

**THE IMPACT OF THE INTERNATIONAL ISPS CODE ON TOTAL QUALITY
(TQM) IN SEAPORTS**
A CASE STUDY OF UMM QASR PORT IN BASRAH

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ARTICLE INFO.

Keywords: International Code; Total Quality; Seaports; Umm Qasr Port.

Abstract

The study examines the effects of the International ISPS Code on overall quality in seaports, with a specific focus on the difficulties encountered during its implementation at Umm Qasr Port in Basrah. The text examines the impact of the International Code on port operations, specifically in terms of increasing maritime trade and improving personnel skills. The objective is to assess the influence of the International Code on overall quality management in seaports, employing a descriptive-analytical method and a questionnaire for data gathering. The study discovered substantial correlations between the International Code and crucial metrics of performance in port operations. The study identified the effects of increasing marine trade, comprehending all port activities, ongoing growth of port operations, and investing in personnel skills. The results emphasise the significance of the International ISPS Code in enhancing security, safety, and operational effectiveness in seaports. This research is essential for the management and security of the maritime sector. The International Code's effects on seaport operations are disclosed, providing valuable information for port authorities and regulatory organisations to make informed decisions. Gaining a comprehensive understanding of these consequences can result in the implementation of enhanced security measures, operational procedures, and a stronger competitive position in the global maritime commerce industry. In conclusion, the research enhances the safety, efficiency, and quality of seaport operations, which is advantageous for all parties involved in the marine sector.

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1. Introduction

Following the events that took place on September 11, 2001, members of the International Maritime Organization (IMO) unanimously agreed at its twenty-second session to establish new measures related to the security of ships and port facilities (Arnold, 2008). The Safety Committee held its first special session on November 2, 2001, in order to expedite the development and adoption of appropriate security measures and prepare it for the Diplomatic Conference. The Diplomatic Conference on Maritime Security held in London on December 1, 2002, adopted new provisions in the International Convention for the Safety of Life at Sea (SOLAS 1974), thus adopting the International Code for the

Security of Ships and Port Facility (ISPS CODE) in an effort to enhance maritime security. (Ball, 2008).

The new provisions and code constitute the international framework through which ships and port facilities can cooperate to detect acts that threaten security and how to deter them (Barney, 2010). The Code includes rules and security procedures for ships and port facilities and provisions relating to maritime authorities or departments and local companies. The International Ship and Port Facility Security Code (ISPS) is an initiative aimed at enhancing security and safety in ports and on-board ships. Let me give you an overview of this blog:

Explanation of the International Ship and Port Facility Security Code (ISPS):

The International Ship and Port Facility Security Code (ISPS) represents an international effort to prevent acts of terrorism that threaten the security of passengers, crews, and the safety of ships.

The Code has been issued with amendments in different years and was adopted as part of the SOLAS Convention to enhance maritime security. The Code aims to define the necessary measures and procedures to prevent and combat terrorism on board ships and in port facilities used in international trade. Purpose of the International Ship and Port Facility Security Code: Achieving safety and security in ports and on-board ships and Strengthening cooperation between contracting governments and concerned parties to detect and evaluate security threats. Also Defining the roles and responsibilities of concerned parties at the national and international levels.

The main requirements of the International Ship and Port Facility Security Code (ISPS Code) (a set of measures aimed at enhancing maritime security; They were developed in response to threats to ships and port facilities) (Halkar, G. & Govindrajulu, 2014): Collect security information early and effectively and Exchanging security information between concerned countries and institutions and apply preventive measures to reduce security incidents.

The objectives of this work include identifying and assessing security threats, taking preventive measures for security incidents, and defining the roles and responsibilities of parties at the national and international levels to ensure maritime security.

To apply this code, some requirements need to be considered:

- **International Cooperation:** Requires cooperation between contracting governments, government agencies, local administrations, and the shipping and port sectors to achieve safety
- **Security Information:** Security information must be collected early and effectively to address terrorist threats
- **Maritime Safety:** The Code works to maintain the security integrity of ports in the face of terrorist threats
- **Shared responsibility:** Safety is everyone's responsibility, and all measures must be taken to spread safety at sea and international ports
- **Adequate insurance:** Appropriate levels of insurance must be determined and measures taken to ensure safety (Saroja. & Sujatha, 1999)
- **International Standards:** The Code is part of the SOLAS Convention for the Safety of Life at Sea, and compliance with its provisions is mandatory for all Contracting Parties
- **International Trade:** Aims to protect ships and port facilities used in international trade
- **Security challenges:** Include countering terrorist threats and maintaining security at ports

The basic concept of total quality management aims to constantly improve the quality of products and services provided by the organization. This is done by identifying customer needs and expectations and

meeting them in the best possible ways.

- **Total quality management** includes a number of concepts and tools that help improve the quality of products and services, including (Singh, 2013):
- **Customer care:** The customer is considered the primary focus of total quality management, as the primary focus is on his needs and expectations by listening to his opinions and comments, discussing them, and working to meet them.
- **Paying attention to employees:** Employees are the main element in providing services and products, so Total Quality Management takes great care in providing them with a suitable work environment and providing the necessary training and skills to improve their performance.
- **Operations Management:** Total quality management involves analyzing processes, identifying errors and defects, determining the best ways to improve these processes, and implementing the necessary procedures to ensure the quality of products and services.
- **Leadership commitment:** Leadership's commitment to TQM is crucial to its success, as leadership must be fully committed to implementing this concept and constantly introducing continuous improvements (White, 2019).
- **Continuing improvement:** Total quality management requires continuous improvement and development, as past performance is analyzed, errors and defects are identified, and actions necessary to improve future performance are determined.

The Key benefits of total quality management are (American Society of Quality, 2018):

- **Improving the quality of products and services:** Improving the quality of products and services is the main benefit of TQM, as the overall performance of the organization is improved and customer satisfaction is increased.
- **Improving the organization's productivity:** Total Quality Management identifies inefficient processes and makes necessary improvements to improve productivity and reduce costs.
- **Improving customer relations:** Total quality management contributes to improving relationships with customers and increasing their satisfaction, as their needs are better met and the quality of services is improved.
- **Improving relations with employees:** Total Quality Management improves the work environment and provides employees with the necessary skills to improve their performance and increase their satisfaction.
- **Increase profitability:** Total Quality Management improves quality and productivity and reduces costs, which increases the profitability and financial sustainability of the organization.
- Total quality management faces a number of challenges that must be dealt with effectively, including (Goodson & Lapointe, 2012)
- **Changing the organization's culture:** Total quality management requires changing the organization's culture, improving management and processes, and shifting to a culture focused on continuous improvement.
- **Mobilizing employees: Implementing:** Total Quality Management needs to mobilize employees, provide the necessary training, and motivate them to improve their performance.
- **Setting goals and standards:** Implementing total quality management requires setting clear and well-defined objectives and standards to improve quality.

The importance of comprehensive quality in seaports has been highlighted (Uduk, 2015):

- **Improving services:** Overall quality contributes to improving port services, leading to customer satisfaction and attracting more cargo and passengers
- **Efficiency and Productivity:** Improving quality increases process efficiency and reduces errors, leading to increased productivity and reduced costs
- **Competitiveness:** High-quality ports gain a competitive advantage internationally, attracting more shipments and investments
- **Safety and security:** Comprehensive quality contributes to improving safety and security standards in ports, which protects workers and the environment
- **Transformation to smart ports:** ICT plays an important role in achieving smart seaports, and comprehensive quality enhances this transformation
- **Sustainability:** Comprehensive quality contributes to maintaining the environmental performance of ports and achieving sustainability
- **Improve relationships with partners:** Total quality enhances cooperation with your partners in the logistics chain
- **Providing distinguished services:** Ports with comprehensive quality provide distinguished services for ships and goods
- **Digital transformation:** The application of geographic information systems and information technology enhances the quality of operations in ports
- **Continuous improvement:** Total quality encourages continuous improvement and innovation in port management.

The International Ship and Port Facility Security Code (IPSS) affects the overall quality of life (TQM) in seaports in:

- The International Ship and Port Facility Security (ISPS) Code aims to enhance security and safety in seaports. Although it is not directly linked to the concept of total quality (TQM), it affects quality by improving the safety and safe operation of ships and port facilities¹². These points illustrate how the International Ship Security Code can impact overall quality within seaports:
- **Improving security and safety:** Implementing the requirements of the Code contributes to improving security and safety within ports, which leads to the provision of high-quality services. The more security and safety in the ports, the more ships enter the port, the more revenues and the entry of goods increase, and the quality of the port increases thanks to the International Code for the Security of Ships and Port Facilities (IPS Code).
- **Safety and insurance measures:** The Code specifies the safety and insurance measures necessary to maintain the quality of services and avoid risks (Wu & Chen, 2015).
- **Training and Awareness:** The Code encourages the provision of training and awareness to port workers about safety and quality requirements. Where the Code provides training on ensuring a safe work environment in seaports, and this reflects positively on financial revenues, as the capital of merchants searches for a fully secured work environment, which prompts merchants, importers, and international and foreign companies to work within the ports secured by the International Ship Security Code. And port facilities isps code, which reflects positively on the overall quality (TQM) of ports
- **Inspection and monitoring:** The Code includes inspection and monitoring mechanisms to verify the implementation of safety and quality requirements (Yusr & Othman, 2014).

There is a group of officers working on the inspection and monitoring of the code.

- Ship security officer: it is located on the ship, and his responsibility is the security of the ship, the goods and the ship's cargo.
- Port facility security officer: it is responsible for port security, developing security plans, communicating with the security and administrative authorities in the port, and maintaining the disembarkation of goods from the ship to the port, which makes the goods fully insured, which reflects positively on trade, revenues, and the quality of the port (Zakuan & Shaharoun, 2010).

International Cooperation: The Code encourages cooperation between ports and countries to exchange knowledge and experiences in the field of quality and safety. This spreads the spirit of cooperation between all businessmen and merchants in the world and investors to work and invest within this country and the port that contains the port security application IPS Code because it is a secured land and completely prepared for commercial work, and this is reflected in the comprehensive quality because one of the quality requirements is the entry of revenues and goods at the appropriate time and these revenues are Fully insured (Jung & Wu, 2009)

Although the International Ship Security Code is not directly related to the TQM concept, its application contributes to achieving overall quality objectives within seaports. During the past few years, many developed countries have resorted to applying comprehensive quality management in all their institutions and governmental organizations, while many other developing countries have not taken such measures. The main reason for this is due to the lack of understanding by most of the administrative and leadership cadres in those ports of the principles and concepts. Total quality management and the importance of its application (Berman, 2010).

This study studies the port of Umm Qasr in Iraq, where the port is located at the southern end of Khor Al-Zubair, where it meets Khor Abdullah. The length of the sea at Umm Qasr is about 103 km along Khor Abdullah, and it begins in deep waters off the Arabian Gulf near the mouth of the port. Shatt al-Arab. The Iraqi Ports Authority (IPA) is solely responsible for the tariff, including determining the cost. Marine and river guides are also subject to the Iraqi Ports Authority outside Basrah and not in the port of Umm Qasr. Navigational guides are present at the various buoy locations in the marinas, and the docking process is subject to the availability of berths and the instructions of the control tower in the port. The process of ships leaving the port takes place after completing the necessary exit procedures.

This study explores the complex effects of international norms on putting complete quality management into practice in port operations. The goal of the study is to thoroughly investigate four important aspects of this influence. First, it looks at how following international codes promotes a more competitive atmosphere, which in turn draws more marine traffic to the port. Second, the study looks into how these codes encourage a more comprehensive comprehension of all port operations. It is predicted that better understanding will result in more streamlined processes and increased efficiency. Thirdly, the study looks at how international codes encourage ongoing improvement and operational modifications at the port. These standards are expected to foster an innovative and adaptable culture, helping the port to stay competitive in the rapidly changing marine sector. Lastly, the study looks into how investing in the skills and competencies of the port's workers is encouraged by the implementation of global quality standards. According to the study's hypothesis, these codes will encourage workers to consistently raise productivity and quality through specialised work teams and committees, which would ultimately result in a more effective and efficient port operation. To look at these relationships, 275 workers at Umm Qasr Port in Basrah, Iraq, make up the research population.

2. Problem description

The importance of the study is evident in The contribution of the International Code to ensuring the application of certain procedures to protect ports, ships, goods, and people on board from the risks of security incidents within the port and in accordance with the requirements of local laws and international agreements. The International Code's contribution to establishing procedures to ensure

protection for workers, visitors, ships, and goods from the danger of terrorist organizations and all illegal acts. Moreover, Contribution to the security assessment at seaports by individuals with the necessary skills, considering that this assessment is updated periodically. Also, the contribution of applying the International Code in ports to providing the opportunity for change and continuous development of port operations and considering this as a natural and continuous basis.

In recent years, many countries have taken serious steps to modernize their seaports, but the failure to apply comprehensive quality in its broad sense in those ports often reduces the chances of real competition with other international ports, which calls for taking fundamental measures in the internal management of ports. The Navy ensures the integration of the services it provides, harnesses advanced technology to serve its goals, or quickly responds and interacts with all developments that occur in the maritime transport industry in terms of operational challenges and performance levels. Accordingly, the current study poses the following problem: What is the impact of the international code IPS Code on comprehensive quality (TQM) in seaports in Umm Qasr Port in the city of Basrah?

The following sub-questions arise from the problem of the study:

1. Is there a statistically significant impact relationship between the international code and increasing opportunities for competition and attracting more maritime trade?
2. Is there a statistically significant impact relationship between the international code and full comprehension and understanding of all port activities and work?
3. Is there a statistically significant impact relationship between the international code and the opportunity for change and continuous development of port operations?
4. Is there a statistically significant impact relationship between the international code and greater investment in the capabilities and talents of workers?

3. Study Hypotheses

Scientific research hypotheses represent an opinion to solve the problem that the researcher is studying, and they are formulated in light of the initial information and data that he possesses. They are also considered expectations of the method of solving the study problem. The study hypotheses are determined in:

- The first hypothesis, H₀ (in statistics, is considered true until proven invalid by statistical tests): There is no statistically significant impact relationship between the international code and attracting more maritime trade.
- The second hypothesis, H₀: There is no statistically significant influence relationship between the international code and full comprehension and understanding of all port activities and work.
- The third hypothesis, H₀: There is no statistically significant influence relationship between the international code and the opportunity for change and continuous development of port operations.
- Fourth hypothesis H₀: There is no statistically significant influence relationship between the international code and greater investment in the capabilities and talents of employees.

4. Methodology

In order to achieve the objectives of the study, the descriptive analytical approach was used, which attempts to measure the impact of the characteristics of the learning organization on employee empowerment and institutional excellence in the Ministry of Education in Erbil, the subject of the study. Data was collected from primary and secondary sources as follows: Primary sources: The researcher designed and distributed a questionnaire specifically designed as a tool for collecting data and information necessary to address the analytical aspects of the subject of the study. The Secondary sources: Secondary data sources were used to address the theoretical framework of the study through

Arabic and foreign books and references that dealt with the subject of the study.

5. Overview of Umm Qasr Port

Umm Qasr Port is considered the most important port in Iraq. It consists of two parts: the old berths, which number eight berths, and the new berths, which number thirteen berths. It is a port prepared to receive various general goods, containers, grains, sulfur, and passengers, as the design capacity of the total berths is about (8.850 million tons annually), while the storage capacity is about (614 thousand tons annually).

In the early 1960s, consideration was given to building the port of Umm Qasr due to the increasing expansion of foreign trade movement after 1958 and the fact that the waters in that region are deep, which facilitates the entry of ships with large drafts and larger loads, and the reliance on two ports, in addition to other factors.

Umm Qasr Port is located at longitude (12-57-47) to the east and latitude (40-1-30) to the north, at the southern end of Khor Al-Zubair and its confluence with Khor Abdullah, and it is (66) kilometers from the entrance to the city of Basrah.

6. Building Sidewalks

- Three concrete piers were completed in 1964 with a navigational draft of 9.7 meters.
- The company has paid special attention to developing and expanding the port. Indeed, one of the docks has been modified to become a dock for exporting sulfur transported from the Mishraq fields. It was equipped with an automatic conveyor belt with a length of more than a kilometer with an automatic carrier and a maximum loading capacity (1500 tons/hour) to load the sulfur from its warehouse to Steamships.

7. The expansions that took place in the port

- Developing one of the docks to become a dock for exporting sulfur transported from the Mishraq fields, which was equipped with an automatic conveyor belt one kilometer long with an automatic carrier and a maximum loading capacity of (1500) tons/hour.
- Establishing a special dock for typical containers, 250 meters long and 35 meters wide, equipped with two bridge cranes, each with a capacity of 40 tons, to unload containers.
- Establishing ten new commercial piers on the Umm Qasr River.

Umm Qasr, Iraq's most important commercial port, has been six decades since laying its foundation stone.

"Umm Qasr" was only a small village that included a small fishing port in Basrah Governorate in the far south of Iraq, but its importance began to increase with time due to its strategic location overlooking the Arabian Gulf. On March 26, 1961, the late President Abdul Karim Qasim laid the foundation stone for the port of Umm Qasr, accompanied by the Director General of Ports, Major General Mezher Al-Shawi, and a number of senior officials at the time, making it one of the most important Iraqi ports to this day.

8. Foundation stone

The cost of establishing Umm Qasr port amounted to 18 million Iraqi dinars, and in 1967, the first commercial ship called "Makran" docked there, with the Pakistani flag hoisted on its mast, and it was carrying a large shipment of Ceylon tea.

From then until now, Umm Qasr has been considered the largest and most important Iraqi commercial port. Due to its large area and capacity of activity, the Ministry of Transport decided in 2010 to split it into two ports, each with its administration: the southern port of Umm Qasr and the northern port of

Umm Qasr. The construction of Umm Qasr port also had a positive impact on the lives of people with low incomes of Basrah and the southern governorates, as housing was distributed to workers, as well as bringing machines to lift goods instead of carrying them on shoulders, as was the case previously. The port administration also paid attention to supporting sports and various events.

9. Strategic importance

Umm Qasr is the main port and one of the most important commercial ports for Iraq, as more than 70% of Iraq's foreign trade passes through it, so it is an important vital artery.

The Iraqi economy depends greatly on foreign trade to finance its commodity needs of all types of food, industrial, intermediate, and equipment that are imported through Umm Qasr. The port is also the most important trade route in Iraq because other routes are fraught with risks.

The port is one of the important sources of financing, as it generates financial revenues of more than 1.5 billion dinars per day (equivalent to 1.02 million dollars per day), in addition to providing thousands of job opportunities and can contribute to alleviating the unemployment problem in the south of the country.

Regarding the capacity, the port is divided into three regions, the northern, the middle, and the southern, and its capacity is very large. However, attention is now turning to the Al-Faw port, which Iraq is seeking to complete, which has a capacity of one million containers, and if its construction is completed, it is planned to be one of the transit ports towards the Mediterranean Sea and Europe. As for Umm Qasr, it will remain a local port.

10. Strengthening competitive position and increasing trade activity

The compliance of Umm Qasr Port in the city of Basrah enhances its competitive position in the region and contributes significantly to the efforts undertaken by the Corporation to market the State of Iraq as a leading commercial center for the northern Gulf region in the first phase and for the entire region in the future, especially since the State of Iraq occupies a strategic location nearby. From Iran and the markets of Central Asian countries, as well as Kuwait, the markets of Eastern Europe and Turkey.

11. The study Sample

This study utilised a systematic random sampling technique to choose a sample of 160 employees, using recognised rules for defining the sample. In order to achieve a satisfactory response rate, surveys were distributed to a total of 180 individuals, resulting in a significant return rate of 88.8% (160 questionnaires were collected). After careful review, it was found that all questionnaires matched the specific requirements for inclusion. As a result, there was no need to exclude any questionnaires, and the final sample size for statistical analysis was decided to be 160. The sample demographics indicate a gender distribution of 55% male and 45% female individuals, which is worth mentioning. The inclusion of a balanced representation enhances the ability of the study's findings to be applied to the target population.

Table 1: Gender variable

Statement	Frequency	Percent
male	88	%55
Females	72	%45
Total	160	%100

Source: From formatting and preparing the statistical table based on the statistics program, spss.

Table 2: Age variable

Statement	Frequency	Percent
From 23 to 30 years	26	%16.3
From 31 to 40 years	44	%27.5
From 41 to 50 years	29	%18.1
From 51 to 60 years	53	%33.1
From 61 to 64 years old	8	%5
Total	160	100

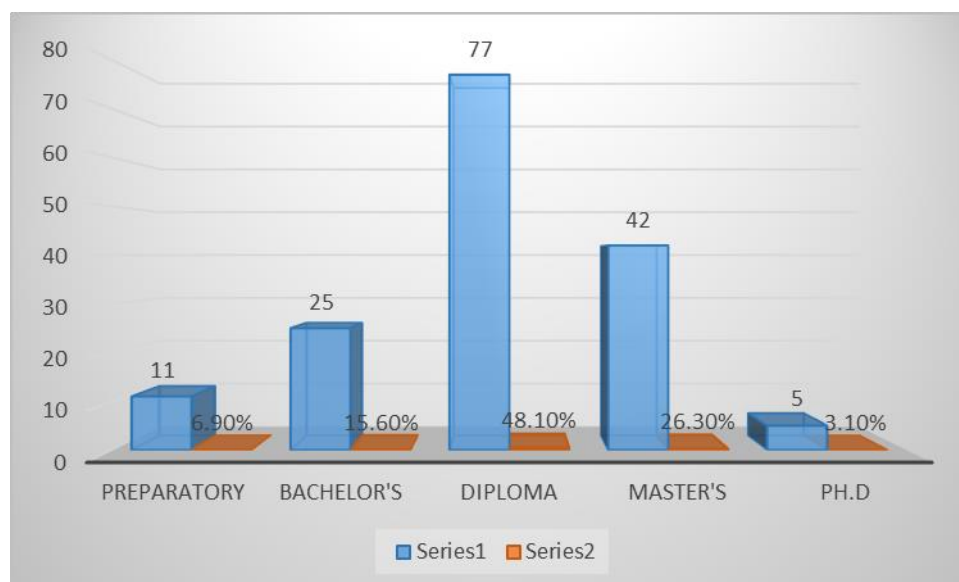
Source: From formatting and preparing the statistical table based on the statistics program, spss.

The study sample exhibited a concentration in the mid-career to senior age range, with the largest proportion (33.1%) falling within the 51–60-year age group. Younger age groups were also represented, with 27.5% aged 31-40, 18.1% aged 41-50, and 16.3% aged 23-30. A small percentage (5%) of participants were aged 61-64 years. In terms of educational attainment, the sample displayed a diverse range of qualifications. Diplomas were the most common credential (48.1%), followed by master's degrees (26.3%). A significant portion of the sample held bachelor's degrees (15.6%), while a smaller percentage possessed preparatory qualifications (6.9%). Notably, 5 participants (3.1%) held the highest qualification of a Ph.D. This variation in educational background enriches the study's generalizability.

Table 3: Educational level

Statement	Frequency	Percent
preparatory	11	%6.9
Bachelor's	25	%15.6
diploma	77	%48.1
Master's	42	%26.3
Ph.D	5	%3.1
Total	160	100

Source: From formatting and preparing the statistical table based on the statistics program, spss.

Figure 2: Educational level

The table and figure above show that the percentage of educational level is 6.9% for the preparatory stage, 15.6% for the bachelor's degree, 48.1% for the diploma level, 26.3% for the master's degree, and 3.1% for those holding a doctorate.

12. Reliability Validity (Cronbach's alpha coefficient)

Cronbach's alpha coefficient is a measure of the internal consistency of statistical tests such as questionnaires and similar scales, and internal consistency or reliability is the extent to which a group of items relate to each other as a consistent group.

The Cronbach's alpha coefficient was calculated for the questionnaire's axes as follows:

Table No. 4: Cronbach's alpha coefficient for the questionnaire axes

Axis/dimensions	Cronbach's alpha coefficient	Number of paragraphs
International Blog	0.876	10
Applying comprehensive quality in ports	0.894	9
Total	0.885	19

Source: From formatting and preparing the statistical table based on the statistics program, spss.

The overall coefficient of Cronbach's alpha above explains that if $0.8 \leq \alpha < 0.9$, then the measurement is good, and the measurement for the study tool was 0.885, meaning it is a good measurement.

Field study

International Blog

Table No. 5: International Code

NO	Variables	I totally disagree	I do not agree	neutral	I agree	Totally agree	SM A	standard deviation	Relative importance	The result
Umm Qasr Port identifies locations where interaction between the ship and the port facility .occurs with the movement of personnel										
1		4	12	18	38	88	4.21	1.07	%84.2	agree
		2.5%	7.5%	11.3%	23.8%	55.0%				
Umm Qasr Port determines the locations where goods or equipment are transferred between the services of the port facility and the ship.										
2		4	12	25	60	59	3.99	1.02	%79.8	agree
		2.5%	7.5%	15.6%	37.5%	36.9%				
Umm Qasr Port determines the docking areas and waiting berths and approaches them from the .open sea										
3		4	8	6	39	103	4.43	0.9	%88.6	agree
		2.5%	5.0%	3.8%	24.4%	64.4%				
Umm Qasr Port works to ensure that certain procedures are implemented to protect ports, ships, goods, and people on board from the risks of security incidents within the port and in accordance .with the requirements of local laws and international agreements										
4		4	8	6	92	50	4.10	0.8	%82	agree
		2.5%	5.0%	3.8%	57.5%	31.3%				
Umm Qasr Port will maintain appropriate additional protective security measures for some time due to the high risk of a security incident.										

5	4	12	7	87	50	4.10	0.941	%82	agree
	2.5%	7.5%	4.4%	54.4%	31.3%				
Umm Qasr Port establishes procedures to ensure protection for workers, visitors, ships, and goods from the danger of terrorist organizations and all illegal acts									
6	4	8	22	87	39	3.93	0.8	%78.6	agree
	2.5%	5.0%	13.8%	54.4%	24.4%				
Umm Qasr Port determines the necessary data needed to issue the security assessment report, and the security survey process is one of the basic steps of the security assessment process									
7	4	12	3	53	88	4.31	1	%86.2	agree
	2.5%	7.5%	1.9%	33.1%	55.0%				
The security assessment at Umm Qasr Port is carried out by people who have the necessary skills, taking into account that this assessment is updated periodically in accordance with the major changes that occur									
8	8	8	1	30	113	4.45	1	%89	agree
	5.0%	5.0%	0.6%	18.8%	70.6%				
Umm Qasr Port uses a long-range dating and tracking system									
9	4	12	1	31	112	4.47	1	%89.5	agree
	2.5%	7.5%	0.6%	19.4%	70.0%				
Umm Qasr Port uses a ship security management system									
10	4	12	6	71	67	4.16	0.9	%83.2	agree
	2.5%	7.5%	3.8%	44.4%	41.9%				
General average						4.26	0.9	%85.2	agree

Source: From formatting and preparing the statistical table based on the statistics program, spss.

The table above shows the opinions of the members of the study sample, employees of the Umm Al-Qasr Port in Basrah, about the dimension of the (International Code), in terms of frequencies and percentages. It also shows the arithmetic mean for each item and its standard deviation, as well as the percentage of importance and the result of the individuals' opinions about the statements. It also shows the general average. For this dimension only, it turns out that the general arithmetic mean is (4.26), and the general standard deviation is (0.9), while the result of the dimension as a whole is agreement with the content of the statements, with a general importance rate (85.2%). The opinions of individuals about each paragraph were as follows:

Statement number (1), its arithmetic mean is (4.21), and the standard deviation is (1.07). The result was agreement with relative importance at (84.2%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (12), I do not agree, and (18) are for a neutral scale, while the repetitions of (38) and (88) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (7.5%), (11.3%), (23.8%), and (55%).

Statement No. (2), its arithmetic mean is (3.99), and the standard deviation is (1.02), while the result was agreement with relative importance at (79.8%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (12), I do not agree, and (25) are for a neutral scale, while the repetitions of (60) and (59) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (7.5%), (15.6%), (37.5%), and (36.9%).

Statement number (3) represents its arithmetic mean of (4.43), and the standard deviation of (0.9). The result was agreement with relative importance of (88.6%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (8), I do not agree, and (6) are for a neutral scale, while the repetition of (39) and (103) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (5%), (3.8%), (24.4%), and (64.4%).

Statement number (4), its arithmetic mean is (4.10), and the standard deviation is (0.8), while the result was agreement with relative importance at (82%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (8), I do not agree, and (6) are for a neutral scale, while the repetitions of (92) and (50) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (5%), (3.8%), (57.5%), and (31.3%).

Statement number (5), its arithmetic mean is (4.01), and the standard deviation is (0.9), while the result was agreement with relative importance at (82%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (12), I do not agree, and (7) are for a neutral scale, while the repetitions of (87) and (50) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (7.5%), (4.4%), (54.4%), and (31.3%).

Statement number (6), its arithmetic mean is (3.93), and the standard deviation is (0.8), while the result was agreement with relative importance at (78.6%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (8), I do not agree, and (22) are for a neutral scale, while the repetitions of (87) and (39) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (5%), (13.8%), (54.4%), and (24.4%).

Statement No. (7), its arithmetic mean is (4.31), and the standard deviation is (1), while the result was agreement with relative importance at (86.2%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (12), I do not agree, and (3) are for a neutral scale, while the repetitions of (53) and (88) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (7.5%), (1.9%), (33.1%), and (55%).

Statement number (8), its arithmetic mean is (4.45), and the standard deviation is (1), while the result was agreement with relative importance at (89%), and the frequencies were as follows: (8) for the scale I do not completely agree, and (8), I do not agree, and (1) are for a neutral scale, while the repetitions of (30) and (113) are for a scale that I agree and agree completely. In percentages, respectively: (5%), (5%), (0.6%), (18.8%), and (70.6%).

Statement number (9), its arithmetic mean is (4.47), and the standard deviation is (1), while the result was agreement with relative importance at (89.5%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (12), I do not agree, and (1) are for a neutral scale, while the repetitions of (31) and (112) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (7.5%), (0.6%), (19.4%), and (70%).

Statement No. (10), its arithmetic mean is (4.16), and the standard deviation is (0.9), while the result was agreement with relative importance at (83.2%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (12), I do not agree, and (6) are for a neutral scale, while the repetition of (71) and (67) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (7.5%), (3.8%), (44.4%), and (41.9%).

Applying comprehensive quality in ports

Table No. 6: Implementing comprehensive quality in ports

NO	Variables	I totally disagree	I do not agree	neutral	I agree	Total agree	SMA	standard deviation	Relative importance	The result
Applying comprehensive quality in ports increases competition opportunities and attracts more maritime trade.										
1		8	8	1	34	109	4.43	1	88.6%	agree
		5.0%	5.0%	0.6%	21.3%	68.1%				
Applying comprehensive quality in ports increases efficiency.										
2		4	8	7	104	37	4.01	0.8	80.2%	agree
		2.5%	5.0%	4.4%	65.0%	23.1%				
Applying comprehensive quality in ports increases efficiency and productivity.										
3		4	12	2	30	112	4.46	1	89.2%	agree
		2.5%	7.5%	1.3%	18.8%	70.0%				
Applying comprehensive quality in ports works to quickly respond to changes.										
4		4	12	7	49	88	4.28	1	85.6%	agree
		2.5%	7.5%	4.4%	30.6%	55.0%				
The application of comprehensive quality in ports provides a solid basis for proper planning.										
5		4	14	2	25	115	4.46	1	89.2%	agree
		2.5%	8.8%	1.3%	15.6%	71.9%				
The application of comprehensive quality in ports facilitates the full comprehension and understanding of all port activities and works.										
6		4	14	2	31	109	4.42	1	88.4%	agree
		2.5%	8.8%	1.3%	19.4%	68.1%				
Comprehensive quality in ports allows for the opportunity for change and continuous development of port operations and considers this a natural and continuous basis										
7		9	14	2	28	107	4.31	1.2	86.2%	agree
		5.6%	8.8%	1.3%	17.5%	66.9%				
Total quality in ports is a greater investment in the capabilities and talents of employees and motivating them to improve quality and productivity continuously and permanently through specialized work teams and committees that release their latent energies										
8		5	12	2	48	93	4.33	1	86.6%	agree
		3.1%	7.5%	1.3%	30.0%	58.1%				
Applying comprehensive quality in ports contributes to developing cultural and artistic awareness among workers.										

9	9	12	2	70	67	4.09	1.1	81.8%	agree
	5.6%	7.5%	1.3%	43.8%	41.9%				
General Average						4.31	1	86.2%	agree

Source: From formatting and preparing the statistical table based on the statistics program, spss.

The table above shows the opinions of the members of the study sample, employees of Umm Al-Qasr Port in Basrah, about the dimension of (implementing comprehensive quality in ports), in terms of frequencies and percentages. It also shows the arithmetic mean for each item, its standard deviation, as well as the percentage of importance and the result of the individuals' opinions about the statements. Also, the general average for this dimension only shows that the general arithmetic mean is (4.31) and the general standard deviation is (1), while the result of the dimension as a whole is in agreement with the content of the statements, with a general importance rate (86.2%). The opinions of individuals about each paragraph were as follows:

Statement No. (1), its arithmetic mean is (4.43), and the standard deviation is (1), while the result was agreement with relative importance at (88.6%), and the frequencies were as follows: (8) for the scale I do not agree, and (8), I do not agree, and (1) are for a neutral scale, while the repetition of (34) and (109) are for a scale that I agree and agree completely. In percentages, respectively: (5%), (5%), (0.6%), (21.3%), and (68.3%).

Statement number (2), its arithmetic mean is (4.01), and the standard deviation is (0.8), while the result was agreement with relative importance at (80.2%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (8), I do not agree, and (7) are for a neutral scale, while the repetition of (104) and (37) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (5%), (4.4%), (65%), and (23.1%).

Statement number (3), its arithmetic mean is (4.46), and the standard deviation is (1), while the result was agreement with relative importance at (89.2%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (12), I do not agree, and (2) are for a neutral scale, while the repetitions of (30) and (112) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (7.5%), (1.3%), (18.8%), and (70%).

Statement number (4), its arithmetic mean is represented by (4.28), and the standard deviation is (1). The result was agreement with relative importance at (85.6%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (12), I do not agree, and (7) are for a neutral scale, while the repetitions of (49) and (88) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (7.5%), (4.4%), (30.6%), and (55%).

Statement number (5), its arithmetic mean is (4.46), and the standard deviation is (1), while the result was agreement with relative importance at (89.2%), and the frequencies were as follows: (4) for the scale I do not agree completely, and (14), I do not agree, and (2) are for a neutral scale, while the repetitions of (25) and (115) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (8.8%), (1.3%), (15.6%), and (71.9%).

Statement No. (6), its arithmetic mean is (4.42), and the standard deviation is (1), while the result was agreement with relative importance at (88.4%), and the frequencies were as follows: (4) for the scale I do not completely agree, and (14), I do not agree, and (2) are for a neutral scale, while the repetition of (31) and (109) are for a scale that I agree and agree completely. In percentages, respectively: (2.5%), (8.8%), (1.3%), (19.4%), and (68.1%).

Statement number (7), its arithmetic mean is (4.31), and the standard deviation is (1.2), while the result was agreement with relative importance at (86.2%), and the frequencies were as follows: (9) for the

scale I do not completely agree, and (14), I do not agree, and (2) are for a neutral scale, while the repetition of (28) and (107) are for a scale that I agree and agree completely. In percentages, respectively: (5.6%), (8.8%), (1.3%), (17.5%), and (66.9%).

Statement number (8), its arithmetic mean is (4.33), and the standard deviation is (1), while the result was agreement with relative importance at (86.6%), and the frequencies were as follows: (5) for the scale I do not agree completely, and (12), I do not agree, and (2) are for a neutral scale, while the repetition of (48) and (93) are for a scale that I agree and agree completely. In percentages, respectively: (3.1%), (7.5%), (1.3%), (30%), and (58.1%).

Statement No. (9), its arithmetic mean is (4.09), and the standard deviation is (1.1), while the result was agreement with relative importance at (81.8%), and the frequencies were as follows: (9) for the scale I do not agree completely, and (12), I do not agree, and (2) are for a neutral scale, while the repetition of (70) and (67) are for a scale that I agree and agree completely. In percentages, respectively: (5.6%), (7.5%), (1.3%), (43.8%), and (41.9%).

Testing the study hypotheses

Testing the first hypothesis, H0: There is no statistically significant impact relationship between the international code and attracting more maritime trade.

In order to accept this hypothesis or not, the (F) test was used to analyze the significance of the simple linear regression model, as shown in the following table according to the following formula:

$$Y=0.19+0.77X1$$

Table No. 7: Testing the first hypothesis

Independent variable: X	Constant	International blog	value (F)		Interpretation coefficient R2
	A	β	Calculated	Schedule 1%	
Dependent variable Y: Attracting more maritime trade	0.19	0.77	197.42	7.07	0.73

Source: Prepared by the researcher based on the outputs of the statistical program (SPSS).

It is noted from the results of the table above:

The calculated (F) value of the simple linear regression model for the dependent variable is equal to (197.42), greater than the tabulated (F) value (7.07), at a significance level (1%), which indicates that the regression coefficient ($\beta = 0.77$) is stable, meaning that Changing the value of one unit in the International Code leads to a change in its value ($\beta = 0.77$), in attracting more international traders, and this means that the significance of the simple linear regression model is proven, which means that the International Code has a significant effect in attracting more international traders.

The value of the explanation coefficient (R2) was (0.73), which means that the International Code explains (73%) of the total changes that occur in attracting more international traders, while the remaining percentage (27%) is due to variables. Others are not included in the current study plan.

This brings us to an important conclusion, which is the existence of a significant influence relationship for the international blog in attracting more international traders.

Testing the second hypothesis, H0: There is no statistically significant influence relationship between

the international code and full comprehension and understanding of all port activities and work.

Table No. 8: Testing the second hypothesis

Independent variable: X	Constant	International Blog	value (F)		Interpretation coefficient R2
	A	β	Calculated	Schedule 1%	
Dependent variable Y: full comprehension and understanding of all port activities and work	0.39	0.54	83.86	7.07	0.53

Source: Prepared by the researcher based on the outputs of the statistical program (SPSS).

It is noted from the results of the table above:

The calculated (F) value of the simple linear regression model for the dependent variable is equal to (83.86), greater than the tabulated (F) value (7.07), at a significance level (1%), which indicates that the regression coefficient ($\beta = 0.54$) is stable, meaning that Changing the value of one unit in the International Code leads to a change in its value ($\beta = 0.54$), in the full comprehension and understanding of all activities and works of the port, and this means that the significance of the simple linear regression model is proven, which means that the International Code has a significant impact on the full comprehension and understanding of all activities and port works.

The value of the explanation coefficient (R2) was (0.53), which means that the International Code explains (53%) of the total changes that occur in attracting more international traders, while the remaining percentage (47%) is due to variables. Others are not included in the current study plan.

This brings us to an important result, which is the existence of a significant influence relationship for the International Code in fully comprehending and understanding all the port’s activities and work.

Testing the third hypothesis, H0: There is no statistically significant impact relationship between the international code and the opportunity for change and continuous development of port operations.

Table No. 9: Testing the third hypothesis

Independent variable: X	Constant	International Blog	value (F)		Interpretation coefficient R2
	A	β	Calculated	Schedule 1%	
Dependent variable Y: Providing the opportunity for continuous change and development	0.35	0.58	77.12	7.07	0.51

of port operations					
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Source: Prepared by the researcher based on the outputs of the statistical program (SPSS).

It is noted from the results of the table above:

The calculated (F) value of the simple linear regression model for the dependent variable is equal to (77.12), greater than the tabular (F) value (7.07), at a significance level (1%), which indicates that the regression coefficient ($\beta = 0.58$) is stable, meaning that Changing the value of one unit in the International Code leads to a change in its value ($\beta = 0.58$), in providing the opportunity for change and continuous development of port operations, and this means that the significance of the simple linear regression model is proven, which means that the International Code has a significant effect in attracting more international traders.

The value of the explanation coefficient (R²) was (0.51), which means that the international code explains (51%) of the total changes that occur in providing the opportunity for change and continuous development of port operations. In comparison, the remaining percentage (49%) is due to To other variables that are not present in the current study plan.

This brings us to an important conclusion, which is the existence of a significant influence relationship with the International Code in providing the opportunity for change and continuous development of port operations.

Testing the fourth hypothesis, H₀: There is no statistically significant impact relationship between the international code and greater investment in the capabilities and talents of employees.

Table 10: Testing the fourth hypothesis

Independent variable: X	Constant	International Blog	value (F)		Interpretation coefficient R²
	A	β	Calculated	Schedule 1%	
Dependent variable Y: Greater investment in employees' capabilities and talents	0.33	0.61	117.03	7.07	0.61

Source: Prepared by the researcher based on the outputs of the statistical program (SPSS).

It is noted from the results of the table above:

The calculated (F) value of the simple linear regression model for the dependent variable is equal to (117.03), greater than the tabulated (F) value (7.07), at a significance level (1%), which indicates that the regression coefficient ($\beta = 0.61$) is stable, meaning that Changing the value of one unit in the International Code leads to a change in its value ($\beta = 0.61$), in a greater investment in the capabilities and talents of employees, and this means that the significance of the simple linear regression model is proven, which means that the International Code has a significant effect in attracting more international traders.

The value of the explanation coefficient (R²) was (0.61), which means that the international code explains (61%) of the total changes that occur from greater investment in the capabilities and talents of workers, while the remaining percentage (39%) is due to variables. Others are not included in the

current study plan.

This brings us to an important result, which is the existence of a significant relationship of influence of the International Code in greater investment in the capabilities and talents of employees.

Conclusions

The study examines the difficulties encountered by seaports in the implementation and compliance with the International Code, with a specific emphasis on Umm Qasr Port in Basrah. This research is unique because it examines how the International Code impacts different elements of port operations, including increasing maritime trade, improving personnel skills, and promoting ongoing improvement. The objective of the study is to examine the substantial influence of the International Code on overall quality in seaports, specifically emphasising Umm Qasr Port. In order to accomplish this objective, the researchers utilised a descriptive-analytical strategy. They adopted a questionnaire as the primary method of data collecting to evaluate the correlation between the International Code and key performance indicators in port operations. The main outcomes are:

1. There is a statistically significant impact relationship between the International Code and attracting more maritime trade.
2. There is a statistically significant influence relationship between the international code and full comprehension and understanding of all port activities and work.
3. There is a statistically significant impact relationship between the international code and the opportunity for change and continuous development of port operations.
4. There is a statistically significant impact relationship between the international code and greater investment in the capabilities and talents of employees.
5. Umm Qasr Port determines the locations where interaction between the ship and the port facility occurs through the movement of personnel
6. Umm Qasr Port works to ensure that certain procedures are implemented to protect ports, ships, goods, and people on board from the risks of security incidents within the port and in accordance with the requirements of local laws and international agreements.
7. The security assessment at Umm Qasr Port is carried out by people who have the necessary skills, taking into account that this assessment is updated periodically in accordance with the major changes that occur.
8. Comprehensive quality in ports allows for the opportunity for change and continuous development of port operations and considers this a natural and continuous basis.

The study examines the difficulties encountered by seaports in the implementation and compliance with the International Code, with a specific emphasis on Umm Qasr Port in Basrah. This research is unique because it examines how the International Code impacts different elements of port operations, including increasing maritime trade, improving personnel skills, and promoting ongoing improvement. The objective of the study is to examine the substantial influence of the International Code on overall quality in seaports, specifically emphasising Umm Qasr Port. In order to accomplish this objective, the researchers utilised a descriptive-analytical strategy. They adopted a questionnaire as the primary method of data collecting to evaluate the correlation between the International Code and key performance indicators in port operations.

Recommendations

Based on the study's conclusions, the researcher recommends:

1. The need for the administrative and leadership cadres in Umm Qasr Port to be convinced of the

principles and concepts of the comprehensive quality system, and for the keenness to implement this system to stem from the principle of concern for the public interest.

2. Working to form a team for comprehensive quality in Umm Qasr Port from specialists.
3. Issuing a guide that includes the procedures followed in all port works and activities.
4. Classifying job titles in Umm Qasr Port and determining the exact description of each job.
5. Adopting a plan to develop the workforce in Umm Qasr Port, while providing an information base on the size and quality of the workforce within the port authority.
6. The necessity of implementing comprehensive quality in the port of Umm Qasr because it works to increase competition opportunities and attract more maritime trade
7. The necessity of implementing comprehensive quality in Umm Qasr Port because it contributes to developing cultural and artistic awareness among workers

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