

Evaluation of Service Quality in Pakistanian Maritime Training Institutions

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ABSTRACT

This study was performed to Measure and Priorities of Service Quality of Pakistanian Maritime Training Institutes (case study Karachi Institute) by using SERVQUAL and Analytical Hierarchy Process (AHP) models. In this applied descriptive-survey study, 200 Trainees of Maritime Training Institutions in Pakistan were selected by stratified random sampling method in 2012. The main research tool was The Standard Questionnaire of SERVQUAL Model which had already been assessed regarding its validity and reliability. Results reveal that there is a gap between the perceived and desired service level; furthermore we witnessed no adequate quality service in all Dimensions; what's more, t-test also indicated that there is a significant difference between the desired and the perceived quality service level. The highest average of quality gap was observed in the reliability (-1/20) and then in responsiveness (-1/16), tangibles (-1/02), and assurance (-0/91), respectively. The lowest average belonged to empathy (-0/87). Finally this research introduces practical suggestions to promote the service quality of Maritime Training Institutions.

KEYWORDS: Quality, service, Maritime Training, Trainees, Analytical Hierarchy Process, SERVQUAL.

1. INTRODUCTION

Attending the quality of goods and services plus providing more favorable services are vital matters which are specially prioritized by the global society, nowadays Low quality goods and services (less than customer's expectation) cause reduction of reputation, market share and profit of their producers [1, 2]. These days, quality is defined by customers' desires therefore their expectations and perceptions are respected as the main factors to specify quality [3, 4]. In fact, customers define the quality of goods and services rather than producers. For this reason, quality must be seen from the eyes of customers and their ideas on quality must be investigated. Compared to goods, quality of services is more sensitive and important because goods are produced in one place and used in another one so their quality can be checked later; but services are produced and used in the same time and place therefore their quality is checked in the same time of production and usage simultaneously [5]. Due to this importance and sensitivity, service providing companies must continuously concern the daily improvement of the quality of their services [6, 7]. To reach to this, their current situation should be evaluated, their customers' satisfaction should be understood, their strength and weakness points should be recognized then necessary steps have to be taken to improve the situation. To improve the quality of the services, customers' points of view should be incorporated in programs [8, 9]. Maritime training Institutions as the service providing organizations which have the important task of education and promotion of scientific level of seafarers can't be excluded from this matter.

The shipping industry today is the result of a steady evolutionary process over the years and it remains vital to the world's trade. The success of this ever-changing industry rests on two essential factors: technology and the human element. But even the best designed and equipped ship is sub-standard if her crew is under trained, poorly accommodated and overworked. The future of shipping is ultimately dependent not on state-of-art technology, but rather on the quality and expertise of the person handling that technology. Moreover, in compliance with the content of STCW¹ convention, such Institutions have to take necessary steps to promote the quality level of their services. The main objective of this research is evaluation of quality of services in Karachi maritime training Institute by use of SERVQUAL and Analytical Hierarchy Process (AHP) models. This tool has been applied to reach to the mentioned objective.

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LITERATURE REVIEW

The safety and security of life at sea, protection of the marine environment and over 90% of the world's trade depends on the professionalism and competence of seafarers. There can be no doubt that shipping plays a pivotal role in underpinning international trade. It has always provided the only really cost-effective way to transport large quantities of raw materials, components, finished goods, fuel and foodstuffs over any great distance. Ships and the seafarers that man them therefore fulfil a vital role in today's global economy. A well-trained seafarer is the most valuable asset an owner has on board. Companies must meet the requirements for which they are directly responsible. Having well-trained seafarers is essential to any maritime company who wishes to demonstrate that responsibility, while at the same time be seen by the community as having quality and competitive operation. Maritime Training Institutes provides a wide range of maritime training course such as Marine Engineering at Management , Ship Maneuvering Simulator Course, Engine Room Simulator Course for Marine Engineering at Operational Level simulator, Tanker Familiarization- Oil, Automatic Radar Plotting Aids, Elementary First Aid, Advanced Ship Board Management , Medical First Aid , Medical Care, Personal Safety and Social Responsibilities, Personal Survival Technique , Pre Sea Training for Deck Cadet, Radar Observer Simulator Course, Radar and Navigation Simulator Courses.

Based on our knowledge, no research has been conducted to evaluate the quality of services provided by maritime training Institutions via SURVQUAL model so far. Thus this is the first application of this model to assess the quality of services offered by the mentioned Institutions. However, some studies have been already conducted on quality of education in universities and high education Institutions which have been referred to in the followings.

Hamidi and Jabbari [8] studied quality gaps of educational services in industrial management field. Finally, five gaps of SURVQUAL model were reviewed. It was ascertained that quality problems could be reduced if standardization process be considered based on the expectations of customers. Bagherzade Khaje and Bagherzade [9] studied the quality of services of high education Institutions of Tabriz by use of SURVQUAL model and ranked them via Analytical Hierarchy Process. They led to the result that Tabriz high education Institutions couldn't have met the expectations of their students. The least amount of gap belonged to the dimension of assurance and the most extent belonged to the dimension of sympathy. According to the students' opinions, the dimension of sympathy and responsiveness possessed the most importance. Toufiqi and Sadeghi [10] studied the quality of educational services of Medical Sciences University from the eyes of the students. The results showed that their expectations were beyond their perceptions of the current circumstances of university and none dimension of services had complied with their expectations.

SERVQUAL

SERVQUAL is one the famous methods for measuring the quality of services, emerged in 1985 by Parasurman, Berry and Zeithmal. They commenced in 1983 when the project of Service Quality Measurement supervised by America Marketing Sciences Institute got approved. Till the date (1985) they could have tested their findings in service industries such as banking, insurance, credit cards, telecommunications, repair and maintenance and road transportation companies. Such a wide range of service industries shows the depth of their works and specifies the validity of the offered results [11]. To fulfill such a wide range of researches, they formed numerous interview panels with customers, staffs, managers and line personnel of the mentioned industries. This matter caused their studies to be quite practical and the obtained results to be rather applicable now. SURVQUAL should be considered as a reference in measuring the quality of services since it is one of the initial methods in this field. This method firstly identified 10 dimensions for services. It was later purified to 5 dimensions. 10 dimensions were classified in 5 with a specific refinement. Their method was based on measuring the gap between customers' wants and the services they really perceived. Three conditions emerge while studying this gap [12]:

- Customer's perceptions are more than his expectations. In this case quality is excellent.
- Customer's perceptions are equal to his expectations. In this quality is good.
- Customer's perceptions are less than his expectations meaning that his expectations are not met. In this case quality is weak.

The tool for gathering data in this method is a questionnaire which includes two questionnaires of expectations and perceptions each of which consist of 5 dimensions and 22 factors which will be mentioned in the followings. It should be noticed that the factors of SURVQUAL have been designed in a standard form and are generally used in service providing units [13]. Taking into consideration the environmental situations, these items should be firstly studied, localized and then be applied.

Dimensions and Factors of SURVQUAL

- 1) Physical dimensions: including existence of job related facilities and equipment plus communicative devices. All of these dimensions create the image which customer considers for quality evaluation [12].

- 2) Reliability: it means to be capable for fulfillment of services in an assured and reliable form as the expectations of the customer become met. In other words, service providing organization has to comply with the commitments on services time, style and cost if already agreed on [14]
- 3) Responsiveness: it means tendency to help and cooperate with customer. This dimension of services quality emphasizes on showing sensitivity and vigilance towards customer's demands, questions and complaints [12].
- 4) Assurance and Assurance: assurance and assurance express capability and competence of staffs to inspire in customer a sense of reliability and assuredness toward the organization. This dimension is especially important in services with higher risk [12].
- 5) Sympathy: it means facing people in a specific way based on their own morale as they become convinced that the organization has appreciated them and they are important for the organization [15].

Research Objectives

Considering what mentioned in above, the objectives of the present research are as follows:

- 1) Evaluation of quality of services of maritime training Institutions of PAKISTAN KARACHI city and determination of the services gap by use of SURVQUAL
- 2) Determination of importance and priority of quintuple dimensions of quality training service According to the trainees' opinions, by using AHP model.

To achieve the mentioned objectives, the following hypotheses have been supposed:

Main Hypothesis

- 1) There is a difference between the extent of trainees' expectations from the services of maritime training Institutions and the extent of their perceptions of the received services.
- 2) According to the trainees' opinions, the importance and priority of quintuple dimensions of quality is different.

Secondary Hypotheses

- 1- Trainees' expectations of physical factors dimension of services provided by maritime training Institutions is different from their perceptions.
- 2- Trainees' expectations of reliability dimension of services provided by maritime training Institutions is different from their perceptions.
- 3- Trainees' expectations of responsiveness dimension of services provided by maritime training Institutions is different from their perceptions.
- 4- Trainees' expectations of assurance dimension of services provided by maritime training Institutions is different from their perceptions.
- 5- Trainees' expectations of sympathy dimension of services provided by maritime training Institutions is different from their perceptions.

Analytical Hierarchy Process (AHP).

Analytical Hierarchy Process (AHP) is one of the most famous techniques in Multiple Criteria Decision Making (MCDM) invented by Thomas L. Saaty in the 1970's. The technique is useful when decision making faced with multiple criteria and decision making index. Indicators can be quantitative or qualitative [16]. In AHP, a series of paired comparisons are made between the indicators and highlights the weight of each indicator compared to competing alternatives. The logic of AHP combines matrices of paired comparisons together as the optimal decision forms and ultimately the rate of decision adaption is measured; then the good, the bad, accepted or rejected, will be judged. In this method, multiple quantitative and qualitative criteria are considered and various options to be involved in decision making.

RESEARCH METHODOLOGY

With a view to the objective, the present study is an applied research as its results can be useful for quality improvement of services of Pakistanian maritime training Institutions [16, 17]. Taking into consideration the type and nature of the problem, objectives and questions, this research is descriptive and for gathering the required data field study technique is applied. In this research, SURVQUAL standard questionnaire - which is including two 22-question parts for evaluation of customers' expectations and perceptions - has been reviewed by consideration of maritime training industry in Pakistan and the opinions of several relevant experts. Finally, the questionnaire consists of two parts; in part one, responders are requested to rank the importance of each one of quintuple dimensions of quality of services (Physical, reliability, responsiveness, assurance and sympathy) from 1 to 5. Part two consists of 22 questions for evaluation of trainees' expectations and 22 questions for evaluation of their

perceptions of services of maritime training centers at which they study. Likert 5 degree scale is applied for answering the questions; the choices are from completely disagree = 1 to completely agree = 5.

AHP Questionnaire

At the end, 22 parameters of SERVQUAL was designed in AHP Questionnaire and distributed among experts. The pair comparison rate schedule presented in Table 1 has been used in this Questionnaire in order to compare SERVQUAL factors and their priorities in two. The results of these questionnaires were analyzed using expert choice 11 and prioritization of SERVQUAL dimensions items for each dimension are achieved. From these results it is concluded that from the view point of trainees in maritime educational institutes, which one of the factors and indicators of each dimension is more important for the improvement of future programs.

Table 1. Valuation in hierarchy analysis

PREFERENCE LEVEL	NUMERICAL VALUE
Equally preferred	1
Equally to moderately preferred	2
Moderately preferred	3
Moderately to strongly preferred	4
Strongly preferred	5
Strongly to very strongly preferred	6
Very strongly preferred	7
Very strongly to extremely preferred	8
Extremely preferred	9

Validity and Reliability of Questionnaire

Validity of SURVQUAL questionnaire was confirmed based on the opinions of several experts. Cronbach's alpha test was applied for checking the reliability. The figures obtained by use of SPSS Ver. 19 and presented in table 2. And also Inconsistency Ratio (I.R) was applied for checking the reliability of AHP questionnaires and the results presented in table 2.

Table 2. Results of Cronbach's Alpha Test and inconsistency rate of AHP questionnaire

Questionnaire	Inconsistency	SURVQUAL Dimension	Cranach's alpha	
			Expectations	Perceptions
Dimension Comparison	0/00			
Comparison of the physical dimension	0/02	physical dimension	0/79	0/88
Comparison of Reliability Dimension	0/03	Reliability Dimension	0/88	0/76
Comparison of Responsiveness Dimension	0/01	Responsiveness Dimension	0/94	0/79
Comparison of Assurance Dimension	0/01	Assurance and Guaranty Dimension	0/97	0/87
Comparison of Empathy Dimension	0/02	Empathy Dimension	0/89	0/79

Population and Sample

Statistical population of this research consists of all available trainees of Karachi maritime training Institute who attend the following courses: second officer and master of Ships less than 500-tons traditional and metallic vessels as well as below 150-ton metallic vessels, trainees of operator of marine engines less than 750 kilowatt, comparative course of third engineer less than 3000 kilowatt, third engineer less than 3000 kilowatt, second engineer less than 3000 kilowatt in the year 2011.

In this research, to determine the sample size, a preliminary study with distribution of 30 questionnaires among the trainees was carried out. Via estimation of variance of primary sample in confidence level of 95%, the sample size was determined as 200 persons. The method of sampling is Simple random. The results are mentioned in table 2.

The section also used opinions of experts, university professors and experts in this field to localize SERVQUAL model. Of course questionnaires (SERVQUAL questionnaire) have been completed only by 200 trainees as sample. AHP questionnaire have been completed by 10 of the trainees and 5 managers of educational navigation institutions, whom are familiar with Analytical Hierarchy Process Model and their comments is consensus using the geometric mean.

Data Analysis

Data Analysis is performed in several steps. For measuring service quality, the data for SERVQUAL questionnaire will be studied. For this purpose, the gap between perceptions and expectations will be measured once on dimensions and once in each of the factors and quality of services. Data for AHP questionnaire will be studied in the second stage and the 5th dimensions of SERVQUAL and factors of each Dimension are prioritized using their results.

Normality of data distribution was tested by use of SPSS Kolmogorov – Smirnov test. The results ($p > 0.05$) confirmed the normality of data distribution. Parametric paired sample test got applied for testing the hypotheses of research and Friedman test was employed for rating and prioritization of quintuple dimensions of quality of services based on the trainees’ views. Excel 2010 and SPSS Ver. 19 were used to analyze the collected data. Expert choice11 is used for calculation of Analytical Hierarchy Process

RESULTS AND FINDINGS OF RESEARCH

The data obtained by SURVQUAL questionnaire from the Institutions showed that there was a remarkable gap between what the trainees expect from the quality of services and what they perceive indeed.

Determining the gap of quintuple dimensions of services quality

The mean of expectations, perceptions and the gaps pertinent to each dimension have been mentioned in table 3, And also Table 4 indicates expectation, perceptions and the gap for each of the 5th dimensions of service quality.

Table 3 – The mean of expectations, perceptions and quality gap for each dimension of services quality

Dimensions	Elements	Mean of Expectations	Mean of Perceptions	Mean of Gaps
Physical Dimension	1- There exist modern and proper educational and aid educational equipment (PC, simulator and other educational equipment required by STCW).	4/36	3/01	-1/35
	2- Decoration and facilities of center’s classrooms and workshop are appropriate.	4/22	3/2	-1/02
	3- The appearance of training instructors and lecturers while attending the classrooms is in accordance with conditions of training environment.	3/91	3/23	-0/68
	4- The access to the center in city is appropriate.	4/26	3/2	-1/06
Reliability Dimension	5- Questions discussed in classes are answered correctly.	4/56	3/36	-1/2
	6- Related, proper and updated information (maritime industry and maritime safety) according to educational courses is given to the learners.	4/68	3/39	-1/29
	7- Training courses are held in due time.	4/47	3/28	-1/19
	8- Experts and lecturers show interest to update their educational material (in accordance with STCW and standards).	4/64	3/5	-1/14
Responsiveness Dimension	9- Staffs are honest and trustee to assist the learners, information transfer and solving their problems.	4/46	3/3	-1/16
	10- New and updated information is given to the learners.	4/32	3/1	-1/22
	11- Proper answers are given to the learners of the training center in the least possible time.	4/27	3/4	-0/87
	12- Lecturers are always eager to assist the learners.	4/5	3/16	-1/34
	13- Education Department is responsible for taking feedback from learners and instructors in view point of training quality.	4/46	3/23	-1/23
Assurance Dimension	14- Staffs of Education Department are properly familiar with application of new educational equipment and technology.	4/48	3/6	-0/88
	15- Staffs and lecturers have sufficient knowledge to reply learners’ questions.	4/45	3/18	-1/27
	16- Learners trust on education experts and lecturers for receiving the respected services.	4/2	3/39	-0/81
	17- Learners feel relax and convenience while interacting with Education Department.	4/16	3/48	-0/68
Sympathy Dimension	18- Staffs’ behavior gradually creates confidence in learners.	3/9	3/34	-0/56
	19- Training center appreciates specific needs as well as ideas and criticisms of the learners.	4/37	3/32	-1/05
	20- Working time of training center is appropriate for learners.	4/52	3/26	-1/26
	21- All people visiting the center are given equal amount of importance.	4/15	3/27	-0/88
	22- Staffs pay personal attention to the learners.	4/05	3/41	-0/64

Table 4 . Mean of Expectations and Mean of Perceptions and Mean of Gaps

Dimensions	Mean of Expectations	Mean of Perceptions	Mean of Gaps
Physical Dimension	4/18	3/16	-1/02
Reliability Dimension	4/58	3/38	-1/20
Responsiveness Dimension	4/40	3/23	-1/16
Assurance Dimension	4/32	3/41	-0/91
Sympathy Dimension	4/19	3/32	-0/87

Hypothesis Testing

First Main Hypothesis Testing

With regard to the results of paired t test in Table 5 and the amount of significance level in confidence level of 95%, H_1 hypothesis is confirmed; meaning that there exists a significant difference between the extent of trainees’ expectations of services of maritime training Institutions and the extent of their perceptions of the received services.

Table 5 – Results of Paired T Test – Testing the first main hypothesis

Mean	Paired Difference				t	d.f	Sig. (2-tailed)	Hypothesis	Test Results
	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference						
			upper	lower					
1.05800	0.15752	0.07052	1.26421	0.86164	14.860	198	0.000	First Main Hypothesis	H ₁ Confirmed

The Results of Secondary Hypotheses

Considering the results of paired t test (table 6) for all secondary hypotheses, it can be resulted that in confidence level of 95% and considering the amount of significance level, H₁ hypothesis is confirmed meaning that in all element of service quality, there is a significant difference between the trainees’ levels of expectations and perceptions.

Table 6 – The Results of Paired t Test – Secondary Hypotheses Test

Mean	Paired Difference				t	d.f	Sig. (2-tailed)	Hypothesis	Test Results
	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference						
			lower	upper					
1.06500	0.28657	0.14337	0.60339	1.52648	7.379	3	0.004	Physical dimension	H ₁ confirmed
1.21000	0.06964	0.03587	1.08888	1.30122	34.423	3	0.000	Reliability dimension	H ₁ confirmed
1.24000	0.17803	0.07517	1.04313	1.45812	16.613	4	0.001	responsiveness dimension	H ₁ confirmed
0.85750	0.26122	0.13059	0.47167	1.30233	6.789	3	0.006	Assurance dimension	H ₁ confirmed
0.91500	0.29710	0.13411	0.54650	1.28950	6.761	4	0.002	Sympathy dimension	H ₁ confirmed

Result of the second Stage

At this stage, the size and dimensions of the SERVQUAL have been prioritized from the viewpoint of trainees of Maritime Training Institutes using Analytical Hierarchy Process Model and their importance in quality of services. The results presented in Table 7.

Table 7. Priority of dimensions and Elements

Dimensions	Elements	P. dimensions	P. Elements
Physical Dimension	1- There exist modern and proper educational and aid educational equipment (PC, simulator and other educational equipment required by STCW).	0/211	0/250
	2- Decoration and facilities of center’s classrooms and workshop are appropriate.		0/174
	3- The appearance of training instructors and lecturers while attending the classrooms is in accordance with conditions of training environment.		0/176
	4- The access to the center in city is appropriate.		0/210
Reliability Dimension	5- Questions discussed in classes are answered correctly.	0/260	0/170
	6- Related, proper and updated information (maritime industry and maritime safety) according to educational courses is given to the learners.		0/200
	7- Training courses are held in due time.		0/180
	8- Experts and lecturers show interest to update their educational material (in accordance with STCW).		0/260
Responsiveness Dimension	9- Staffs are honest and trustee to assist the learners, information transfer and solving their problems.	0/220	0/205
	10- New and updated information is given to the learners.		0/175
	11- Proper answers are given to the learners of the training center in the least possible time.		0/180
	12- Lecturers are always eager to assist the learners.		0/190
	13- Education Department is responsible for taking feedback from learners and instructors in view point of training quality.		0/250
Assurance Dimension	14- Staffs of Education Department are properly familiar with application of new educational equipment and technology.	0/170	0/250
	15- Staffs and lecturers have sufficient knowledge to reply learners’ questions.		0/300
	16- Learners trust on education experts and lecturers for receiving the respected services.		0/260
	17- Learners feel relax and convenience while interacting with Education Department.		0/190
Sympathy Dimension	18- Staffs’ behavior gradually creates confidence in learners.	0/138	0/202
	19- Training center appreciates specific needs as well as ideas and criticisms of the learners.		0/228
	20- Working time of training center is appropriate for learners.		0/238
	21- All people visiting the center are given equal amount of importance.		0/175
	22- Staffs pay personal attention to the learners.		0/157

Conclusion

Generally, it can be said that there exist gaps in all dimensions in the Institutions meaning that they couldn't have meet the expectations of the trainees who are the very main customers of these Institutions. Results show that the reliability dimension possesses the most gap (-1.20) while the Sympathy dimension show the least gap. According to the trainees' opinions, by using AHP model the quintuple dimensions of quality of services are prioritized from the most to the least as reliability, responsiveness, physical, assurance, sympathy.

- From among factors of Physical Dimension (instructors and educational teachers attend their classes with an appearance consistent with educational circumstances) has the least gap -0/68 and (there are educational equipment, modern and appropriate teaching aid such as computer, simulator and other necessary educational equipment comply with STCW standards), has the maximum gap (-1/35).
- From among factors of reliability, the factor (experts and masters are interested to update their content consistent with STCW educational standards in the teaching field) has lowest gap (-1/14) and the factor (relevant, appropriate and update information (maritime industry and safety) are available for students according to training courses) has the highest gap (-1/29).
- From among factors of responsiveness, the factor (appropriate responsiveness to trainees at teaching center in minimum possible time) has the least gap (-0/87) and the factor (faculty of education are always eager to help students.) has the highest gap (-1/34).
- Among factors of assurance dimension, the factor (learners feel comfortable and relaxed in cooperation with the Department of Education) has lowest gap (-0/68) and the factor (staff and faculty have sufficient knowledge to answer students' questions.) has the highest gap (-1/27).
- From among factors of sympathy, the factor (staff behavior creates confidence in learners over time) has lowest gap (-0/56) and the factor (working hours of training center is good for learners) has the highest gap (-1/26).

Each dimensions and factors of SERQULAR dimensions are prioritized from the viewpoint of trainees of Maritime Training Institute using AHP model regarding their importance in service quality. The result indicates that from among five dimension of SERQULAR, reliability dimension has the priority of (0/260) and the physical dimension priorities (0/211) have the lowest priority.

- From among factors of Physical, the factor (there are educational equipment and modern and appropriate teaching aid such as computer, simulator and other necessary educational equipment comply with STCW standards) has the highest priority (0/250) and the factor (facilities and decoration of classes and workshops are appropriate in the center) has the lowest priority (0/174).
- From among factors of reliability dimension, the factor (experts and masters are interested to update their content consistent with STCW educational standards in the teaching field) has the highest priority (0/260) and the factor (correct answer will be given to the questions on training courses) has the lowest priority (0/170).
- Among factors of responsiveness dimension, the factor (Department of Education is responsible to obtain feedback from students and teachers for education quality) has the highest priority (0/250) and the factor (new and updated information is available for students.) has the lowest priority (0/175).
- From among factors of assurance dimension, the factor (employees and teachers have sufficient knowledge to answer student questions) has the highest priority (0/300) and the factor (learners are comfortable and relaxed in their interactions with teaching units) has the lowest priority (0 /190).
- From among factors of empathy dimension, the factor (working hours of training center is good for learners) has the highest priority (0/238) and the factor (staff pay personal attention to students.) has the lowest priority (0/157).

The following suggestions have been offered in order to utilize the results:

As mentioned before, the results obtained from the statistical analysis confirmed all hypotheses, therefore the present research can be deemed reliable to evaluate the quality of services of maritime training Institutions thereupon its findings can be applied for improvement of quality of the services as well as identification of strength and weakness points of maritime training. The results of hypotheses test showed that in all quintuple dimensions of quality of services, there are gaps between the quality expected by the customers and what they really perceive. In other words, services given to the trainees by maritime training Institutions couldn't have meet their expectations in all dimensions. So these Institutions have to try to decrease the gaps.

The prioritization of quintuple dimensions of quality of services in this research can be considered as a basis for determination of primacy and recency of quality promotion programs of maritime training Institutions of Karachi

city. In this way, emphasizing on more prior dimensions, planners of those Institutions can use the resources of their organization more effectively.

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