

CHALLENGES AND PROSPECTS OF MANPOWER DEVELOPMENT OF NIGERIA MARITIME INDUSTRY, CASE STUDY OF NIMASA.

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ABSTRACT

The study aimed the challenges and prospects of manpower development of Nigeria maritime industry with specific reference to Maritime Administration and Safety Agency (NIMASA) in Apapa, Lagos State. Specific objectives of the study include to; determine whether inadequate funding, knowledge and technological change impedes manpower development. The researcher adopted survey research design, finite population was used, with sample size of 250. Question Pearson Correlation Coefficient was used for the study. Findings from the Study showed that; inadequate funding, knowledge and technological change impedes manpower development. The study concluded that the varying strength of the challenges to manpower development employed in this study by the Maritime Administration and Safety Agency, should be given attention according to their predictive ability on manpower development. The study recommended among others that the federal government should make funds available for the purchase of a full mission simulator for STCW compliant training for cadets and other seafarers. The Study also recommended that the Nigerian maritime industry should incorporate knowledge management strategies into their overall business strategies. In addition, it is suggested that regular Information and communication technology training and development should be enhanced so as to allow proper interactions between human resource management and the different departments in the Nigeria maritime industry which could lead to the organizational efficiency.

Key Words: NIMASA; Manpower Development; Maritime industry; STCW; Technological change

1.0 INTRODUCTION

The major objective of every organization, whether private or public, is to improve its productivity, and this achievement to a great extent is determined by the abilities and competencies of its workforce. Responsible organizations recognize that human resources are their main resource in achieving the desired objectives. Consequently, workers must be equipped and trained adequately to ensure that their knowledge, skills, and abilities facilitate the attainment of organizational goals and objectives.

Onah (2003), affirmed that manpower is the premise of all other resources utilized in production and therefore an indispensable factor in converting other resources to the benefit of mankind. In this way, how well we prepare a worker is central to choosing the amount we will fulfil our dreams as a country. Therefore, manpower training should be an integral part of every organization. This is because manpower training enhances employee productivity, thereby contributing significantly to the achievement of the organizational objectives (Banjoko, 2011)

Manpower training therefore plays significant role in guaranteeing that the predetermined goals of the maritime industry are achieved. This is important because the maritime industry consists of individuals who are major instrument that delivers maritime services.

To validate this assertion, Singh and Mohanty, (2012), posit that training is a central and powerful instrument for the effective attainment of organizational objectives and goals, resulting in greater productivity. As such, the accomplishment of an organization to a great extent relies on the capabilities and skills of the employees at the administrative and lower levels of the organization and such capacities and ability for the most part originate from the knowledge and training they receive (Dialoke,etal., 2016). Also, training is fundamental in view of the evolving technology; the automated work environment; the rapid transformation in administrative settings, accompanied by the demands of diversity management as hallmarks and symbols of globalization. The role of personnel training is inevitable, as many organizations have come to realize that training remains the only medium for increasing abilities, improving productivity, ensuring the retention of work standard and enhancing employee's allegiance to the organization (Dialoke, etal., 2016).

The maritime industry which is a sub-sector of the transport sector, accounts for nearly 90 percent of transport requirement of the world Ikokide and Aro (2000). Maritime industries include all enterprises engaged in the business of designing, constructing, manufacturing, acquiring, operating, supplying, repairing and/or maintaining vessels, or component parts thereof: of managing and/or operating shipping lines, and customs brokerage services, shipyards, dry docks, marine railways, marine repair shops, shipping and freight forwarding services and similar port side enterprises (Purba, 2015).

Developing local manpower in the Nigerian maritime industry is of great importance due to the position of the industry in the national economy. Every economic activity in any nation is directly or indirectly linked with the activities in the maritime sector. It is widely believed that knowledge, in terms of human and social capital, is the main production factor in today's economic environment (Almeida, etal., 2014).

One of the most prominent problems facing the transport industry is the lack of adequate human resource development or manpower development to service the industry Okeudo and Ogwude, (2012). They further opined that, the human factor is the most sensitive and volatile of all factors of input in production and therefore requires proper handling so that the other factor inputs can be properly harnessed to the utmost advantage of all in the industry.

The maritime industry requires full development of capacities such as human capacity, infrastructures, technology, and integrated transport system and among others. Such a valued industry deserves well developed manpower's to handle the affairs of the industry in accordance with the international standard and practices. Currently, the present state of Nigerian maritime industry in relation to human capacity affects its productivity, policies, principles, standards and practices. The human capacity development in the industry is appalling in such a way that, the industry record results such as increase in ship-turnaround time, congestion due to complexity in documentations, poor stevedoring activities, high port charges, foreign dominations, and pilferages and among others. These could be as a result of absent of adequate manpower to critically organize and harmonize the process of ship calling at port and its departure. Developing efficient manpower in the industry is paramount to tackle the problems confronting the industry especially the work of unprofessional and encouraging the employment of our locally trained professionals from our local institutions to take control of the industry as stipulated in the cabotage policy enacted in 2003. Ikokide and Aro (2000).

It is also to note that, in maritime industry, human capacity development and capacity building are important in the areas of manning, ownership and operations of ships in cabotage trade. Without the acquisition of a ship, a local operator would not be able to build local capacity in the art of Technology transfer, and also in the technicality and management of ships, Government under the administrations of NPA, NIMASA need to encourage the training of maritime workers locally in our institutions in the practice of shipping and genuinely implement the Cabotage Act. (Ndikom, 2004).

The Nigerian Maritime Administration and Safety Agency (NIMASA), formerly the National Maritime Authority (NMA) is responsible for regulations related to Nigeria shipping, maritime labour and coastal waters. The agency also undertakes inspections and provides search and rescue services (Aderibige, 2011). The governing board includes representatives of the Ministry of Labour, the Ministry of Transport and the Navy. The National Maritime Authority (NMA), predecessor of NIMASA, was established by the Shipping Policy Decree of 11 May 1987, and was supervised by the Federal Ministry of Transport. Its mandate was to ensure orderly development, protection and manpower training in the shipping industry (Airahuabhor, 2020). The NMA also was given responsibility for monitoring marine pollution and spillage in Nigerian waters, (Amjadi, et al., 1996).

On this note, this study critically examined the challenges and prospects of manpower development in the Nigerian maritime industry with specific reference to the Nigerian Maritime Administration and Safety Agency (NIMASA), Apapa, Lagos State.

Several factors affects cabotage vessels finance fund in Nigeria. Among which are; lack of specification of designated amount meant for the Cabotage Vessels Finance Fund as captured in “the Fund”. This gives room for gross administrative anomaly. Secondly, commercial banks, which are the depositories to the Cabotage Vessels Finance Fund (see Part V111 Section 44) lack proper understanding of shipping industry and thus incapacitated to providing investment and financial advice for the investors. Thirdly, foreign bankers on their part always still cite inadequate collaterals (Ekpo, 2012), together with socio-political instabilities, as impediments to loaning Nigerian shippers.

Also, the weak and inadequate financial starting point for the Cabotage Vessels Finance Fund by the government actually reveals some challenges. In this modern and competitive market of the emerging economies of the globe, how could Nigeria deem it fit, as captured by (Ajiye, 2013), to apportion mere twenty five million dollars (\$25 Million) for development of shipping industry? It is simply a bad beginning for local content especially when there is still problem of misappropriation! To this end, the possibilities of accessing loans to support genuine stakeholders in the industry have been drastically made impossible by inadequate collaterals and other factors.

Fourthly, other cognate institutions like insurance is detracted financially to render specialized services to the Cabotage system. The end result of these are handicapped shipping industry with negative effects on employment and economy generally.

However, due to limited studies based on the subject, none of these research works have delved substantially on the issue especially in investigating the rationale behind the effects of Cabotage Vessels Finance Fund on the growth of maritime industry in Nigeria. To this end, this study bridges the gap in knowledge by examining the effects of Cabotage Vessels Finance Fund on the growth of maritime industry in Nigeria, Onne Sea Port.

The main objective of the study is to examine the challenges and prospects of manpower development in the Nigerian maritime industry with specific reference to Nigeria Maritime

Administration and Safety Agency (NIMASA), Apapa, Lagos State; Specific Objectives, include to:

- i. Examine whether lack of adequate funding impact manpower development in the Nigerian maritime industry.
- ii. Evaluate whether technological changes impact manpower development in the Nigerian maritime industry.
- iii. Assess whether knowledge based challenges impact manpower development in the Nigerian maritime industry.

To provide answers to the above research problems, the researcher ask the following research questions;

- i. To what extent does lack of adequate funding impact manpower development in the Nigerian maritime industry?
- ii. What is the nature of relationship between technological changes and manpower development in the Nigerian maritime industry?
- iii. To what degree does knowledge based challenges impact manpower development in the Nigerian maritime industry?

To achieve the research objectives, the following hypotheses were formulated and tested by the study:

- i. Lack of adequate funding does positively and significant impacts on manpower development in the Nigerian maritime industry.
- ii. Technological changes do not significantly impact manpower development in the Nigerian maritime industry.
- iii. Knowledge based challenges does not significantly impact manpower development in the Nigerian maritime industry.

2.0 Literature Review

The review of relevant literature was built into four main parts. These include the conceptualizations, theoretical frameworks, the empirical studies, conceptual framework and the gaps existing in the literature which this study intend to fill.

2.1. Conceptualizations

Concepts relevant to this study were reconstructed here. The independent and dependent variables and their measures were defined and explained. The dependent variable is challenges, while the independent variable is manpower development,

2.1.1 The Concept of Manpower Development

Concept of manpower development according to (Omole, 2004) is the building and enhancement of human resources through formal education and training, asserts that human resources development is concerned with providing learning and development opportunities making training intervention and planning, conducting and evaluating training programmes. He further disclosed that the aim of manpower development programme is to see that the organisation has the best and quality workforce it needs to attain its goals for improved performance. Therefore, manpower development is defined as a process of extensive education, planning, training and evaluation of training programmes on the employees in order to boost

their performance in an organisation. (Armstrong, 2004), posited that human resource development is concerned with the provision of learning, development and training opportunities in order to improve individual, team and organisational performance. (Hamlin, 2004), examines different views and definitions of Manpower Development and submits that it implies any activity which deliberately attempts to improve a person's skill in a job. It also creates learning in the areas of knowledge, skill, experience and attitudes. Furthermore, perceives manpower development as a form of specialised education aimed at giving the trainee a particular or specialized knowledge, skill and attitude which he must possess to effectively perform in a given position.

2.2 Challenges of Manpower Development.

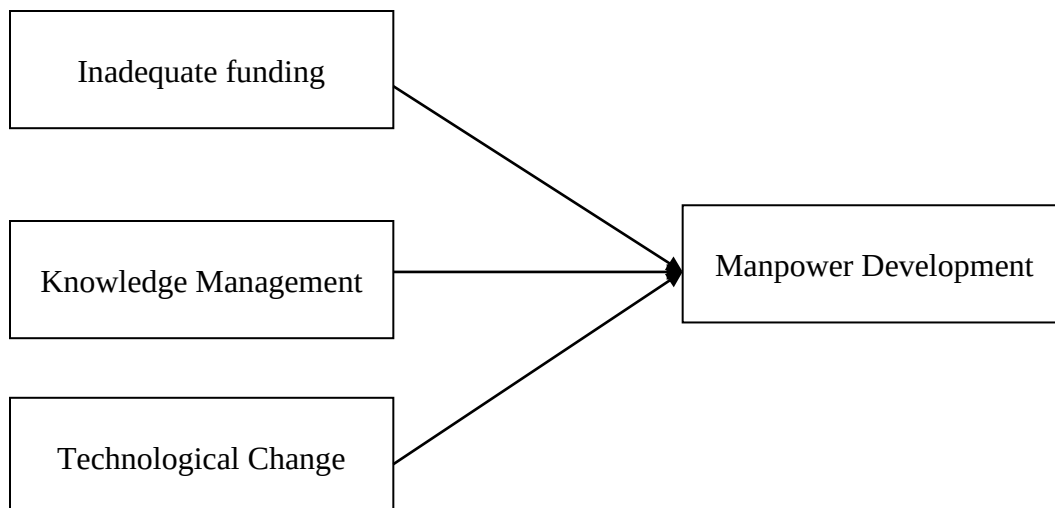
2.2.1 Technological Change

Technological change is the ability to change the market environment by participating in cost reductions, product features and its existence in the market. As a result, technological change can increase the speed of introducing products in the market (Dahlman, 2007). Technological change transforms human nature interaction with work; it also transforms market nature by changing product cost and features. Furthermore, in order to implement technologies, the support of top management is required, and they have to provide clear leadership and articulate technology. It also requires a technological change which includes tracking new technology, changing organizational culture, and setting new personnel tasks, (Trainor, et al., 2011).

Moreover, technological change brings innovation, and over the last twenty years, it has become a very important topic due to the fact that it is vital and of significance for organizations to survive. Based on the researcher's view, technological change is the introduction of new strategies and practices in order to increase the efficiency of a product or process. This is when organizations invent or improve a product or process to gain a better reward from the same amount of work. Moreover, it is considered to be an important key for companies to survive throughout all the changes which markets are facing. (Alameri, 2013).

2.2.2 Lack of requisite Knowledge

Knowledge is a mix of experience, values, contextual information, and expert insight that forms the framework for new experience and information. It originates and applies in the minds of knower's. It is represented in the organization as documents, processes, practices and norms



Monavvarian and Kasaei. (2007). It can be generated and organized in an efficient way and it comes in two different forms that have an impact on the quality of decisions: tacit knowledge and explicit knowledge. Tacit knowledge is information that is gained through experience that is difficult to express, formalize and share, it can't be described in words Kreitne and Kinicki (2010) 2010). It resides in the human mind, behaviour and perception, tacit knowledge can be categorized into two types: first is the technical which is related to the depth of expert knowledge, and second is the cognitive dimension which consists of schemata, mental models, beliefs, and perceptions. In contrast, explicit knowledge is the information that can be easily put into words and explained to others, it can be shared verbally or in documents or in numerical reports Bourdreau and Couillard (1999).

2.2.3 Lack of adequate funding

When funding is mentioned, the first thing that comes to mind is the availability of money for meeting the need for a given project or programme. It is a system of apportioning available capital belonging to an organization for meeting a need. Funding refers to a form of financial support that is given for the achievement of a project, funding is the provision of financial resources in order to meet a need, project or program. Money needed to run a project or programme in the school may be raised from within or outside the school. When funds are generated, they are usually disbursed based on the needs of the school. The process of making the acquired funds available to the units that require them either in the short or long run is referred to as funding (Airahuabhor, 2020).

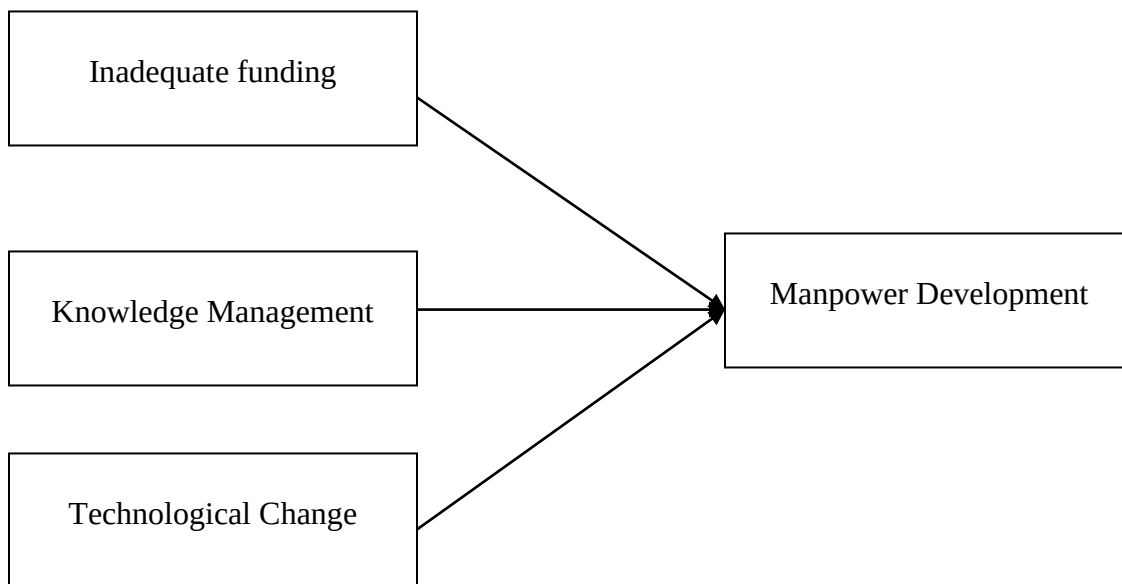


Fig. 2.1: Conceptual Framework.

Source: Researcher's (2020).

There exist three predictors that are lack of adequate funding, knowledge based challenges, and technological changes. The dependent variable is manpower development.

2.3 Theoretical Framework

Dobson and Boodoo (2013), in their contributions to the literature on endogenous growth theory emphasized the importance of human capital formation in the growth process, that is, the use of resources to educate and augment the productivity abilities of the labour force. This is buttressed by the opinion of (Casio, 2005) that referred to human capital formation as to the process by which educated, skilled and trained persons are increased in a country. Accordingly, human capital formation is the act of increasing the productive qualities of labour force by providing more education and by increasing skill and health. The theoretical framework most responsible for the wholesome adoption of manpower development policies has come to be known as human capital theory.

2.3.1 Human Capital Theory

Human Capital idea is closely related to Adam Smith in the 18th Century. Human Capital theory is an important determinants of poverty. Theodore Schultz in 1960 announced the birth of Human Capital theory, it was four years after that Garry Becker in 1964 in the preliminary chapters of the monogram “Human Capital”, which has served as the *locus classicus* of the subject, it explains both individuals decisions to invest in human capital i.e. education and training and the pattern of individual,s lifetime earnings. Individuals’ earnings start out low when an individual is young and increases with age, earnings drop as an individual nears retirement. (Mark,1976). The researchers choice for choosing the Human Capital theory is primed on the notion that Manpower development and Education do have a symbiotic relationship.

Human capital theory rests on the assumption that formal education is highly instrumental and necessary to improve the productive capacity of a population. In short, human capital theorists argue that an educated population is a productive population. Human capital theory emphasizes how education increases the productivity and efficiency of workers by increasing the level of cognitive stock of economically productive human capability, which is a product of innate abilities and investment in human beings. The provision of formal education is seen as an investment in human capital, which proponents of the theory have considered as equally or even more worthwhile than that of physical capital. Dobson and Boodoo, (2013).

The concept of human capital development has stimulated the scholars to debate around various interesting questions. For example, what constitutes human capital development? How human capital development affects productivity of the maritime sector? A great deal of literature is available to answering these questions. In this research, a few theoretical human capital development models will be espoused. Human capital plays a key role in versions of both neoclassical and endogenous growth models (Anyanwu, etal, 2015). It is an aggregate economic view of the human being acting within economies, which is an attempt to capture the social, biological, cultural and psychological complexity as they interact in explicit and/or economic transactions. Many theories explicitly connect investment in human capital development to education, and the role of human capital in economic development, productivity growth, and innovation has frequently been cited as a justification for government subsidies for education and job skills training (Simkovic, 2013).

Anyanwu, et al. (2015) further opined that while endogenous growth models indicate that a society/sector with higher incentives for human capital investments would generate higher growth, it is not clear how the social incentives for human capital should be structured across different education levels. Human capital development in the maritime sector is another viable avenue through which the government can generate numerous jobs. Human Capital Theory (HCT) concludes that investment in human capital will lead to greater economic outputs however the validity of the theory is sometimes hard to prove and contradictory. In the past, economic strength was largely dependent on tangible physical assets such as land, factories and equipment. Labour was a necessary component, but increases in the value of the business came from investment in capital equipment. Modern economists seem to concur that education and health care are the key to improving human capital and ultimately increasing the economic outputs of the nation. (Almendarez, 2013)

2.4 Empirical Studies

Serge, et al., (2017) examined the impact of Information and Communication Technology on the efficiency of Human Resource Management in the Cameroon mobile Telecommunication Sector. It specifically seeks to investigate how the use of ICT affects the following human resource s management practices; Human resource planning, training and development, selection and recruitment, human resource evaluation and compensation. An exploratory research design was employed in the study. A sample of 120 managements, senior, junior and contract staffs of the 03 (three) main mobile telephone operators responded to a structured questionnaire. The data collected was coded and entered into SPSS version 17. Pearson correlation coefficient was used to establish the relationship between the variables in the study, regression analysis was used to establish the combined effect of study variables on the dependent variable. The results show a significant positive relationship between the use of ICT in selection and recruitment, training and development, Human resource planning, evaluation and compensation and human resource management efficiency. This highlights the use of ICT as an efficient tool in Human resource management of enterprises. The use of ICT assures Human resource management efficiency, we therefore suggest that regular Information and Communication Technology training and development should be enhanced so as to allow proper interactions between Human Resource Management and the different departments which could lead to the organizational efficiency.

Dapper, et al., (2017) examined technological change and manpower training In Nigerian Public Organizations: A Study Of Selected Parastatals In Rivers State. The study followed the descriptive survey design, using a five point Likert scale questionnaire to generate data. Purposive sampling was used to select 80 respondents from a population of 141 middle level manpower, from five selected state Parastatals in Rivers-state. The data gathered was analysed using the t-test with the aid of statistical package for social sciences (SPSS) 20.0 version. With 0.001, 0.002 and 0.000 as the result obtained from the three hypotheses in this study, it points to the fact technological change is breeding a paradigm in manpower training process especially as it affects process effectiveness, efficiency and post-training performance of the trainees. It was therefore concluding that for public sector manpower to maximize training opportunities in this dynamic technological age; there is need to acquire both rudimentary knowledge and skill in ICT. Again, to bridge post-training performance gap, trainings should be designed to align with the technology workers are expected to use in performing their task. This creates familiarity and expertise in the worker, thereby making knowledge transfer from training to actual work situation less herculean.

Mir, et al., (2016) explored the impact of knowledge management (KM) on human resource (HR) performance in management of Keshavarzi bank branches in Tehran. It also considers prioritization of various elements of HR performance and proposes suggestions for improvement of performance through utilization of KM components. For purposes of this study, a questionnaire, including 21 questions, was implemented. First, reliability analysis was conducted to identify and eliminate irrelevant variables. The researchers also used Kolmogorov-Smirnov test to consider the normality of variables' distribution. Friedman rank order test was also performed on employee performance components. Finally, to analyse the impact of KM on employee performance and its components, one-sample t-tests were performed. In light of the results, KM significantly influenced HR performance as well as all performance components, except for environment. Directions for further research are also proposed.

Mohammad, Bahman., (2017) investigated the effect of Knowledge Management on Human Resource Strategy (case study: Nasim Shahr Municipality). This research is descriptive – co relational research. Statistical population of this study is employees of Nasim Shahr Municipality in 2017 that the population is 103 people. Total population were selected as sample because of small size of population. In order to collect data, Sheron and Lawson (2003) knowledge management questionnaire has been used which consisted of 24 questions and human resource questionnaire which had 27 indicators. In order to analyse data, SPSS software and Pearson correlation test and regression have been used to test hypothesis. The results showed that there is significant relationship between knowledge management and strategies of human resources.

Onoriode, (2014), investigates manpower development and availability of financial resources in Nigerian monotechnic education. Monotechnics are single-subject institutions of higher learning that offer specialized programmes. A quantitative research design located within the positivist paradigm was adopted. A sample of 200 students and 80 members of staff was randomly selected from two public and two private monotechnics. A structured questionnaire was used and Chi-square and Pearson product moment correlation statistics were used to analyse the resulting data. The findings indicate that manpower development, in terms of the skills and competency of prospective graduates is affected by the funding made available to these institutions. It was further found that the financial resources provided or otherwise available in monotechnics (whether privately or publicly owned) are inadequate. Recommendations are made based on the findings.

3.0 METHODS AND MATERIAL

3.1 Research Design

The study adopted descriptive survey design so as to get accurate and detailed information to find out the major characteristics of variables associated with the research topic; Challenges and Prospect of Manpower development in the maritime industry.

3.2 Population of the Study

The population of this study comprised staff of Nigeria Maritime Administration and Safety agency (NIMASA), Apapa, Lagos State. The population of the study is estimated at 1000.

3.3 Sample Size Determination

This study used a mathematical approach in the determination of the sample size for the research. The mathematical sampling approach was based on Taro Yamani, (1973)

, 2003) formula that was sated below as follows:

$$\text{Therefore, } n = \frac{N}{1 + N(a)^2}$$

Where, n = required sample size

N = margin of error

e = margin of error

l = constant

Using a confidence level of 95% and a total population of 1000 . The sample size was calculated as follows:

$$\begin{aligned} n &= \frac{N}{1 + N()^2} \\ n &= \frac{1000}{1 + 1000 (0.05)^2} \\ n &= \frac{1000}{1 + 1000 (0.0025)} \\ n &= 250 \end{aligned}$$

Sample size = 250 staff.

3.4 Sampling Technique

The sampling was conducted using purposive sampling method. Convenience sampling method was used in selecting respondents, who were willing, knowledgeable, and available to respond on the subject matter.

3.5. Sources of Data

3.5.1 Primary Data

Primary data contains the data originally assembled by the person who actually observed the phenomenon. In the study the primary data used was questionnaire.

3.5.2 Secondary Data

The secondary data used for this study were collected through a wide range of written materials such as textbooks, various journals like Journal of maritime. This study has also referred to various websites that have previous research studies and empirical investigations.

3.6 Data Collection Techniques

The instrument used for this study was structured questionnaire used in previous relevant studies. The questionnaire was modified by rewording some of the contents to suit the purpose of

this study. The choice of the questionnaire was influenced primarily by the nature of the information required and secondarily by the value of the information. One of the instrument (questionnaire) was developed by the researcher and adopted for the study. It was structured segmented into main parts (A and B), part “A” measured the demography of the respondents, while part “B” contained data on the four research questions. The response format followed a five (5) points Likert Scale ranging from strongly agree (5) to strongly disagree (1).

4.0 Data and Analysis

Descriptive and inferential statistics were used in this study. Descriptive statistics was used to analyse the descriptive questions, while Pearson product moment correlation was used to test the hypotheses. The essence of using Pearson product moment correlation was to establish the relationship between two variables (independent and dependent variables), with the aid of Statistical Package for Social Science (SPSS) version 20.0.

4.1 Presentation and Analyses

Table 4.1: Respondents’ Profile

	Frequency	Percentage
Sex: Male	90	58.4
Female	64	41.6
Marital Status:	84	55
Married	50	33
Single	20	13
Divorced		

Source; Field Work, (2020)

From table 4.1, it could be observed that 90(58.4%) of the respondents were males, while 64(41.6%) were females. Therefore, majority of the respondents were males. It can also be seen from the table above that 84(55%) respondents were married, 50 (33%) were single while 20 (13. %) were divorced.

Descriptive Statistics of Study Variables.

Table 4.2. Effects of Inadequate Funding on Manpower Development.

Item	Descriptions	SA %	A %	U %	D %	SD	Total %
1	Inadequate funding impedes manpower development.	60 (39%)	40 (26%)	14 (9.1%)	25 (16.2%)	15 (10%)	154 (100%)
2	Misappropriation of fund impede manpower development.	54 (35.1%)	45 (29.2%)	20 (13%)	15 (10%)	20 (13%)	154 (100%)
3	Inaccessibility of fund impede manpower development.	58 (38%)	38 (12%)	18 (12%)	30 (14.4%)	10 (7%)	154 (100%)

	Average	57 (37.2%)	44.3 (29%).	34 (22%)	23.3 (15.2%)	15 (10%)	154 (100%)
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Source: Field Work, (2020)

SA-Strongly Agreed. A- Agreed. U-Undecided, D-Decided, SD-Strongly Disagreed

From table 4.2, analysis indicated that on the average 57(37.2 %) of the respondents affirmed strongly agreed that inadequate funding impede manpower development, 44.3 (29%) of the respondents affirmed agreed 34(22%). 23(15%) and 15(10%) of the respondents disagreed respectively. This shows that there is a significant positive relationship between inadequate funding and manpower development as 101(66.2%) of the respondents affirmed either strongly agreed or agreed, while 38(25.3%) of the respondents affirmed either strongly agreed or strongly disagreed.

4.2.1 Restatement of Hypothesis One

H₀: There is no significant positive relationship between inadequate funding and manpower development.

H₁: There is a significant positive relationship between inadequate funding and manpower development.

Table 4.3. Test of Relationship Between Inadequate Funding and Manpower Development.

		Sales Promotion	Sales Volume
Inadequate Funding.	Pearson Correlation Sig (2tailed) N	1 154	-1.000 .001 154
Manpower Development.	Pearson Correlation Sig. (2-tailed) N	1.000 .001 154	 154

Source: Researcher's Field Work, (2020)

The analysis of the data revealed that the result is significant ($r_{(154)} = 1.000$; $P < .05$). From the above, Since $P < .05$, we therefore infer that the test hypothesis which states that there is no positive relationship between inadequate funding and manpower development is rejected. Therefore, there is a positive relationship between inadequate funding and manpower development in the maritime industry;

Ques	Descriptions	SA %	A %	U %	D %	SD	Total %
4	Knowledge creation impedes manpower development.	64 (42%)	40 (26%)	15 (10%)	15 (10%)	20 (13%)	154 (100%)

5	Knowledge sharing impedes manpower development.	56 (36%)	44 (29%)	20 (13%)	15 (10%)	15 (10%)	154 (100%)
6	Knowledge acquisitions impede manpower development.	60 (39%)	40 (26%)	20 (13%)	15 (10%)	19 (12.3%).	154 (100%)
7	Knowledge storage impedes manpower development.	58 (38%)	38 (25%)	18 (12%)	38 (19.4%).	10 (7%).	154 (100%)
	Average	60 (39%)	43 (28%)	18.3 (12%)	20.7 (14%)	16 (10.4%)	154 (100%)

Source; Field Work, (2020).

The analysis on table 4.2, above showed that on the average 60(39%) of the respondents affirmed strongly agreed that knowledge based challenge impedes manpower development, 43 (28%) of the respondents affirmed agreed, 18 .3(12%) of the respondents affirmed undecided, 20(14.%) of the respondents affirmed disagreed, while 16 (10.4.%) respondents affirmed strongly disagreed. This shows that knowledge based challenge impedes manpower development as 103. (67%) either strongly agreed or agreed to the above assertion, while 36 (24.4%) of Nigeria Maritime Administration and Safety Agency (NIMASA) members either disagreed or strongly disagreed.

4.2.2 Restatement of Hypothesis Two

H₀: There is no positive relationship between knowledge based challenge and manpower development in the maritime industry.

H₁: There is a positive relationship between knowledge based challenge and manpower development in the maritime industry.

Table 4.4. Test of Relationship between knowledge Based Challenge and Manpower Development.

	Knowledge.	Manpower Development.
Knowledge.	1	-1.000
Pearson Correlation		
Sig. (2tailed)		.000
N	154	154
Manpower Development.	1.000**	1
.Pearson Correlation		
Sig. (2-tailed)	.000	
	154	

N		
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Source: Researcher's Field Work, 2020.

The analysis of the data on table 4.4 revealed that the result is significant ($r_{(154)} = 1.000$; $P < .05$). From the above, Since $P < .05$, we therefore infer that the test hypothesis which states that there is no positive relationship between knowledge and manpower development is rejected. There is a positive relationship between knowledge and manpower development in the maritime industry.

Table 4.5 Effects of Technological Change on Manpower Development.

Ques	Descriptions	SA %	A %	U %	D %	SD	Total %
8	Using technology would improve my performance....	60 (39%)	40 (26%)	14 (9.1%)	25 (16.2%)	15 (10%)	154 (100%)
9	i often use technology in the workplace.	54 35%	45 29.2%	20 13%	15 10%	20 13%	154 (100%)
10	Attitude towards technology adoption influence the actual use.	58 38%	38 25%	18 12%	30 19.4%	10 7%	154 (100%)
11	i am not comfortable using technology.	40 26%	60 39%	15 10%	14 9%	25 16.2%	154 (100%)
	Average	53 34.4%.	50 33%.	17 11%	21 14%	18 11.4%	154 100%

Source; Field Work, (2020).

The analysis on table above on 4.5 showed that on the average 53(34%) of the respondents affirmed strongly agreed that technological change impedes manpower development, 50(33%) of the respondents affirmed agreed, 17(11%) of the respondents affirmed undecided, 21(14%) of the respondents affirmed disagreed, while 18 (11.4%) respondents affirmed strongly disagreed. This shows that technological change impedes manpower development as 103 (67.4%) respondents either strongly agreed or agreed to the above assertion, while 39 (25.4%) respondents either disagreed or strongly disagreed.

4.2.3 Restatement of Hypothesis Three

H₀: There is no significant positive relationship between technological change and manpower development in the maritime industry of Nigeria.

H₁: There is a significant positive relationship between technological change and manpower development in the maritime industry of Nigeria.

Table 4.6 Test of Relationship Between Technological Change and Manpower Development.

	Technological Change..	Manpower Development.
Technological Change. Pearson	1	.890
Correlation		.000
Sig. (2tailed)	154	154
N		
Manpower Development. Pearson	.890	1
Correlation.		
Sig. (2-tailed)	.000	
N	154	154

Source: Researcher's Field Work, (2020).

The analysis of the data on table 4.6, revealed that the result is significant at ($r_{(154)} = 1.000$; $P < .05$). The test of hypothesis which states that there is no significant positive relationship between technological change and manpower development is rejected. Therefore, the alternate hypothesis which states that there is a significant positive relationship between technological change and manpower development is accepted.

4.3 Discussion of Findings

The discussion of the findings of this study focused on the three objectives of the study.

- i. To ascertain whether inadequate funding impedes manpower development in the Nigeria maritime industry. This is the first hypothesis tested. It showed that inadequate funding impedes manpower development. This result is in tandem with previous related study by (Onoriode, 2014) on manpower development and availability of financial resources in Nigerian monotechnic education. The findings indicate that manpower development, in terms of the skills and competency of prospective graduates is affected by the funding made available to these institutions. It was further found that the financial resources provided or otherwise available in monotechnics (whether privately or publicly owned) are inadequate.
- ii. To ascertain whether knowledge based challenge impedes manpower development in the Nigeria maritime industry. This is the second hypothesis tested. It showed that knowledge based challenge impedes manpower development. This result is compatible with previous studies by Dapper, et al., (2017) on the impact of knowledge management (KM) on human resource (HR) performance in management of Keshavarzi bank branches in Tehran. In light of the results, KM significantly influenced HR performance as well as all performance components, except for environment. In addition, Mirzaei, saeidianrand., (2017) on the effect of Knowledge Management on Human Resource Strategy (case study: Nasim Shahr Municipality). The results showed that there is significant relationship between knowledge management and strategies of human resources.

- iii. To ascertain whether technological change impedes manpower development in the Nigeria maritime industry. This is the third hypothesis tested. It showed that technological change impedes manpower development in the Nigeria maritime industry. this result is in tandem with previous studies by Serge, et al., (2017) on the impact of Information and Communication Technology on the efficiency of Human Resource Management in the Cameroon mobile Telecommunication Sector. The results show a significant positive relationship between the use of ICT in selection and recruitment, training and development, Human resource planning, evaluation and compensation and human resource management efficiency. Furthermore, Dapper, et al., (2017) on technological change and manpower training In Nigerian Public Organizations: A Study Of Selected Parastatals In Rivers State. With 0.001, 0.002 and 0.000 as the result obtained from the three hypotheses in this study, it points to the fact that technological change is breeding a paradigm in manpower training process especially as it affects process effectiveness, efficiency and post-training performance of the trainees.

5.0 Summary, Conclusion and Recommendations

5.1 Summary of Findings

The analysis of the data revealed that the result is significant ($r_{(154)} = 1.000$; $P < .05$). From the above, Since $P < .05$, we therefore infer that the test hypothesis which states that there is no positive relationship between inadequate funding and manpower development is rejected. Therefore, there is a positive relationship between inadequate funding and manpower development in the maritime industry of Nigeria.

- The analysis of the data revealed that the result is significant ($r_{(154)} = 1.000$; $P < .05$). From the above, Since $P < .05$, we therefore infer that the test hypothesis which states that there is no positive relationship between knowledge based challenge and manpower development is rejected. Therefore, there is a positive relationship between knowledge based challenge and manpower development in the maritime industry of Nigeria.
- The analysis of the data revealed that the result is significant at ($r_{(154)} = 1.000$; $P < .05$). The test of hypothesis which states that there is no significant positive relationship between technological change and manpower development is rejected. Therefore, the alternate hypothesis which states that there is a significant positive relationship between technological change and manpower development is accepted.

5.2. Conclusion

The findings in this study have brought a number of issues with regards to the challenges and prospects of manpower development. First and foremost, it was established that there is a significant positive relationship between inadequate funding, knowledge based challenges, and technological change and manpower development in the Nigeria maritime industry. It was concluded that the varying strength of the challenges of manpower development employed in this study, should be given attention according to their predictive ability on manpower development.

5.3 Recommendations

Based on the findings of the research, the following recommendations were made to Nigeria Maritime Administration and Safety Agency (NIMASA).

- i. Adequate fund should be made available by government and the management of Nigeria Maritime Administration and Safety Agency (NIMASA) as at when due. This to a large extent will make them develop skills and confidence in the exercise of duties. This can be achieved by putting appropriate measures to prosecute corrupt officials and leaders who sometimes misuse funds reserved for manpower training. The management of maritime administration and safety agency should ensure that its employees are communicated and educated on the relevance of manpower training. Matters related to employee training should be discussed frequently during the general staff meetings. This will boost the awareness level of staff training issues. The maritime administration and safety agency will benefit from this because training employees will minimize wastage which will result to cost reduction. Furthermore, The Federal Government should make funds available for the purchase of a full mission simulator for STCW compliant training of cadets and other seafarers.
- ii. It was recommended amongst others that the Nigerian maritime industry and other allied organizations should as a matter of necessity set up a Knowledge management unit for appropriate articulation and utilization of the knowledge assets. It is also recommended that the Nigerian maritime industry should incorporate knowledge management strategies into their overall business strategies.
- iii. The study suggests that regular Information and communication technology training and development should be enhanced so as to allow proper interactions between human resource management and the different departments in the Nigeria maritime industry which could lead to the organizational efficiency. There is need to acquire both rudimentary knowledge and skill in ICT. Again, to bridge post-training performance gap, trainings should be designed to align with the technology workers are expected to use in performing their task. This creates familiarity and expertise in the worker, thereby making knowledge transfer from training to actual work situation less Herculean.

REFERENCES.

- Aderibige, D. (2011). *EFCC arrests NIMASA boss Over alleged financial impropriety*. Lagos: Nigerian Tribune.
- Airahuabhor, A. (2020). *Controversy trails Federal Governemnt Plan to Estarblish new Maritime Training Institutions*. Lagos: Daily Independent.
- Alameri, M. (2013). *Assessing Resistance to Technological Change for Improved Job Performance in the UAE (Public Sector)*.
- Almeida, H. P. (2014). Social Human Capital and Innovation: An Exploratory Study of European Atlantic Organisations. . *Advances in Social Sciences Research Journal*, 87-103.
- Almendarez, L. (2013). Human Capital Theory: Implication for Educational Development in Belize and Caribbean. *Journal of Carribean Culture*, 21-33.
- Amjadi, A. R. (1996). Did External Barriers casue the Marginalization of Sub-Saharan Africa in World Trade. *World Bank Publication*. ISBN 0-8213- 3826-9, 63-348. .

- Anyanwu, S. O. (2015). Human Capital Development and Economic growth in Nigeria. *Journal of Economic and Sustainable Development* , 16-26.
- Armstrong, M. (2004). *A Handbook of Human Resources Management Practice, 9th Edition*. London : Konga Page Ltd.
- Banjoko, S. A. (2011). *Human Resources Management: Expository Approach*. Ibadan: Oluseyi Press Limited.
- Bourdreau, A. C. (1999). Systems Integration and Knowledge Management. *Journal of Information System Management* , 24-32.
- Casio, W. F. (2005). *Managing Human Resources*. London : McGraw-Hill.
- Dahlman, C. (2007). Technology, Globalization and International Competitiveness: Challenges for Developing Countries. *Journal of Information Technology*, 29-35.
- Dapper, E. M.-D. (2017). Technological Change and Manpower Training in Nigeria Public Organizations. *Journal of Business Management* , 35-65.
- Dialoke, I. U. (2016). Implications of Training and Manpower Development on Employee Productivity in Alvan Ikoku Federal College of Education, Owerri. *International Journal of Economics and Business Management* , 30-39.
- Dobson, W. &. (2013). *Human capital formation and growth: microeconomic dimensions*. London and New York: Routledge.
- Hamlin, A. C. (2004). *Evaluation and Control of Training*. Auckland: McGraw Hill.
- Hussaini, J. O. (2019). Assessment of National Policies on Capacity Building: Case Study of Nigerian Seafarers Development Programme. *World Maritime University Journal*.
- Ikokide, Z. O. (2000). Shipping Management and Policy in Nigeria, Essays in Honour of Babatunde Sarum. . *Freight and Shipping Journal*, DAAB Investment Limited.
- Kamath, V. R. (2011). The Role of Top Management in Using Knowledge Management as a tool for Innovative System Dynamics Perspective. *Journal on Engineering* .
- khan, A. (2012). Development of human Capital, Human Capital Formation, Its factors, Importance and Problems. *Journal of Economics and Education* .
- Kreitner, R. K. (2010). *Organizational Behaviour* . Irwin: McGraw- Hill.
- Kum, F. D. (2014). The Impact of Training and Development on Employee Performance: A case Study of ESCON Consulting. *Singaporean Journal of Business Economics and Management Studies*, 85-105.
- Ladan, M. (2014). Emerging Challenges in Manpower Training and Development in the Nigerian Civil Service. *Multidisciplinary Journal of Research Development*, 1-5.

- Mark, B. (1976). The Empirical Status of Human Capital Theory: A Slightly Jaundiced Survey. *Journal of Economic Literature*, 827-855
- Mir, H. R. (2016). An Investigation of the Impact of Knowledge Management on Human Resource Performance in Mangement of Keshavarzi Bank Branches in Tehran. *Journal on Social and Behavioural Sciences*, 471-490.
- Mirzaei, M. S. (2017). Investigating the Effect of Knowledge Management on Human Resource Strategy: Case Study of Nasim Shahr Municipality. *Journal of Managment Sciences* , 2267-2273.
- Mohammad, M. B. (2017). Investigating the Effect of Knowledge Management on Human Resource Strategy: Case Study Nasim Shahr Municipality. *Revista QUID* , 2267-2273.
- Monavvarian, A. K. (2007). A KM Model for Public Admonistartion: the case of Labour Ministry. *Journal of Information and knowlege Management System* , 348-367.
- Ndibe, O. B. (2014). Effect of Employees Training on Organizational Performance in Soft Drinks Bottling Companies in Enugu . *Journal on Social Sciences* .
- Ndikom, O. B. (2004). *The Essentials of Port Reforms: The Nigeria Experience*. Lagos: Bumico Publishers .
- Okeudo, N. G. (2012). Relationship Between Human Resources Effects and Productivity in Nigerian Transport Industry. *British Journal of Social Science*, 67-78.
- Omole, M. (2004). Training and Retraining a Variable of Technology Development. *Journal of Industrial Education*, 14-28.
- Onoriode, C. P. (2014). Evaluation of Availability of Financial Resources and Manpower Development in Selected Monotechnics in Nigeria. *Sage Journal* , 361-370.
- Purba, J. T. (2015). Strategy Optimizing Marine Industry through Sustainable Human Capital Development: Indonesia Perspective. *Mediterranean Journal of Socisl Sciences* , 129-135.
- Serge, M. P. (2017). The Impact of Information and Communication Technology on Efficiency of Human Resources in Cameroonian Enterprises: Case Study of Mobile Telephone Industry. *Journal of Global Entrepreneurship Research* , 85-98.
- Simkovic, M. (2013). *Risk-Based Students Loans*. Washington : Lee Law.
- Singh, R. M. (2012). Impact of Tarining Practices on Employee Productivity: A Case Comparative Study. *Interscience Management Review*, 87-92.
- Trainor, K. J. (2011). Integrating Information Technology and and Marketing: An Examination of the Drivers and Outcomes of e-Marketing Capability. . *Industrial marketing Management*, 162-174.

APPENDIX II

SECTION A

Instruction: Some of the questions contains response alternative. You are expected to choose any response of your choice

Personal Data

1. What is your gender?

(a) Male	[]
(b) Female	[]
2. What is your marital status?

(a) Married	[]
(b) Single	[]
(c) Divorced/Separated	[]
3. What is your age?

(a) 18-30yrs	[]
(b) 31-45yrs	[]
(c) 46yrs – above	[]
4. What is your educational qualification?

(a) WAEC/GCE	[]
(b) OND/NCE	[]
(c) HND/B.Sc	[]
(d) MBA, MSC, PHD	[]
5. Category of staff

(a) Management	[]
(b) Senior	[]
(c) Contract	[]
(d) Others (specify)	[]
6. Work experience

(a) 1-6 year	[]
(b) 7-12	[]
(c) 13-18	[]
(d) 19-25	[]

SECTION B

Section B: Knowledge Management Practices by Selected Manufacturing Firms in Enugu State, Nigeria.

Please read each of the statements carefully and circle one number. To what extent do you “Agree” or “Disagree” with each of the following statements.

- | | | |
|-------------------|---|--------|
| Strongly Agree- | - | SA = 5 |
| Agree | – | A = 4 |
| Undecided | – | U = 3 |
| Strongly disagree | – | SD = 2 |
| Disagree | – | D = 1 |

Knowledge Based Challenge and Manpower Development.

	Statements	A	SA	D	SD	U
1	Knowledge creation impedes manpower development. .					
2	Knowledge sharing impedes manpower development.					
3	Knowledge acquisitions impede manpower development.					
4	Knowledge storage impedes manpower development.					

Effects of Inadequate Funding on Manpower Development.

Ques	Descriptions	SA %	A %	U %	D %	SD	Total %
1	inadequate funding impede manpower development.						
2	Misappropriation of fund impedes manpower development.						
3	Inaccessibility of fund impede manpower development.						

Effects of Technological Change on Manpower Development

Ques	Descriptions	SA %	A %	U %	D %	SD	Total %
8	Using technology would improve my performance....						
9	i often use technology in the workplace.						
10	Attitude towards technology adoption influence the actual use. .						