customer Service & Commercial (CSC), Technical Assistance (TA) and Safety, Performance & Maintenance of the Equipments (SPME).

i) Customer Service & Commercial (CSC)

There are six questions have been asked to the respondents in order to obtaining their feedback concerning the level of customer satisfaction in Customer Service & Commercial (CSC) part. The feedback of the first question (CSC1) is analysed using SPSS software tool and summarised in Table 1. In this case, majority of the respondents (55%) consider the degree of staffs' cautious and helpful in dealing with chartering as Excellent. The following percents of 42.5 and 2.5 percent, considers this criteria as Good and Satisfactory. No one have responds for Poor category. Finally, the total cumulative percent is 100% which represents 40 respondents.

Table 1. CSC1: Crew and staffs were cautious and helpful on dealing with chartering

	Frequency	Percent	Valid Percent	Cumulative Percent
Excellent	22	55.0	55.0	55.0
Good	17	42.5	42.5	97.5
Satisfactory	1	2.5	2.5	100.0
Poor	0	0	0	
Total	40	100.0	100.0	

The similar concept applies to all questions from Parts 1 to 3. For Part 1, all the six questions have combined and summarised in Table 2 for conducting the customer satisfaction analysis. Table 2 shows the assessment of the customer satisfaction analysis on the first independent variable "Customer Service & Commercial (CSC)". According to the customer satisfaction definitions described in Section 2, it obviously described that the "CSC" of the marine salvage and towage services in the Southern area of Peninsular Malaysia is categorised as "Excellent" (47.50%) with a total of 114 feedback (Q1:22 + Q2:23 + Q3:23 + Q4:7 + Q5:20 + Q6:19) out of 240 feedback (6 questions × 40 respondents). Having says that, five out of six questions listed in this part have obtained higher voting of excellent feedback from the respondents, except question no. 4. The "Good" category is in the second ranking with the amount of 111 (46.25%) feedback received from the respondents, while the "Satisfactory" category is received the amount of 15 (6.25%) feedbacks. However, there is no respondent votes for "Poor" category. Also, it seems 28 respondents (70%) out of 40 respondents have described some improvements need to be done by the service provider for question no.4 concerning the time matter.

Table 2. Feedback for Customer Service & Commercial (CSC)

	Q1: Crew and staffs were cautious and helpful on dealing with chartering	Q2: Staffs provided complete and accurate information to you	Q3: The terms and conditions of the services provided were well explained and understandable	Q4: A timely response was provided	Q5: The price and quality of the product are reasonable	Q6: Staffs offered relevant advice and efficient treatment of your claims
Excellent	22	23	23	7	20	19
Good	17	17	15	28	18	16
Satisfactory	1	0	2	5	2	5
Poor	0	0	0	0	0	0
Total	40	40	40	40	40	40

ii) Technical Assistance (TA)

There are four questions have been asked to the respondents in order to obtaining their feedback concerning the level of customer satisfaction in Technical Assistance (TA) part. Table 3 shows the assessment of the customer satisfaction analysis on the second independent variable "Technical Assistance (TA)". It obviously described that the "TA" of the marine salvage and towage services in the Southern area of Peninsular Malaysia is categorised as "Good" (53.75%) with a total of 86 feedback (Q1:16 + Q2:18 + Q3:23 + Q4:29) out of 160 feedback (4 questions × 40 respondents). Having says that, half of the questions listed in this part have obtained higher voting of good feedback from the respondents which are questions no. 3 and 4. The "Excellent" category is in the second ranking with the amount of 64 (40.00%) feedback received from the respondents, while the "Satisfactory" category is received the amount of 10 (6.25%) feedbacks. However, there is no respondent votes for "Poor" category. Also, it seems that 23 and 29 respondents (57.50% and 72.50%) out of 40 respondents feel no very happy with the two questions concerning technology or product standard and technical solution matters which have described in questions no. 3 and 4. In this case, service providers have to response an immediate action in order to improve their overall service performance.

Table 3. Feedbacks for Technical Assistance (TA)

	Q1: Staffs showed knowledge of the product and service produced by the company	Q2: The technical information provided was understandable	Q3: The technology and products meet the requirement standard	Q4: The staffs provided technical solutions that worked.
Excellent	22	19	16	7
Good	16	18	23	29
Satisfactory	2	3	1	4
Poor	0	0	0	0
Total	40	40	40	40

iii) Safety, Performance & Maintenance of the Equipments (SPME)

There are four questions have been asked to the respondents in order to obtaining their feedback concerning the level of customer satisfaction in Safety, Performance & Maintenance of the Equipments (SPME) part. Table 4 shows the assessment of the customer satisfaction analysis on the first independent variable "SPME". It obviously described that the variable "SPME" of the marine salvage and towage services in the Southern area of Peninsular Malaysia is categorised as "Good" (50.00%) which is similar as the variable "TA". The total feedback of such a category is 80 feedback (Q1:20 + Q2:18 + Q3:20 + Q4:22) out of 160 feedback (4 questions × 40 respondents). Having says that, three out of four questions listed in this part have obtained higher voting of excellent feedback from the respondents, except question no. 2. The "Excellent" category is in the second rank with the amount of 65 (40.63%) feedback received from the respondents, while the "Satisfactory" category is received the amount of 15 (9.37%) feedbacks from the respondents. Again, there is no respondent votes for "Poor" category. Also, it seems that 20, 20 and 22 respondents (50.00%, 50.00% and 55.00%) out of 40 respondents feel no very happy with the three questions concerning equipment standard and maintenance as well as service time matters which have described in questions numbers 1, 3 and 4. Service providers have to give serious attention to this part in order to increase the customer satisfaction and loyalty. The similar further action should be taken to the variable "TA".

Table 4. Feedback for Safety, Performance & Maintenance of the Equipments (SPME)

	Q1: Equipment's safety, standard and quality are highly certified and updated	Q2: Operational crews are experienced, courteous, well-trained and highly competent to perform the job	Q3: Equipments are well maintained and operating well	Q4: Company provided on time services and effective solutions
Excellent	18	21	12	14
Good	20	18	20	22
Satisfactory	2	1	8	4
Poor	0	0	0	0
Total	40	40	40	40

Referring to the feedback in Tables 2, 3 and 4, the overall average of each section is calculated. The overall average or mean score for the variable "CSC" is 1.588, followed by the variables "TA" (1.660) and "SPME" (1.688) consecutively. In relative, these values show high tendency to be near the value of 2, which implies, on average, the overall service performance of the company in terms of its Customer Service & Commercial (CSC), Technical Assistance (TA) and Safety, Performance & Maintenance of the Equipments (SPME) is just "Good". This index provides an indication that the company should make further improvement to upgrade their service performance to the level "Excellent".

Furthermore, three general questions have been asked to the respondents regarding the marine salvage and towage services provided by the marine companies in Southern of peninsular Malaysia. Basically, these three questions intend to measure the overall customers' feedback concerning their level of satisfaction.

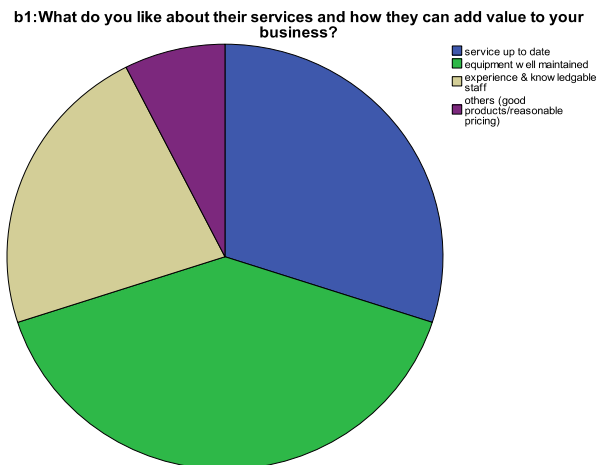


Figure 2. Services liked by the customer

Figure 2 shows the Pie Chart of services liked by the customer. The service most likely obtaining the highest vote from the respondents is good the service "equipment maintenance" (40.00%). It is followed closely by the service "up to date" information and equipment (30.00%), "experience and knowledgeable staff" (22.50%) and finally, only 7.50% vote for the service "products/reasonable pricing". It seems that most customers happy with both services "equipment maintenance" and "knowledgeable staff". These two elements assist the company to maintain their customers' loyalty in future. However, the element of "products/reasonable pricing" seems does not obtaining much votes from the respondents and ranked at the bottom level. The marine service company must seriously look at this issue as the products and prices of particular products are the main element in this marine salvage and towage service. If the standard service price is too high, then customers have a right to find out another alternative company that provides more reliable marine services with reasonable price.

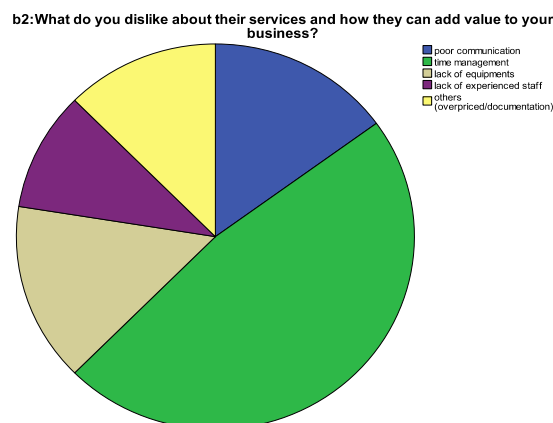


Figure 3. Services disliked by the customer

Figure 3 shows the Pie Chart of services disliked by the customer. The service most dislike obtaining almost half of pie chart vote from the respondents is the service "time management" (47.50%). Meanwhile, there is an equal distribution between both services "poor communication" and "lack of equipment" with 15.00% each. It is followed by the service "others" such as overpriced or documentation (12.50%), and finally, only 10.00% vote for the service "lack of experience staff" which the customers consider as insufficient and should be in abundant supply. It seems that most customers no very happy with the element "time management" provided by the marine services company. This is considered as serious issue that has to overcoming by the company. As a normal practice, every second is involving millions of money to the business person. Thus, as past as the job can be done, the business enables to save the operating and waiting time costs. Indeed, the service efficiency of marine company is measuring using the operating time management. Again, if the standard operating time management of this company is too high, then customers have a right to find out another alternative company that provides more reliable marine services with fast operating time.

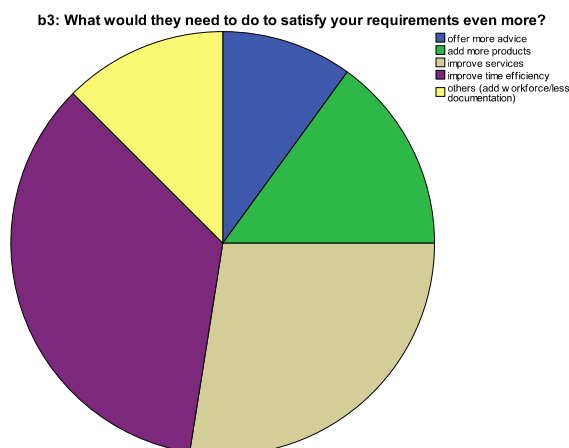


Figure 4. Customer Satisfaction Requirement

Referring to Figures 2 and 3, Figure 4 shows the Pie Chart of services requirement by the customer. Most customers agreed that the element "time efficiency/management" (35.00%) has to be improved to the real business standard. Otherwise, the company will lose the customer loyalty in future. There are a number of strategies suggested by customers concerning the time efficiency, such as 1) the salvage and towage tug boats must be in excellent condition in order to avoid any breakdown during the service, 2) replace the old tug boats with the new one to increase the operating time management and 3) plan the service slot properly for avoiding any congestion during operation. The second largest element of service requirement is "improve services" (27.50%). The customers requires for better service should be provided by the marine company as it has strong relations/links to the element "time efficiency/management". By increasing these two elements, it would guarantee the loyalty of customer in future. Otherwise, they will look at to another marine salvage and towage company that can fulfil their requirements. The third largest element of service requirement is "add more products and equipments" (15.00%) to the services, followed by the element "others" (12.50%) such as less documentation required because online documentation is more preferable and adding workforce will satisfy them even more. Finally, another 10.00% vote goes to the element "offer more advice" as the customers need more advice regarding the services offered by the service provider.

Service performance of the marine salvage and towage plays an important role in influencing the level of customer satisfaction. It is an essential ingredient that needed in every service-oriented company in order to achieve profitability in gaining customer satisfaction. Also, from the overall assessment in this section, it concludes that the relationship between the service performance provided by the marine salvage and towage company at Southern of peninsular Malaysia that have measured through customer satisfaction analysis and the customer demand is still positive as more than 2/3 of customers feel "Good" when using the marine salvage and towage service. However, less than 1/3 of customers feel "Satisfactory" when using this particular service. Therefore, this situation leads to the customer loyalty issue which how many customers willing to use the marine salvage and towage service again in future?

In this case, the marine service providers should able to deal with some issues mentioned in Figures 3 and 4, for instance 1) lack of time management, 2) lack of equipments, 3) having poor communication during the process, 4) thinking the service or equipments might be overpriced and 5) dealing with inexperienced staff. Therefore, further improvement on the marine service performance of the company should be immediately taken in order to increase the customers' satisfaction and loyalty as they will determine the company's profitability. For instance, the company may consider of improving time efficiency, services, and adding more products to make it more variety as well as updating the product information every time. Also, the company needs to consider of hiring more knowledgeable and experiences staffs as well as providing them with sufficient trainings and thinking of price reduction if possible. If immediate action is not be taken accordingly, the outcome of the problem will eventually leads to low quality of services, thus it is affecting the customer satisfaction level in future.

5. DISCUSSION

Forty questionnaires are completed by the respondents from both companies which are Malacca Port and Malaysian Marine Heavy Engineering (MMHE), Johor. Again, the purposes of this study are to measure customer's satisfaction on service provided by the Malaysian towage and salvage companies in Southern region of Peninsular Malaysia and identify the customer requirements that enable to boost their satisfaction. As described previously in Section 3, the study is carried out using a qualitative method by collecting primary data from respondents' incorporation with personal interview session. The respondents feedback are analysed as described in Section 4.

As a conclusion, it is clear that the customers in Southern region of Peninsular Malaysia are satisfied with the service provided by the Malaysian towage and salvage companies. The service provider also has met the customer requirement by the quality of the services given. Malaysian towage and salvage companies can benefit from the fact of knowing how customers distinguish the service quality and knowing the way of how to measure service quality. Therefore, the management can use the specific data obtained from the measurement of service quality in their strategies and plans for future references. This will eventually help the companies to have a better understanding of various service quality dimensions that affects overall service customer satisfaction. In addition, any areas that receive negative feedback can be improved as any enhancement in service quality will lead to happy customers hence creating a long term relationship between the service provider and the customer itself. For this reason, understanding customer satisfaction with service quality is very important and challenging.

However, there are several factors that contributes to the affecting customer's satisfaction that fall under the quality of services such as knowledgeable staff regarding on the product and services, the requirements and standard of the technology and products, certified and updated equipment's safety as well as whether the equipments are well maintained and operating or not. As far as concerns, salvage and towage services provided by domestic companies have been made available for many decades to assist ships and other vessels in Malaysian waters. Since the need of these type of services is crucial in navigating and rescuing ship, the call for a survey on customer's satisfaction that has used these services is highly important and to determine whether our local companies really set a high benchmark in their customers' expectations. Therefore, a data on customer's satisfaction is important in salvage and towage industry.

Nowadays, the service standards are increasing. Customers are difficult to satisfy than before. Even though there is not too many towage and salvage company in the region, customers expect a higher standard of service quality. If the delay of time response was minimal, customers expect a much shorter delay next time. Having a much more experienced staff will ensure that there will be no problem on two way communication between the customer and the service provider. However, the increasing experience in customer in the region, the expectation of this group may increase. After a few years, customers in the Southern region of Peninsular Malaysia may evaluate a towage and salvage company with a much higher standard. Therefore, it is recommended for the towage and salvage company to keep improving their service quality in order to minimize the percentage of dissatisfaction among their customers. As service quality is the only way to retain old customers and attract new ones.

6. CONCLUSION

The result of this study is shown that marine salvage and towage service is very important to the maritime industry in Southern Region of Peninsular Malaysia. Although, 1/3 of customers feel "Satisfactory" with the marine service, it does not mean that the marine salvage company will loss the customer in future. Therefore, the management team of marine salvage's company should response to all customers subjective comments and requirements in smart and serious manners together with a set of strategic solution plans that considering short and long terms periods in order to boosting the marine salvage and towage service performance and customer satisfaction. This is important in ensuring the sustainability of the marine salvage and towage industry smoothly operated in Southern region of peninsular Malaysia in future. By providing the best and professional marine salvage and towage services, it leads to increasing the number of "Excellent" vote by customers as well as customer loyalty to the service in future.

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REFERENCES

- Agoha, W.U. 2008. "The Impact Of The Cabotage Act On Local Capacity Development: A Study Of Selected Indigenous Shipping Companies." Master Thesis, School Federal University Of Technology, Owerri.
- Anderson, E.W., and Vikas, M. 2000. "Strengthening the Satisfaction-Profit Chain." *Journal of Service Research* 3 (2):107-120.
- Anderson, E.W., and Mary, W.S. 1993. "The Antecedents and Consequences of Customer Satisfaction for Firms." *Marketing Science* 12 (2):125-143.
- Anderson, E.W., Fornell, C., and Rust, R.T. 1997. "Customer Satisfaction, Productivity, and Profitability: Differences Between Goods and Services." *Marketing Science* 16 (2):129-145.
- Anderson, E.W., Fornell, C., and Lehmann, D.R. 1994. "Customer Satisfaction, Market Share, and Profitability: Findings from Sweden." *Journal of Marketing* 58 (3):53-66.
- Bolton, R.N. 1998. "A Dynamic Model Of The Duration Of Customer's Relationship With A Continuous Service Provider: The Role Of Satisfaction." *Marketing Science* 17 (1):45-65.
- Cronin, J.J.Jr., and Taylor, S.A. 1992. "Measuring Service Quality: a Reexamination and Extension." *Journal of Marketing* 56 (3):55-69.
- De Wulf, K., Gaby, O.-S., and Iacobucci, D. 2001. "Investments in Consumer Relationships: A Cross-Country and Cross-Industry Exploration." *Journal of Marketing* 65 (4):33-50.
- Drucker, P.F. 1954. "The Practice of Management." New York: Harper & Row.
- Fornell, C. 1992. "A National Customer Satisfaction Barometer: The Swedish Experience." *Journal of Marketing* 56:6-21.
- Fornell, C., Johnson, M.D., Anderson, E.W., Cha, J., and Bryant, B.E. 1996. "The American Customer Satisfaction Index: Nature, Purpose, and Findings." *Journal of Marketing* 60:7-18.
- Fournier, S., and Mick, D.G. 1999. "Rediscovering Satisfaction." *Journal of Marketing*, 63:5-23.
- Franceschini, F., and Rossetto, S. 1999. "Service Qualimetrics: The Qualitometro li Method." *Quality Engineering* 12 (1):13-20.
- Hallowell, R. 1996. "The Relationships of Customer Satisfaction, Customer Loyalty, and Profitability: An Empirical Study." *International Journal of Service Industry Management* 7 (4):27-42.
- Igbokwe, M.I. 2006. "Nigerian Maritime Cabotage Policy and Law: The Case and Advocacy. Published by One United Thursday Company Limited, Lagos.
- International Convention on Salvage 1989. "Admiralty and Maritime Law Guide." International Convention, Chapter 1, Article 1, 28 April, London.
- Loveman, G.W. 1998. "Employee Satisfaction, Customer Loyalty, And Financial Performance: An Empirical Examination Of The Service Profit Chain In Retail Banking." *Journal of Service Research* 1:18-31.
- Milwee, W.I. 1996. "Modern Marine Salvage." Cornell Maritime Press, the University of Virginia.
- Mittal, V., and Kamakura, W. 2001. "Satisfaction, Repurchase Intent, and Repurchase Behavior: Investigating the Moderating Effect of Customer Characteristics." *Journal of Marketing Research* 38 (1):131-142.
- Oliver, R.L., and Swan, J.E. 1989. "Consumer Perceptions of Interpersonal Equity and Satisfaction in Transactions: A Field Survey Approach." *Journal of Marketing* 53:21-35.
- Oliver R.L. 1993. "A Conceptual Model of Service Quality and Service Satisfaction: Compatible Goals, Different Concepts." *Adv Service Marketing Management* 2:65-85.
- Oxford 2011. "Oxford English Dictionary." Oxford University Press. London.
- Parasuraman, A., Berry, L.L., and Zeithaml, V.A. 1988. "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality." *Journal of Retailing* 64:12-40.
- Reichheld, F.F. 1996. "The Loyalty Effect: The Hidden Force Behind Growth, Profits, and Lasting Value." Harvard Business Review Press; 1st edition.
- Schlesinger, L.A., and Heskett, J.L. 1991. "Breaking the Cycle of Failure in Services." *Sloan Management Review* 32:17-28.