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## **Retraining of Stevedoring and Dock Workers in Nigerian Ports for Safety Economic Efficiency: Standard School and Curricular**

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### **ABSTRACT**

Dockworkers are prone to injuries and even deaths arising from the occurrence of accidents in the course of discharging their duties. The problems encountered by dockworkers have been attributed to diversity in background aided by their limitations in language skills; and their limited labour skills. This challenge seems to be more common to developing countries like Nigeria where private enterprises hire personnel; and the application of health and safety policies to practice are challenging. In view of this challenges, this study examined the extent to which retraining Stevedoring and Dock workers in Nigerian Ports can enhance safety economic efficiency with a focus on provision of standard school and curricular. The study adopted exploratory study design given the limited study in the sector. Sample size was adopted using purposive sampling technique where 400 respondents (stevedores and dock workers) were randomly selected around Apapa ports. Questionnaire was adopted for data collection and the data collected was retrieved and analyzed descriptively using frequency and percentages. The result from the result indicated that training is inevitable for efficiency, effectiveness, growth, and safety in the port. The study also revealed that having a standard school curricular makes training more contextual and thus effective. Based on this result, the study recommends mandatory training programme for stevedore and dock workers in Nigerian port; and a standard curricular that will embodies all the training needs of the sector and implement accordingly.

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**Keywords:** retraining, stevedoring, dockworkers, safety economic efficiency, standard school and curricular

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### **Introduction**

Ports around the world have been transformed by the development in world trade, modernized forms of cargo handling and the advancement in information and communication technology which enables the effective tracking in the movement of goods from the point of takeoff to delivery. Given this advancements in port operations, there is an increased demand for enhanced skill development and a professional training system. The ports are open to new ways of operation and as such, training programmes are required to help port workers adapt to the changing pattern of labour and supply as well as enable them combine their skills. Training is an ongoing investment, which is a necessity in demanding and dangerous environment such as the port. The essence of training is to enforce appropriate standards and reinforce education for effective productivity and delivery at work (International Labour Organization, 2012).

Ports in Nigeria require attention as they are a description of inefficiency and incompetence, which has greatly affected shipping activities to the extent of mismanaging port operations and manhandling facilities. Ports in Nigeria are challenged by issues of congestion and traffic gridlocks owing to continuous shipping activities. Having hitches in shipping activities and a less than average time in the turnaround of ships has led to Nigerian ports being reported as ineffective. This indicates the necessity of identifying key factors that can boost the operations and efficiency of the seaports. A key factor is the workers, and in this study, attention is paid to the dockworkers. No study to the knowledge of the researcher has been carried out on stevedores and dockworkers in Nigerian Ports in relation to Safety economic efficiency. Stevedore companies refer to companies in charge of overseeing dock workers activities on vessels at berth; as well as supervising their offloading activities on ships (Irinoyemi & Olorunfemi, 2018).

Shipping contributes to the global economy as they enable the transfer of goods between locations using containers loaded on merchant ships. At the end of a ship's voyage, there are workers referred to as dockworkers who offload the ships' content. This implies that directly or indirectly, dockworkers serve the needs of man. However, in spite of their relevance, they are not properly treated and often the least regarded by terminal operators and ship owners, to extent of their safety in the course of work being overlooked. Every worker is entitled to basic education and training; and the ports are no exceptions to this policy. It is particularly important in sectors most exposed to global competition to invest in human and physical capital. According to ILO (2012), the aim behind the development of skills includes the enhancement of productivity through improving the lives of workers, sustaining their enterprises, as well as their social and economic development.

In the case of dockworkers, there seems to be a lack of skills development and total disregard of safety policies, which makes it important to get them into standard school with a properly developed curricular for the purpose of retraining them. To facilitate enhancements in port workers' performance, there is a need to make sure that the workers get appropriate focused training and retraining as often as possible. In training, opportunities and experiences are designed and implemented through a process of learning with the aim of developing the knowledge, attitudes and skills that relates to

the job. For improvements in work performance to be achieved, especially when new work procedures are introduced or when new equipment are purchased, training becomes necessary. Effective training is dependent on the use of successful training methods which are capable of attracting the attention of employees and enhancing the learning process (Teck-Hua & Catherine, 2015)

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### Problem statement

Dockworkers are prone to casualties and even deaths arising from the occurrence of accidents in the course of discharging their duties. The problems encountered by dockworkers have been attributed to diversity in background aided by their limitations in language skills; and their limited labour skills. This challenge seems to be more common to developing countries like Nigeria where private enterprises hire personnel; and the application of health and safety policies to practice are challenging. Shipowners are regularly confronted by stevedores who are unprotected and exposed to limited training, yet expected to be efficient in the discharge of their duties. This puts stevedores at risk of injury. Thus to combat the risks faced by dock workers and create a safer operating environment at the ports, it is important to retrain Stevedores and Dock workers. In view of this the study examine the extent to which Retraining Stevedoring and Dock workers in Nigerian Ports can enhance Safety economic efficiency with a focus on provision of Standard school and Curricular.

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### Research objectives

Specifically, the purpose of this study is to;

1. Identify the training needs of Stevedoring and Dock workers in Nigerian Ports.
2. Determine the extent to which retraining Stevedoring and Dock workers in Nigerian Ports would ensure Safety economic efficiency.
3. Examine the impact of providing a Standard school and Curricular on the retraining of Stevedoring and Dock workers in Nigerian Ports.
4. Identify the benefits of retraining stevedores and dockworkers.

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### Research questions

1. What are the training needs of Stevedoring and Dock workers in Nigerian Ports?
2. To what extent would retraining Stevedoring and Dock workers in Nigerian Ports ensure Safety economic efficiency?
3. What is the impact of providing a Standard school and Curricular on the retraining of Stevedoring and Dock workers in Nigerian Ports?
4. What are the benefits of retraining stevedores and dockworkers?

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### Literature review

A port is an entry point and a transit area that links one country to another (Orji, 2014) associated with activities such as operation of vessels, handling of cargo, etc. In the maritime industry, port work is one of the most dangerous jobs as it involves using heavy machines and accessing workplaces that are sensitive and risky, heavy traffic and movement as well as cargoes that are hazardous (Hinka et al., 2016) and as such, individuals who work in ports require frequent trainings to improve safety and enhance efficiency.

Stevedoring is a profession that involves the loading and offloading of cargos on ships as well as other port functions (Khan, 2014). Individuals in this profession are called stevedores, dock workers or longshoremen. The importance of dockworkers in ports cannot be overemphasized as they are vital to terminal performance and port competitiveness in general. They handle cargo, load and unload ships and are a key production factor for terminal operations. There are different risk levels associated with working in ports, depending on the job category of the dockworker.

Even though there are no formal training for dock workers to carry out tasks on loading docks, there is, nevertheless, plenty of worksite-specific training that every dock worker and stevedore should be well knowledgeable in and the most important things the training should cover are: common loading dock hazards and hazard-causing behaviours; common personal protective equipment (PPE), the purpose they serve and how they should be used; how to keep pedestrians safe using effective communication methods, barriers and tips to stay alert; and emergency procedures and protocols (Barrett, 2019). Retraining simply means to train again and it involves reacquainting a person with skills that are either new or been previously learned. This can be done once or as frequently as needed. In retraining, new skills are learnt and, in some cases, old skills are revisited to improve the worker's efficiency (Bhasin, 2020). Retraining should be offered when there is new technology that needs implementation, when workers lack necessary skills, when new policies are put in place and also when there is low motivation amongst workers.

Benefits of retraining include eliminating safety concerns as retraining provides the opportunity to minimize mistakes due to lack of knowledge, updating skills of workers, enhancing performance of employees as their skills are amplified through retraining, enhanced performance, better work environment, improving self-confidence of workers which will in turn improve their attitude to work, increases loyalty as workers tend to remain where they are treated better.

A standard school and curricular on retraining dockworkers is necessary to help them define the skills they already possess and those they need for the specific jobs they are assigned to, of which the training will help them achieve (Hinkka et al., 2016).

## Theoretical framework: Human capital theory

The human capital theory postulates that human beings can increase their productive capacity through better education and skills training. It talks about the educational attainment, experience, skills and knowledge of an employee and maintains that companies have an incentive to pursue productive human capital and to enhance the human capital of their existing workers (Ross, 2021). Human capital pronounces each individual employee capabilities, brought and required, will lead to an increase in economic value in all capacities of an industry, and can be viewed as an investment for the industry. Human capital integrates an employee's skills, abilities, knowledge, experience and competencies. In the development of human capital, training is a key element and contributes to economic capital stock and should be provided to employees to form a link between the competencies of current employees and the competencies required by the industry (Sari, 2015).

## Methodology

The study is exploratory in nature, given that it has not been addressed scholarly. Purposive sampling method was adopted in selecting Apapa ports, as it is the largest port in Nigeria with a large number of workers found there. Employing the random sampling method, four hundred stevedores and dock workers were selected as respondents for the study. Questionnaires were used as the source of data collection, which was designed using a four point likert scale format and distributed to the respondents with the aid of research assistants recruited for such purpose and immediate retrieval. The dockworkers were approached during their break time and informed about the study, consent was obtained before distribution. The data collected was analyzed descriptively using frequency and percentages.

## Data Presentation, Analysis and Discussion

### RQ1: What are the training needs of Stevedoring and Dock workers in Nigerian Ports?

**Table 1: Opinion of the Respondents on the training needs of Stevedoring and Dock workers in Nigerian Ports**

Statements		SA	A	D	SD	Percentage agreement (%)
Occupational safety and health	F	172	161	52	15	83.3
	%	43	40.3	13	3.8	
Technological knowledge	F	269	119	7	5	97.1
	%	67.3	29.8	1.8	1.3	
Cargo handling efficiency	F	177	214	7	2	97.8
	%	44.3	53.5	1.8	0.5	
Protection of the natural environment in and around the port area	F	197	154	28	21	87.8
	%	49.3	38.5	7.0	5.3	
Use of personal protective equipment (PPE)	F	269	119	7	5	97.1
	%	67.3	29.8	1.8	1.3	
Awareness of the hazards associated with the terminal/ship	F	172	161	52	15	83.3
	%	43	40.3	13	3.8	

Source: Field Survey, 2021

The first research question investigated the training needs of Stevedoring and Dock workers in Nigerian Ports. Table 1 presents the opinion of the respondents on the training needs of Stevedoring and Dock workers in Nigerian Ports. As indicated in the table, the following are needs for training stevedoring and dock workers in Nigerian ports: occupational safety and health, technological knowledge, cargo handling efficiency, protection of the natural environment in and around the port area, use of personal protective equipment (PPE), and awareness of the hazards associated with the terminal/ship. This result confirms the earlier studies by Bhasin (2020), Barrett (2019); and Hinkka et al., (2016) who shared similar reasons as the needs to train and retrain stevedoring and Dock workers.

RQ2: To what extent would retraining Stevedoring and Dock workers in Nigerian Ports ensure Safety economic efficiency?

**Table 2: The respondents' opinion of extent would retrain Stevedoring and Dock workers in Nigerian Ports ensure Safety economic efficiency**

Statements		SA	A	D	SD	Percentage agreement (%)
Retraining Stevedoring and Dock workers will provide them with the competencies they need to perform efficiently	F	271	109	13	7	95.1
	%	67.8	27.3	3.3	1.8	
Retraining Stevedoring and Dock workers will ensure that workers are equipped to meet their current job demands	F	157	182	51	10	84.8
	%	39.3	45.5	12.8	2.5	
Retraining Stevedoring and Dock workers will ensure that port operations are efficient and profitable, and customers will be well served.	F	215	119	51	15	83.6
	%	53.8	29.8	12.8	3.8	
Retraining Stevedoring and Dock workers will raise standards and promote good practice	F	204	159	37	0	90.8
	%	51.0	39.8	9.3	0.0	

Source: Field Survey, 2021

The second research question was formulated to determine the extent to which retraining Stevedoring and Dock workers in Nigerian Ports will ensure Safety economic efficiency. The result of this study, with above 83% support from the respondents to all the items in the table, the study indicated the following as the extent for retraining Stevedoring and Dock workers in Nigerian Ports: Retraining Stevedoring and Dock workers will provide them with the competencies they need to perform efficiently; Retraining Stevedoring and Dock workers will ensure that workers are equipped to meet their current job demands; Retraining Stevedoring and Dock workers will ensure that port operations are efficient and profitable, and customers will be well served; Retraining Stevedoring and Dock workers will raise standards and promote good practice. This result confirms the findings from an earlier study by Barrett (2019) who shared similar outcome.

RQ3: What is the impact of providing a Standard school and Curricular on the retraining of Stevedoring and Dock workers in Nigerian Ports?

**Table 3: Opinion of the Respondents on the impact of providing a Standard school and Curricular on the retraining of Stevedoring and Dock workers in Nigerian Ports**

Statements		SA	A	D	SD	Percentage agreement (%)
Providing a standard school and curricular helps dockworkers to define the skills they already possess	F	180	213	7	2	98.3
	%	45.0	53.3	1.8	0.5	
Providing a standard school and curricular helps dockworkers identify and apply skills they need for the specific jobs they are assigned to	F	154	210	2	34	91.00
	%	38.5	52.5	0.5	8.5	
Providing a standard school and curricular attracts the attention of employees and enhance the learning process	F	198	165	7	30	90.8
	%	49.5	41.3	1.8	7.5	

Source: Field Survey, 2021

The table above indicated the opinion of the respondents on the impact of providing a Standard school and Curricular on the retraining of Stevedoring and Dock workers in Nigerian Ports. With above 90% of the respondents agreeing to each of the items in the questionnaire, the following are the impact

of providing a standard school and curricular on the retraining of stevedoring and Dock workers in the Nigerian Ports: Providing a standard school and curricular helps dockworkers to define the skills they already possess; Providing a standard school and curricular helps dockworkers identify and apply skills they need for the specific jobs they are assigned to; and providing a standard school and curricular attracts the attention of employees and enhance the learning process supporting the items in. This result of the study revealed that Irinyemi and Olorunfemi (2018).

#### RQ4:What are the benefits of retraining stevedores and dockworkers?

**Table 4: Opinion of the Respondents on the benefits of retraining stevedores and dockworkers**

STATEMENTS		SA	A	D	SD	Percentage agreement (%)
Retraining stevedores and dockworkers will eliminate safety concerns	F	242	115	7	36	89.3
	%	60.5	28.8	1.8	10.7	
Retraining stevedores and dockworkers updates their skills	F	113	259	21	7	96.00
	%	28.3	64.8	5.3	1.8	
Retraining stevedores and dockworkers enhances performance of employees	F	248	152	0	0	100.00
	%	62.0	38.0	0.0	0.0	
Retraining stevedores and dockworkers enables a better work environment	F	197	126	56	21	80.8
	%	49.3	31.5	14.0	5.3	
Retraining stevedores and dockworkers improves self-confidence of workers and their attitude to work	F	154	210	2	34	91.00
	%	38.5	52.5	0.5	8.5	
Retraining stevedores and dockworkers increases loyalty of workers	F	215	119	51	15	83.6
	%	53.8	29.8	12.8	3.8	
Retraining stevedores and dockworkers provides the opportunity to minimize mistakes due to lack of knowledge	F	177	214	7	2	97.8
	%	44.3	53.5	1.8	0.5	

Source: Field Survey, 2021

Table 4 above presents the opinion of the respondents on the benefits of retraining stevedores and dockworkers. As indicated in the Table above, the following are the reasons for retraining stevedores and dockworkers: Retraining stevedores and dockworkers will eliminate safety concerns; retraining stevedores and dockworkers updates their skills; retraining stevedores and dockworkers enhances performance of employees; retraining stevedores and dockworkers enables a better work environment; retraining stevedores and dockworkers improves self-confidence of workers and their attitude to work; retraining stevedores and dockworkers increases loyalty of workers; and retraining stevedores and dockworkers provides the opportunity to minimize mistakes due to lack of knowledge. The result supports Hinkka, et al (2016) and Teck-Hua and Catherine (2015) respectively who also revealed the importance of continuous workers' training in order to adapt to the changing needs of the port.

## Conclusions and Recommendations

The human capital theory postulates that human beings can increase their productive capacity through better education and skills training. Based on this theory, it is imperative that the more training employee receives the more efficient and dynamic they become. All the employees' capabilities and skills are needed to not just improve the performance of their immediate organization, but also to increase the overall economic value of the industry. Regardless of the organization, training is inevitable for growth and development as it is important in adapting to change which is inevitable every business. The result of this study has clearly proven that training and retraining Stevedores and Dockworkers is essential improving efficiency and safety in the port. The study also revealed that having a standard school curricular makes training more contextual and thus effective. Based on this result, the study recommends mandatory training programme for stevedore and dock workers in Nigerian port.

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## Appendix

**REQUEST FOR INFORMATION**

Dear Respondent,

I am carrying out a study on “retraining of stevedoring and dock workers in Nigerian ports for safety economic efficiency: standard school and curricular”, and you have been chosen to be part of the study. This questionnaire is only for academic purposes. Kindly select the response which applies to you and all information will be kept confidential

Instructions: Please tick (√) as appropriate where

SA = Strongly Agree (SA), A = Agree, D = Disagree (D), SD = Strongly Disagree (SD)

**Key: Strongly agree (4), Agree (3), Disagree (2), and strongly disagree (1).**

S/N	ITEMS	SA	A	D	SD
<b>RQ1</b>	<b>What are the training needs of Stevedoring and Dock workers in Nigerian Ports?</b>				
1	Occupational safety and health				
2	Technological knowledge				
3	Cargo handling efficiency				
4	Protection of the natural environment in and around the port area				
5	Use of personal protective equipment (PPE)				
6	Awareness of the hazards associated with the terminal/ship				
	<b>To what extent would retraining Stevedoring and Dock workers in Nigerian Ports ensure Safety economic efficiency?</b>				
7	Retraining Stevedoring and Dock workers will provide them with the competencies they need to perform efficiently				
8	Retraining Stevedoring and Dock workers will ensure that workers are equipped to meet their current job demands				
9	Retraining Stevedoring and Dock workers will ensure that port operations are efficient and profitable, and customers will be well served.				
10	Retraining Stevedoring and Dock workers will raise standards and promote good practice				
	<b>What is the impact of providing a Standard school and Curricular on the retraining of Stevedoring and Dock workers in Nigerian Ports?</b>				
11	Providing a standard school and curricular helps dockworkers to define the skills they already possess				
12	Providing a standard school and curricular helps dockworkers identify and apply skills they need for the specific jobs they are assigned to				
13	Providing a standard school and curricular attracts the attention of employees and enhance the learning process				
<b>RQ4</b>	<b>What are the benefits of retraining stevedores and dockworkers?</b>				
14	Retraining stevedores and dockworkers will eliminate safety concerns				
15	Retraining stevedores and dockworkers updates their skills				
16	Retraining stevedores and dockworkers enhances performance of employees				
17	Retraining stevedores and dockworkers enables a better work environment				
18	Retraining stevedores and dockworkers improves self-confidence of workers and their attitude to work				
19	Retraining stevedores and dockworkers increases loyalty of workers				
20	Retraining stevedores and dockworkers provides the opportunity to minimize mistakes due to lack of knowledge				

Thank you