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The Impact of Manpower Development on Organizational Efficiency in National Inland Waterways Authority of Nigeria (NIWA)

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Abstract

The manpower deficiency in NIWA, an organization that requires the competence not only to run a profitable transport outfit but also regulate the activities of private operators using the Nigeria Inland Waterways, has been a source of concern to the government over the years more so that the organization is supposed to be a 'cash cow' to the Federal Government. This study focussed on the skill-gaps and how they impact on efficiency and specifically interrogated the relationship between staff development and job performance in NIWA. Survey method was used. Primary and secondary data were collected through questionnaire. Three hypotheses were formulated to guide the study. Chi Square and Pearson Product Moment Correlation Coefficient statistics were used in data analyses. Among the findings were significant relationship between skill-gaps and inefficiency and poor productivity among NIWA staff; and poor correlation between resources committed to staff development and staff productivity. Among the recommendations is that there should be mechanism for proper assessment of employee performance after training and such performance should be tied to their subsequent promotion on the job.

Key Words: Manpower development, skill-gaps, human resources, performance, efficiency

Introduction

Manpower is the basis of all resources and it is the indispensible means of converting other resources to man kind's use and benefits. So, how well we develop and employ human resources skills is fundamental in deciding how much we will accomplish as a nation. Manpower is the pivot of every human institution. Even in the developed and industrial nations of the world where the use of machines and technology is at an advanced stage, manpower is still very essential (Comma, 2008). Training therefore holds to unlock the key to potential growth and development opportunity to achieve a competitive edge. In this context, organizations train and develop their employees to the fullest advantage in order to enhance their effectiveness (Devi & Shaik, 2012).

The importance of training as a central role of management has long been recognized by leading writers (Berman et al 2013). Training both physically, socially, intellectually and mentally are very essential in facilitating not only the level of productivity but also the development of personnel in an organization. To manage an organization both large and small required staffing with competent personnel. The formal educational system does not adequately teach specific job skill for a position in a particular organization. Few employees have the requisite skill, knowledge, ability and competencies (SKAC) needed to work. As a result, many required extensive training to acquire the necessary SKAC to be able to make substantive contribution towards the organization's growth (Igbinosun, 2002). In order to sustain economic growth and effective performance, it is important to optimize the contribution of employees to the aims and goals of organizations.

In a developing country like Nigeria, training and development of manpower resources is highly needed in virtually all business organizations for effectiveness (Ezeani & Oladele, 2013). Deficiencies in knowledge, skill and ability among public sector personnel, particularly those of Asia, Africa, and Latin America, are remarkable (Bahal, Swanson, & Earner, 1992). Training is necessary to ensure an adequate supply of staff that is technically and socially competent and capable of career development into specialist departments and management positions. There is therefore a continual need for the process of staff development, and training fulfils an important part of this process. Training should be viewed therefore as an integral part of the process to total quality management. Beardwell and Holden (1993) argued that the recognition of the importance of training in recent years has been heavily influenced by the intensification of competing and the relative success of the organizations where investment in employee development is considerable emphasized.

The National Inland Waterways Authority (NIWA)

The National Inland Waterways Authority (NIWA), hitherto Inland Waterways Department (IWD) of the Federal Ministry of Transport, metamorphosed into an Authority vides an Act of the National Assembly, CAP 47, and Laws of the Federation of Nigeria of (LFN) 2004. (Decree of No. 13 of 1997), established with the primary responsibility to improve and develop Nigeria's inland waterways for navigation.

Statement of the Problem

Despite various government interventions and effort, the Nigeria public sector score-card (National Inland Waterways Authorities inclusive) is a sorry case of poor performance and inefficiency. It is important to note that the talent requirements of the public sectors are particularly acute (Adeoti, 2009), and the need for the urgent training and manpower

development in Nigeria's workforce in bringing the Nigeria public service to an enviable height has been stressed in many studies (Bal 2010, Yusuf, 2003) because if personnel that are expected to execute policies of the government and manage public affairs are not well trained and knowledgeable, there would definitely be a problem and under-productivity in the public, industrial and corporate sectors, with the manifest import that the achievement of the objectives for which they are employed will be a mirage.

The manpower deficiency and operational efficiency of NIWA has been discussed in several studies (Anyanwu, 2002) but no attempt has been made to correlate the impact of increased government spending on training and the intended goals of such efforts. The need for such studies to fill this gap becomes relevant considering the critical role NIWA plays in the Nigerian economy. The body controls the Nigerian inland waterways, and so is required to have the competence to run a profitable transport outfit, and also supposed to have the requisite competence to regulate, license and control private sector participants in the transport services using Nigerian inland waterways. So, it is understandable if the operations and organizational efficiency of the body has been a source of concern, as NIWA at a point almost became moribund. Some experts even proposed a complete privatization of their operations. Others identified skill-gap and other deficiencies to be the bane of NIWA (Obeta, 2014) and prescribed training and manpower development as panacea to the problems. The opinion of the latter was adopted by the government. Manpower development became the prescribed antidote to the problems of inefficiency of NIWA. This research is therefore geared at answering a number of questions: Do skill-gaps still exist in NIWA, and if they do, how do they impact on efficiency? What are the perceived benefits of training and development to organizational efficiency in NIWA? What is the relationship between staff training and employees' job performance in NIWA? What can be done further to make NIWA a "cash cow" public sector organization for the Nigerian government at various levels? These queries formed the focus of this study.

Research Aim and Objectives

The aim of the study is to assess the impact of manpower development on organizational efficiency of the National Inland Waterways Authority (NIWA). However, the objectives are to:

- 1. ascertain the incidence of skill gaps and its contributory effect to inefficiency of NIWA as a public sector organization.
- 2. to evaluate the benefit of training and development to organizational efficiency in National Inland Waterways
- 3. critically assess and correlate the cost of employees' training with impact on organizational efficiency at NIWA.
- 4. proffer further policy solutions to better manpower development in NIWA.

Research Hypotheses

The following research hypotheses will be tested in the study:

- **H**₀₁: There is no significant relationship between skill-gaps and efficiency level in National Inland Waterways Authority.
- **H**_{02:} There is no significant relationship between manpower development and organizational efficiency in NIWA.

 \mathbf{H}_{o3} : There is no significant relationship between cost of staff training and employees' job performance in NIWA.

Literature Review

Manpower development can be said to mean a system by which the management of an organization help each staff or individual of the organization to realize his or her potential, develop it and brings it to bear for the growth of the organization (Caldwell, 2004). It involves activities such as indoctrination and training programmes, which could be conducted at various points, systematically performed in physical

Manpower development is an area that has attracted the attention of so many writers; hence there are so many definitions as there are many writers. Manpower development is a favourable change in a person that permits him or her to function effectively. The ways the managers know that it has occurred is that the employee possesses new knowledge or information and he is able to apply old knowledge in a new way or has an increased interest in applying what he knows. It can also be seen as any attempt to improve current or future performance by imparting information, conditioning attitudes or increasing skills. It is a process that ranges from training employees in skill to assist them in broader areas of personnel and other social adjustments in the interest of the individual as well as the organization (Chruden, 1980, p. 80). Development represents the planned opportunity that is provided for training, educating, directing and performing the management function.

Development deals with the activities undertaken to expose an employee to perform additional duties and assume positions of importance in the organizational hierarchy (Nwachukwu, 1988). It is a function of management aimed at helping employees to acquired them and assume more complex responsibilities. It is a favourable change in a person that enables him to function more effectively (Adeoti, 2003). It means preparing an employee for the future, but well-defined job at a higher level.

Tokunbo (1970) observed that manpower development is the process by which an enterprise is made more effective, efficient and profitable. It can also be seen as a process of intellectual growth achieved through providing the means by which people could grow on their jobs. Manpower development emphasizes the opportunity to learn and grow by doing. Mamoria (1992) defined it as not only those activities which improve job performance but also those which bring about growth of the personnel, helping individuals in the progress towards maturity and actualization of their potential capacities so that they become not only good employees but better men and women. It is intended to equip persons to earn promotion and hold greater responsibility. It is the acquiring of skills; knowledge and the know-how that may enable the employee perform given tasks in another environment (Adeleke, 1983). In his own view, Humble (1975) asserted that development is concerned with the process of imparting knowledge, skill and attitude through instruction, demonstration, practice and experience to meet the present and future needs of these and other management intellectuals, that manpower training and development is a dynamic process designed to equip with the necessary knowledge and skills required to enable them adapt to the ever-changing environment.

Distinction between Training and Development

According to Mamoria (1992) training helps an individual to learn how to carry out satisfactorily the work required of him in his present job while development is preparing the individual for a future job. Others may not agree.

The major differences between training and development are: -

- 1. Training is a learning process for new employees in which they get to know about the key skills required for the job. Development is the training process for the existing employees for their all-round performance.
- 2. Training is short term process but development is a continuous process and so it is for long term, i.e., training refers only to philosophical and theoretical educational concept (Mamoria, 1992). Training courses are typically designed for short term stated set purpose, such as the operation of some pieces of machinery, while development involves a broader education for a long-term purpose.
- 3. Training involves the skill of an employee in any organization while development is a course of action designed to enable the individual to realize his potential for growth in the organization. It relates to the future rather than present jobs (Hackett 1979, p. 114).
- 4. Training focuses on developing skills and knowledge for the current job. Unlike the development which focuses on the building knowledge, understanding and competencies for overcoming future challenges.
- 5. Training has a limited scope, it is specific job oriented. On the other hand, development is carrier oriented and hence its scope is comparatively wider than training i.e. development gives the participants a wider awareness, an enlarged skill and enlightenment, altruistic philosophy and enhanced personal growth possible.

Methodology

The research design is survey. The sources of data were both primary and secondary. The primary data were collected through a structured questionnaire. Secondary data were gathered from books, academic journal publications including government publications. The population of study consist of the 533 staff of NIWA out of which a total sample of 251 was randomly drawn. The data gathered were analysed by descriptive statistics as well as the Chi Square through the Statistical Package for the Social Sciences (SPSS).

Analysis of Research questions and Hypotheses

The following are the research questions and their analysis:

Research question one: What are the perceptions of the employees on the relationship between skill gap and efficiency level in the National inland Waterways Authority?

This research question was introduced through the item in section D. "Skill gap leads to inefficiency in NIWA." The perceptions of the employees were distributed as follows: 16.7% of the respondents strongly agreed that skill gap leads to inefficiency, while 26.9% agreed and 21.4% were undecided; 25.2% disagreed and 9.8% strongly disagreed. Overall 43% of the respondents agreed that skill gap leads to inefficiency, 21% were undecided while 35% disagreed.

Research Hypothesis one:

 H_{01} : There is no significant relationship between skill-gaps and efficiency among the staff of NIWA

Table 1: Responses to "Skill gap leads to inefficiency in NIWA" in the questionnaire

Level	Frequency	
Strongly agree	41	
Agree	63	
Undecided	50	
Disagree	59	
Strongly Disagreed	21	

Source: Survey by the authors (2017)

Result of Hypothesis testing

Table 2: Chi square frequency table

Skill gap				
	Observed N	Expected N	Residual	
Strongly agree	41	46.8	-5.8	
Agree	64	46.8	17.2	
Undecided	51	46.8	4.2	
Disagree	59	46.8	12.2	
Strongly disagree	19	46.8	-27.8	
Total	234			

Source: Survey by the authors (2017)

Table 2.1: Test Statistics		
•	Skill gap	
Chi-Square	27.111 ^a	
Df	4	
Asymp. Sig.	.000	

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 46.8.

Table 2.2: Result of Hypothesis testing

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Skill_gap occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

SPSS

From the table above, the non-parametric testing indicates that the different responses by the staff on indicate that the relationship between skill gap and efficiency is significant at α = 0.0001, hence the null hypothesis is rejected.

Research question two: What are the perceptions of the staff of NIWA on the relationship between manpower development and organizational efficiency?

This research question is answered in item 1 of section D: "Manpower development enhances efficiency level in NIWA": 30.3% strongly agree that manpower development enhances efficiency at NIWA, 38.0% agree, 17.9% are undecided, while a small fraction 9.8% disagree and 3.8% strongly disagree. From the foregoing, a majority of the respondents (68%) agree that there is a positive relationship between manpower development and organizational efficiency.

Research Hypothesis two:

 H_{02} : There is no significant relationship between manpower development and organizational efficiency among the staff of NIWA

Based on the responses to the question "Manpower development enhances efficiency level in NIWA" by the respondents, the hypothesis is tested using the non-parametric chi-square test;

Table 3.1: Responses for "Manpower development enhances efficiency level in NIWA"

Level	Frequency
Strongly agree	71
Agree	89
Undecided	42
Disagree	23
Strongly Disagreed	9

Source: Survey by the authors (2017)

Results of Hypothesis testing

Table 3.2: Chi-square test frequency table

Manpower					
	Observed N	Expected N	Residual		
Strongly agree	71	46.8	24.2		
Agree	89	46.8	42.2		
Undecided	43	46.8	-3.8		
Disagree	22	46.8	-24.8		
Strongly disagree	9	46.8	-37.8		
Total	234				

Source: Survey by the authors (2017)

Table 3.3: Test Statistics		
	Manpower	
Chi-Square	94.547 ^a	
Df	4	
Asymp. Sig.	.000	

• 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 46.8.

Table 3.4: Result of Hypothesis testing in SPSS

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Manpower occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

From the table above, the non-parametric testing indicates that the responses by the staff on the relationship between manpower development and organizational efficiency in NIWA is significant at $\alpha = 0.0001$, hence the null hypothesis is rejected.

Research question three: *Is the existing level of organizational efficiency commensurate with the cost of employees' training and development?*

For this research question the revenue of NIWA per year/per head of staff from 2013 -2016 will be required as a measure of productivity, but unfortunately the annual auditor general and accountant general reports for these years, do not have these records. Moreover, the physical head count of staff of the federal ministry of transport and its agencies is a new project costed at N 1,964,800 in the 2016 appropriation bill yet to be executed (Auditor general report, 2016).

However, to overcome this shortcoming, giving that general figures are available for the ministry of transport of which NIWA is an agency, the Federal ministry of transport was used in analyzing the total amount spent on training and staff productivity. The shortfall in account balance from the ministry of transport was used in lieu of actual revenue, and in the absence of the number of staff which was not available, an estimated figure of 1,000 - 5,000 (An average value of 3500 was used) from www.businessindex.com.ng was used.

Table 4: Table of shortfall per head of ministry of transport staff and total amount spent on training.

Year	Shortfall	Shortfall/per head	Amount spent on training
2013	-N 29 608 485	-8459.57	N26,535 980
2014	-N 17 546 385	-5013.25	N 34 212 708
2015	- N 44 554 580	-12729.9	N 28 654 801
2016	- N27 542 038	-7869.15	N 33, 218 654

Source: Federal Ministry of Transport, 2017

From the table above, there does not seem be an observable pattern that shows that with increased government spending on training, that there is a concomitant reduction in shortfall. Hence, in answering the question: *Is the existing level of organizational efficiency commensurate with the cost on employees' training and development?* The response is 'no'. Organizational efficiency measured through staff productivity does not seem to be commensurate with training expenditure.

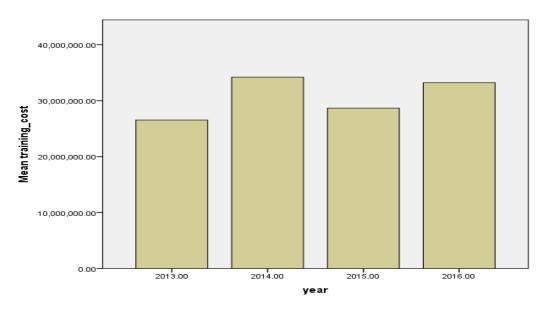


Figure 1: Mean training cost for the years 2013-2016

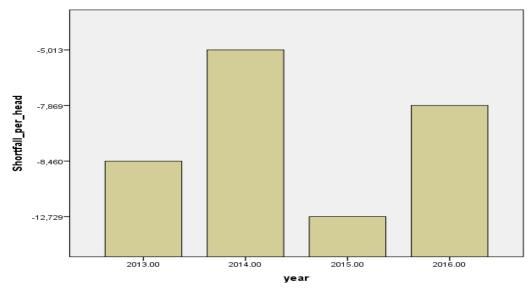


Figure 2: Shortfall per head for the years 2013-2016

Research hypothesis three: There is no significant relationship between cost of staff training and employees' job performance in NIWA.

From the bivariate analysis, the Pearson's correlation coefficient was 0.638 at a significance level of 0.362 (as shown in table 4.14). The interpretation of the results indicates that correlation between the two variables is poor (0.638 < 0.9) and the correlation or relationship between the variables is insignificant (0.362 > 0.05). Therefore, the null hypothesis is accepted, that there is no significant relationship between the amount spent on staff training and job performance.

Table 5: Correlation table for the relationship between shortfall per head and training cost.

		Shortfall per head	training cost
	Pearson Correlation	1	.638
Shortfall_per_head	Sig. (2-tailed)		.362
	N	4	4
	Pearson Correlation	.638	1
training_cost	Sig. (2-tailed)	.362	
	N	4	4

Discussion of Findings

The discussion of findings revolved around the set objectives in chapter 1. The findings in this study were compared to empirical findings made in other related studies; and where there are variances, efforts were made to reconcile them.

i) **Research Objective One:** Ascertain the incidence of skill gaps and the its contributory effect to inefficiency of NIWA as a public sector organization.

This question was formulated into research question one and hypothesis one. From the results, 43% admitted that skill gaps are present in NIWA, and that it leads to inefficiency, the null hypothesis: There is no significant relationship between skill-gaps and efficiency among the staff of NIWA, was tested, and based on the different responses by the staff, the negative effect of skill gap on efficiency was significant at α = 0.0001, hence the null hypothesis is rejected. This is in general agreement with studies by May and Tyler, (1996), Bolland, (2003) and Mittal, (2009), that skill gap in the workplace is a significant contributor to staff inefficiency and that it lessens productivity.

ii) **Research objective two:** To evaluate the benefit of training and development to organizational efficiency in National Inland Waterways

From the results, a majority of the respondents (68%) agree that there is a positive relationship between manpower development and organizational efficiency. the null hypothesis. There is no significant relationship between manpower development and organizational efficiency among the staff of NIWA, was tested with findings indicating that the responses by the staff on the relationship between manpower development and organizational efficiency in NIWA is significant at α = 0.0001, hence the null hypothesis is rejected. The respondents' views to a large extent synchronized with the assertion by Olaniyan and Ojo (2008) that manpower development affects the overall performance of the organization because the purpose is in line with organizational policy and vision. This is also in line with the assertion by Adamu (2008) that employee training is an effective corporate policy instrument that enhances productivity. This result also agrees with results of studies by Ndibe, (2014) in soft drinks companies in Enugu; Igwe (2011) in Anambra Motor Manufacturing Company Ltd (ANAMCO) Anambra state; and Comma, (2008) in Federal college of Education Zaria and Alfa (2011) in PHCN, Zaria.

iii) **Research objective three**: Critically assess and correlate the cost of employees' training with impact on organizational efficiency at NIWA

The shortfall in account balance from the Ministry of Transport was used in lieu of actual revenue. From financial analysis done, there was no observable pattern that linked government spending on training with increased revenue generation because there would have been a concomitant reduction in shortfall if it were not the case. Hence, it is surmised that the existing level of organizational efficiency at NIWA is not commensurate with the cost of employees' training and development. Also, bivariate analysis, indicated that correlation between the government expenditure on staff training and organizational productivity is poor, thus there was no basis for justifying the amount spent on staff training and manpower development.

This result should be taken with a caveat, *that approximate values were used*. However, this result also seems to contravene the general belief by the employees that manpower development boosts their job performance.

Policy Implication of Findings for Administrative Efficiency and Effectiveness at NIWA

The policy implications of these findings are as follow:

- 1. The training policy at NIWA should be reviewed so that it is compulsory that all staff undergo training at least for a minimum number of times within a specified time period, upon which promotion and allowances will be dependent. This will go a long way, in making staff to be conscious and aware of the training policy, and to see clear relationships between training and career advancement. It will also prevent a situation where about 30% of staff have not undergone any form of training, when 14% have attended two different categories of training.
- 2. Since the employees attributed inadequate manpower as a major source of skill gap, it is proposed that periodic evaluation of staff competence be conducted to ascertain the specific skill gaps that need to be filled so that training programmes be tailored to meet such needs and hence reduce inefficiency.

Recommendations

In the light of the findings and conclusion of the study the following recommendations were made:

- 1. Seminars and workshops should be organized for the Human Resource department on the importance of systematic approach of training and proper procedure to follow in identifying skill gaps in the various departments at NIWA.
- 2. A mechanism should be created for proper assessment and evaluation of employee performance after training, and such assessment should be tied to the subsequent promotion exercise of NIWA staff.
- 3. The training policy for NIWA and the federal ministry of transport should be reviewed to ensure also that adequate training design, rich in content is used for employee training. The content should be able to include identified skill gaps, while making sure that a trainer who is knowledgeable and experienced in that area is contracted for the training delivery.
- 4. More of Off-the-Job training programmes should be initiated. This could help in meeting up with some training needs that could arise as a result of technology change
- 5. Sensitization workshops for management staff, should be geared towards attitudinal change of management towards an orientation and view of staff training as a right of

every staff and not a privilege, i.e. it should be seen by management as a right of every staff that should be regular and continuous and not be sporadic. Training should be seen as one of the routine activities of the agency.

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