

Education and Organizational Performance of the Nigeria Arm Forces.

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Abstract

The study was on education and organisational performance of the Nigerian Armed Forces. The objective of the study was to establish the nexus between education and organisational performance of the Nigerian Armed Forces. The study adopted the descriptive survey design using quantitative approach in which data were collected through questionnaire from 60 respondents who were Naval Personnel. Six formations of the Nigerian Navy formed the population of this study. Data collected were analysed using Statistical Package for Social Science Version 23.0, spearman Rank order coefficient tools were used for testing the hypothesis. The finding of the study was that education lead to operational efficiency of the Nigerian Armed Forces. The study recommends among others that the Nigerian Armed Forces should institute a policy specifically on military education.

Keywords: *Military, Education, Organizational Performance, Nigerian Armed Forces*

Introduction

The importance of man in any organisation cannot be over-emphasised. All organisations are purposeful entities with set out goals and objectives which is achievable by man (human resource). The human resource of an organisation according to Eze (2010) is the activator, energizer or catalyzes that transform all other organisational resources into the objectives for which the entities whether public or private was ab-initio set up. There is the need for organisation to have human resource with high level of knowledge, skills and abilities. Human resource according to Okenqwu (2020) is the beginning of the process toward human capital. All valuable human abilities or attributes which could be augmented or enhanced by appropriate investments such as training and development constitute human capital (Eze, 2010). Human capital is an intangible asset, best thought of as a stock of embodied and disembodied knowledge in man, comprising education, information, health, entrepreneurship, and productive and innovation skills, that is formed through investments in schooling, job training and health, as well as through Research and Development (R&D), projects and formal knowledge transfers. (Ehrlich and Murphy, 2007). It is the human capital that human capital development seeks to create an atmosphere for the realisation of its full potential by advancing the impetus. Education is a very important aspect of human capital development.

According to Brumbach (1998) performance means both behaviours and results. Behaviours are emanating from the performer and turn the performance of an abstract concept into a concrete action. Not just being tools of obtaining some results, behaviours are by themselves outcome-the products of physical and cerebral exercise submitted for the execution of tasks and could be judged apart from results, thereby linking performance to behaviours and outcomes. For Whooley (1996), performance is not an objective reality waiting somewhere to be measured and assessed, but a socially constructed reality that exists in people's minds, if it exists somewhere. The defence sector is made up of organisations that are responsible for the protection and preservation of the sovereignty of the State or Nations. Defence according to Mbachu and Sokoto (2016) is the making of strategic plans to ward off enemy attack or prevent aggression. It can also refer to military measures and manoeuvres for protecting a State, its core values and national interests from internal and external threats. National defence according to Obasanjo (2010) is generally concerned with the Armed Forces capability to deter aggression by land, sea and air, and promotion of internal security in order to enhance the achievement of National objectives. In Nigeria, the National Defence is placed on a tripod organisations comprising of the Nigerian Army, Nigerian Navy and the Nigerian Airforce (1999 Constitution of the Federal Republic of Nigeria as Amended). In other climes, it may include the National Guard, Marines and the Coast Guard for example in the United State of America. Each of the services has interrelated statutory missions and requires synergy to optimize operation.

The Armed Forces of Nigeria (AFN) is a vital instrument of national power and the Nigerian Navy (NN) is a key component of that instrument. Nigeria being a maritime nation depends on the sea for most of its economic activities as most of Nigeria's revenue comes from shipping activities and the exploitation of resources at sea. The Nigerian Navy was used as the domain of this study. According to Ibas (2016), Nigeria has enormous investment and resources at sea that needs to be protected. More often, these resources are continuously undermined by myriads of asymmetric threats including piracy, sea robbery, crude oil theft, illegal

bunkering, hostage taking and vandalism of pipeline/oil infrastructure as well as human, narcotic and armed trafficking among several others (Ibas, 2016). Tackling these malfeasances requires knowledge, skill and expertise on the part of naval personnel to counter them. The organisational performance of the NN is determined in relation to the rationale for its existence (Adekeye ,2006). The fundamental rational for the existence of the NN is the capacity to conduct naval warfare and operation across the spectrum of operations either independently or in joint, combined, multi-agency and multi-lateral coalitions to protect the country’s strategic maritime and larger national interests (Ibas,2016). Some of the components in realizing organisational performance are in the attainment of operational efficiency, effective equipment maintenance and optimizing its logistics chain processes among others.

Consequently, the NN roles and assigned responsibilities underscore the necessity of developing a credible and adaptable naval force with a fleet capable of achieving higher strategic policy objectives. These include capabilities to undertake full spectrum missions in line with military policing and diplomatic functions which are generally accepted as the standardized roles of modern navies. These are all in line with the mission of the NN, which is “To deploy a naval force that is well trained, organised and highly motivated to discharge its constitutional roles professionally and efficiently for the defence of Nigeria in ensuring her economic prosperity” (Ezeoba, 2014). The requirement for education and necessity for organisational performance in the Nigerian Navy cannot be overemphasized. The Nigerian military that is currently confronting myriad of security challenges bedevilling the country and in preparation for future challenges in the era of rapid changing technology need to align its personnel with evolving solutions and cannot ignore the relevance of education. Personnel need to be awoken to the current realities and yet to evolve security scenarios. These involve the necessities to educationally update them to use available technology and those yet to be invented, which has not come to light in journals and technology updates but contemplated through educational researches.

The purpose of this study is to establish the nexus between education and organisational performance of the Nigerian Armed Forces in Nigeria with emphasis on Nigerian Navy.

The study was guided by the following research questions:

- i. What is the relationship between education and operational efficiency of the Nigerian Armed Forces?
- ii. What is the relationship between education and logistics optimization of the Nigerian Armed Forces?
- iii. What is the relationship between education and effective equipment maintenance of the Nigerian Armed Forces?

Conceptual Framework

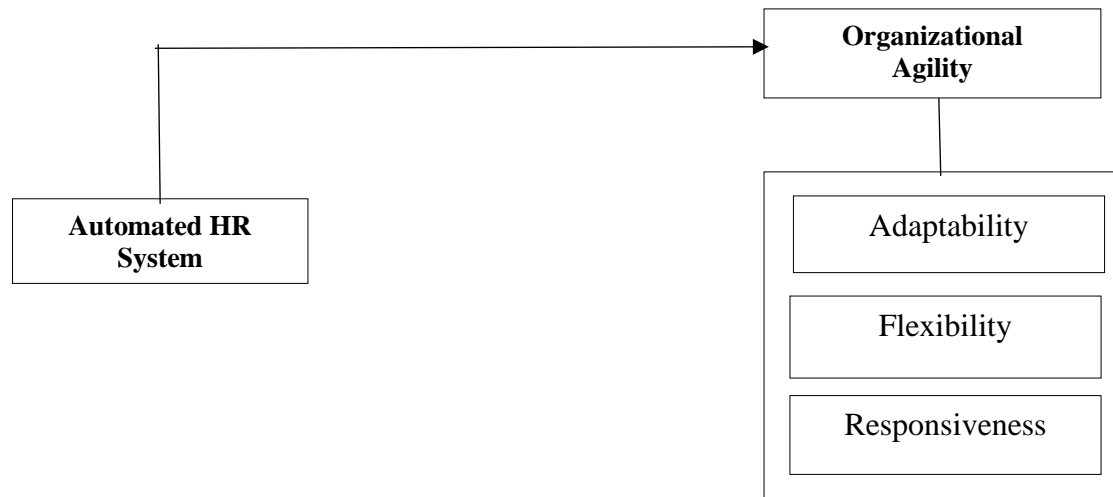


Fig.1 Conceptual framework of the relationship between education and organizational performance

Source: Education; Evans (2017) Organization Performance; Desk Research, 2021

Theoretical Foundation

The Human Capital Theory

Human capital theory, initially formulated by Becker (1964) and explained by Rosen (1975), argues that individual workers have a set of skills or abilities which they can improve or accumulate through training and education. Earlier in a research work without properly situating it, Schultz (1981) had recognized the human capital as one of the important factor of national economic growth in the modern economy. He argues that a person's formal education determines his or her earning power. Economist such as Elliot, Busse, and Gresham (1993) further took the theory of human capital to encompass growth and organisational performance. They were concerned with human capital in terms of the growth, not quantity of the labour supply. The assumption of this theory is based on the belief that education is an investment that could potentially bestow private and social benefits on individuals such as recognition and earnings. It is further assumed that education and earning power are correlated which means, theoretically, that the more education one has, the more one can earn and that the skills, knowledge and abilities that education provides can be transferred into the work in terms of organisational performance (Dae-bong, 2009 in Armstrong,2012). The theory focuses attention on resourcing, human resource development and, reward strategies and practices. The implications of the human capital theory include the need to impact knowledge and skills in employees to enable the organisation achieve a competitive advantage, a neglect of human capital development has negative impact on the organizational organisational performance.

Human capital theory related research has not reach a consensus on how to clearly measure returned to investment in education and training, it mainly focuses on the individual, used a non-classical framework and assumes that human capital could be calculated in the same way for every individual. There are disagreements among scholars about estimating the private rate of return on education from income differentials between persons differing in education (Becker, 1993), Most

critics argue that the true rate of return on education is grossly overestimated because persons differing in education also differ in many other characteristics that cause their incomes to differ systematically. The theory is also relevant to the study in that the Nigerian Navy's organisational performance is expected to be determined through human capital development, which requires funding by the Federal Government of Nigeria as an investment. When employees upgrade their skills, they maintain the mastery of their work which is likely to bear fruit in their organisational performance. Human capital development is a costly exercise, it is therefore important for organization to view it as an investment where by the improved employees' performance will positively impact the overall performance of the organization, and hence the organization reap from the investment. Similarly, training motivates the employees to put more efforts to achieve the organizations goals. The human capital theory drew attention on the resource based view, human allocation and development, and transaction cost economies theories in developing the human resources architecture of the organisation.

The Concept Military Education

Education is an engine of growth according to Almendarez (2011). Education according to Tamunomiebi and Zeb-Obipi (2017) is the process of acquiring background knowledge of a subject. It is person oriented - rather than job oriented. It is vital to organisational performance in any organisation based on its quality and quantity. In order to develop human resource to human capital, high quality education is required. Education helps in the development of knowledge, values and understanding required in all aspects of life. Human capital has to be trained, educated and developed within the system of an organisation for the purpose of enhancing organisational performance of the organisations through the expertise of its workforce (Zidan, 2001). Education according to Armstrong (2012) is the knowledge, values and understanding required in all aspects of life rather than the knowledge and skills relating to particular areas of activities. Military education is the conduct of education by the military organisations. Organisations need to have its workforce educated to grow. According to Quiggin (1999), the human capital model gives a clear picture that education endows individual with skills, as a tool of human capital development. Education is a tool that improves functional and analytical ability and thereby opens up opportunities for individuals and organisations to achieve greater access to labour markets, livelihoods and organisational performance. Education is not only an instrument of enhancing efficiency but is also an effective tool of widening and upgrading the overall quality of individual and societal life.

Military personnel undergo professional military education (PME) to keep themselves updated on emerging concerns on matters of national and international affair security and stability (Idris, 2015; Jalili & Annen, 2019; Policy and Legal Advocacy Centre, 2012). Military Education (ME) comprises military training instructions to provide personnel with the intellectual grounding and the cultivation of wisdom and judgment they require in responding to socially complex situations in the society (Jalili & Annen, 2019). Professional development for civilians who serve in the military is an important component of the structure of the Nigerian Navy (Idris, 2015; Jalili & Annen, 2019; Policy and Legal Advocacy Centre, 2012). Angelevski and Smileski (2013) argued that providing security in a rapidly changing and unpredictable world depends to a large extent on the military's morale, motivation, and specialized skills which are influenced by their academic background, professional education, and special military training. Nigerian military education is education for personnel of the Nigerian Army, Navy and Air-Force. The National Defence College is the apex training institution for personnel of the Nigerian Armed Forces, the Armed Forces Command and Staff College and the Nigerian Defence Academy (NDA), are the major institutions that provide education for the three arms of the military (Akpomuje, 2015). These levels of education for personnel provide the foundation for organisational performance in the military. Nigerian military has taken its education beyond the military career by providing entrepreneurial courses for senior officers in preparation for re-integration into civil life. Each arm of the military has its different institutions for their peculiar impartation of knowledge to its personnel. Akpomuje (2015) identified the NN specific institutions as shown in Table 1 below as the major training institutions of the NN in Nigeria:

Table 1- Nigerian Navy Training Institutions

Serial	Name of Institution	Location in Nigeria
1.	Nigerian Navy Finance and Logistics School	Owerri nta
2.	Nigerian Navy School of Health Sciences	Offa
3.	Nigerian Navy School of Music	Otta
4.	The Nigerian Navy Engineering College	Sapele
5.	Nigerian Navy Underwater Warfare/Diving School	Apapa
6.	Nigerian Navy Special Forces School	Apapa
7.	Nigerian Provost and Regulating School	Makurdi
8.	Nigerian Navy Intelligence School	Apapa
9.	Nigerian Navy Centre for Education Technology	Apapa
10.	Physical Training School	Apapa
11.	Nigerian Navy School of Armament Technology	Kachia
12.	Nigerian Navy Navigation and Direction School	Apapa
13.	Nigerian Navy Communication School	Ile Ife
14.	Nigerian Navy Hydrography School	Port Harcourt
15.	Nigerian Navy Computer School	Apapa
16.	Naval War College	Calabar

Source: Improved from Akpomuje (2015)

These institutions admit and train personnel depending on their specialisations. These institutions handle both aspects of education and training of the Nigerian Navy personnel. It is pertinent to mention that NN has taken into consideration the difference. Specific NN training institutions of the Nigerian Navy are Nigerian Navy Basic Training School for ratings and Nigerian Naval College for officer cadets training both at Onne. The other services have institutions related to their core competences and fighting needs.

According to Evans (2017), there are four dimensions of education. Using Fadel’s postulation, the four dimensions of education are knowledge, skills, character and Meta cognition.

Knowledge

Knowledge as it applies is that undertraining of personnel has to be both specialist and generalists. Learning a field of study in depth and yet also appreciating and understanding how their speciality connects to other discipline. In education, students need to be introduced to interdisciplinary knowledge capable of being used to tackle societal problems. Knowledge according to Fadel et al (2017) is what you know and understand. Knowledge according to Armstrong (2012) is what people understand about things, concepts, ideas theories, procedures, practise and the ways we do things in a particular location and time. It could be described as know-how or when it is specific, expertise. “Knowing-how” is the ability of a person to perform tasks, and knowing that is holding pieces of knowledge in one’s mind (Ryle, 1949). Knowledge is multifaceted and complex, being both situated and abstract, implicit and explicit, distributed and individual, physical and mental, developing and static, verbal and encoded (Blackler,1995). Knowledge is held individually or collectively (Nonaka, 1991). It is individual, organisations and the society at large.

Skill

Skill is how we use what we know. It entails creativity, critical thinking, communication and collaboration. This is to apply knowledge acquired to solving societal new problem. According to Nwanchuwu (2016) employees’ productivity is the function of abilities, will and situational factors. An Organization may have

employees of abilities and determination with appropriate equipment and managerial support yet productivity fall below expected standard. The missing factor in many cases is the lack of adequate skills and knowledge which are acquired through education, training and development.

Character

Character is how we behave and engage in the society. It is not enough to have knowledge and skills in tackling contemporary challenges; education has to support its students with character development to ensure that they develop the qualities necessary to contribute to shaping a better society. It involves mindfulness, curiosity, courage, resilience, ethics and leadership. This makes the learning person holistic and purposeful.

Metacognition

Metacognition or Meta-Learning is how we reflect and adapt. Meta cognition according to Swanson and Hollton III (2009) is focused on how individuals control their cognitive processes commonly identified as ‘learning how to learn’. Education includes Metacognition growth mind-set. It is the motivation to challenge ourselves to continuously learn when we are no longer compelled by educational institution. It transcends being a student to bring a member of the community whose earlier educational exposure assists in proffering solution to societal problems.

The Concept of Organisational Performance

According to Elena-Iuliana and Maria (2016) the term performance emerged in the mid nineteenth century and was first used in defining the results to a sporting contest. In the twentieth century, the concept has evolved and developed a series of definitions that were meant to encompass the widest sense of what is perceived through performance. Currently, there is no performance independent to targeted objectives. Reaching the objectives translates with achieving the performance. Since the objectives of an organisation cannot be defined precisely and are more and more numerous, the performance is more difficult to define, as it is a relative measure. According to Stephen and Mary (2002) performance is define as accumulated end results of all organisation’s work processes and activities.

In an elaborate definition, Bourguignon (1997) identifies three main senses of the word performance; first, performance is success. Performance does not exist in itself. It varies by representations of the success of businesses or actors. Second, performance is the result of action. This meaning contains only value. Performance measurement is understood as an assessment of achieved outcomes, in the course of a process, an activity. Third, performance is action; In this regard, performance is a process, and not a result, it occurs at a particular time. Performance is achieving organisational performance; it depends on the realisation of the objective/purpose.

The branches of services of the Armed Forces like Army, Navy and Airforce produce services which are classical examples of public goods not provided by markets. The fact that security services are not sold in any market leaves the Armed Forces without information from price mechanism in evaluating efficient use of resources or effective mix of services. Despite the absence of price information on services, the assessment of efficient resource allocations may still be carried out by other methods if physical information on the services is available. Military activity is likely to be observable such as fighter planes spotted in the skies or navy vessels spotted at sea, and troops movement either as a part of training exercise or as a way of determining and showing military presence. The activity is easily measureable in form of flight hours and number of hours in open sea or engagement impact or number of theatre of operations. Output at unit level is among other factors, the result of such activities, and could be modelled. Organisational performance in these instances is the impact of the services made on the objectives that motivate producing services in the first place.

Operational Efficiency

Conceptually, efficiency is applicable in many fields of human endeavour. Efficiency is generally perceived as improved output, optimal resource allocation and attainment of high yield value as defined in Glossary of Game Theory Term. According to Amay (1990) “efficiency to an engineer, may mean the efficiency of a machine and the cost account, efficiency mean productive efficiency of the firm, it is taken as a boundary relationship between rates and physical input and output per unit of time. The economist, in making reference to the efficiency of the firm, also means productive efficiency where there is a close connection between efficiency and profitability under certain conditions”.

In the military, in conduct of operation, Arlinghaus (2020) defined Operational Efficiency as the combination of effectiveness and the possession of combat superiority in terms of operational capabilities to enable fighting forces have combat advantage over an adversary in order to ensure success. Operational efficiency include precisions in operational conducts, dexterity and level of professionalism, resolute confrontation of contemporary and emerging security challenge, maintenance of equipment as well as enhance civil-military relations and promotion of human right in the conduct of both kinetics and non- kinetics operations(Owori,2016 ; Kayoda,2012). The efficiency and organisational performance of the Armed Forces are seen in the operational units of the services according to Torbjorn (2012).In the efficiency literature, Data Envelopment Analysis (DEA) is a well-established non-parametric method for efficiency studies which could be employed without any information on market prices. The adaptation of DEA to determine operation efficiency has to be used for military operation. Operational abilities or efficiency are the “secret ingredients” in explaining the development and maintenance of competitive advantage.

Logistics Optimization

Military operations worldwide are large business enterprises involving platforms, weapons acquisition, logistics management resources planning, personnel administration and training (Ezekobe, 2016). Strategically, effective logistics management is key to the smooth running of any organisations particularly the military, be it in war or peace times, effective and efficient logistics management provides the edge over adversaries in military campaigns; this is logistics optimization. Unarguably, failures of most military campaign were traceable to inadequate logistics planning and execution. The organisational performance of military organisation could be assessed through its logistics optimization.

Military logistics is the process, resources, and system involved in generating, transporting sustaining and redeploying materiel and personnel according to Joint Publication (2009). Generation includes production and procurement of the military forces, it directly influences the swiftness with which the armed forces could mobilize and its endurance in operation. Transportation is the movement of personnel and materiel into and throughout the general Area of Operation (AOO). Sustenance is the ability to keep the operation hook-up to the supply route(s) without adversary’s interference. Redeployment and reallocation takes place at all levels of the military command. It ranges from evacuation of personnel and material for the purpose of maintenance, reconstitution and medical care at the unit level to the termination of any conflict at the Grand-Strategic Level. (Eccles, 1959;Thompson, 1991). It requires guts, intellect, skill, knowledge and handwork to achieve the intricacies of logistics optimization. Motivation, Education, training and development, and retraining on continuous basis is utilised to realise effective and efficient logistics optimization in the military which is key to force stability and mission accomplishment.

Effective equipment maintenance

Effectiveness according to Wehrich and Koontz (2016) is the achievement of objectives. It is during the right thing, to make the organisation closer to its predetermined or announced objectives, thus, it deals with ends, achievement of goals (Nwachukwu, 2016). The goal of effective equipment maintenance in NN is as stated in Book of Refernce (BR) 67 as: The use of any or all resources required to assure or restore a specific material condition or level of performance. According to Jonah (2011), this is to maintain the designed performance of the equipment throughout her service life. BR 67 went further to categorized maintenance as preventive maintenance, creative maintenance, modification and alterations/additions. The objective is the assurance of equipment availability that enhances operational efficiency and assists logistics optimization.

Effective equipment maintenance is to guarantee availability for operational usage by the organisation; it is a hallmark of a productive organisation. According to Johnson (2011), for his survival man acquired more nonphysical capacity while the physical dimension diminished to such as extent that brain supported by sophisticated tools became consequential in the evolution of machines. Man was kind enough to have developed machines and component parts to such a level that it is much more efficient. With sophistication in its controls and associated auxiliaries, machines use about a third of fuel when compared to those of antiquity. It is the developmental staged that man went through and sophistication in machinery which made modern ships, aircraft and tanks very complex but easy to maintain if maintenance procedures are strictly followed, maintenance culture sustained and positive attitude displayed by skilled personnel.

Furthermore, machinery failures and breakdowns are part of life for all kinds of machines. It could be argued and rightly too, that this state of affairs may be easily surmountable in a productive organisation. On many occasions, non-adherence to Planned Maintenance Schedules (PMS) has been attributed to be responsible for machine failures. Inability to read and comprehend manufacture's instruction manuals coupled with the use of wrong tools have also resulted in machinery failure.

Education and Organisational performance in Telecommunication Firms in South-South, Nigeria

According to Obasi, Asogwa and Nwafee (2018) on their work on military expenditure and human capital in Nigeria, it concluded that the role of education is pivotal in comprehending, controlling, altering, and recreating of human environment. Education apart from importing skills and knowledge, improve health, and organisational performance. The work of Griliches (2000) on R&D education and organisational performance: a retrospective, the role of education and human capital and production functions states that the contribution to education and organisational performance to economic growth is inexorable and exponential. In another work by Lau, Jamison and Louat (1991) on education and organisational performance in developing countries: and aggregate production function approach states that education is an important determinate of aggregate real output and organisational performance, but its effect varies considerably across countries and regions- ranging from negative to more than 5 percent a year. They pulled data on 58 developing countries from 1960 through 1986, to estimate an aggregate production function using as independent variables the quantities of capital, labour, land, average educational attainment of the labour force and chronological time. They measured the percentage change in the region real GDP in response to an increase of one year in the average educational attainment of the working age population in 1985.

The work of Chevalier, Harmon, Walker and Zhu (2004) on does education raise organisational performance or just reflect it? The study was carried out in United Kingdom. The study interrogated whether education raise organisational performance or because it is simply a signal of ability. The study implemented a number of exiting tests for discriminating between these two explanations and found that they do not support the signaling hypothesis. However, using UK data appear to strongly support the human capital explanation. In another work by Downes (2001) on education, organisational performance and economic development of Barbados the study was carried out in Barbados, a Caribbean country. The study used the population of educated citizen and concluded that a key factor in the drive to increase organisational performance is the development of human resources which constitute one element with the organisational performance equation.

Based on the foregoing, the study thus hypothesized thus:

H₀₁: There is no significant relationship between education and operational efficiency of the Nigerian Armed Forces.

H₀₂: There is no significant relationship between education and logistics optimization of the Nigerian Armed Forces.

H₀₃: There is no significant relationship between education and effective equipment maintenance of the Nigerian Armed Forces.

Methodology

The study adopted the descriptive survey design using quantitative approach in which data were collected through questionnaire from 60 respondents who were senior naval personnel. Six formations of the Nigerian Navy formed the population of this study. Data collected were analysed using Statistical Package for Social Science Version 23.0, Spearman Rank order coefficient tools were used for testing the hypothesis. The tests were carried out at a 95% confidence interval and a 0.05 level of significance.

Data Analysis and Results

Bivariate Analysis

The level of significance 0.05 was adopted as a criterion for the probability of accepting the null hypothesis in ($p > 0.05$) or rejecting the null hypothesis in ($p < 0.05$).

Education and Organisational Performance Measures

Table 1 shows the result of correlation matrix obtained for education and organizational performance which is used to answer the research question.

Table 4.21: Correlations for Education and Organisational Performance

			Education	Operational efficiency	Logistics Optimization	Equipment Maintenance
Spearman's rho	Education	Correlation Coefficient	1.000	.703**	.766**	.794**
		Sig. (2-tailed)	.	.000	.000	.000
		N	59	59	59	59
	Operational efficiency	Correlation Coefficient	.703**	1.000	.577**	.948**
		Sig. (2-tailed)	.000	.	.000	.000
		N	59	59	59	59
	Logistics Optimization	Correlation Coefficient	.766**	.577**	1.000	.689**
		Sig. (2-tailed)	.000	.000	.	.000
		N	59	59	59	59
	Effective Equipment Maintenance	Correlation Coefficient	.794**	.948**	.689**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	59	59	59	59

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output version 23.0

RQ: What is the relationship between education and organizational performance of the Nigerian Armed Forces?

The correlation coefficient (rho) result in table 1 was used to answer the research question. Table 1 shows a Spearman Rank Order Correlation Coefficient (rho) of 0.703 on the relationship between education and operational efficiency. This value implies that a strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in operational efficiency was as a result of the adoption of education in the Nigerian Armed Forces. Therefore, there is a positive and strong correlation between education and operational efficiency in in the Nigerian Armed Forces.

Similarly, Table 1 shows a Spearman Rank Order Correlation Coefficient (rho) of 0.766 on the relationship between education and logistics utilization. This value implies that a strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive; implying that an increase in logistics optimization was as a result of the adoption of education in the Nigerian Armed Forces. Therefore, there is a positive and strong correlation between education and logistics optimization in in the Nigerian Armed Forces.

Furthermore, Table 4.1 shows a Spearman Rank Order Correlation Coefficient (rho) of 0.794 on the relationship between education and effective equipment maintenance. This value implies that a strong relationship exists between the variables. The direction of the relationship indicates that the correlation is positive;

implying that an increase in effective equipment maintenance was as a result of the adoption of education in the Nigerian Armed Forces. Therefore, there is a positive and strong correlation between education and effective equipment maintenance in the Nigerian Armed Forces.

Therefore, to enable us accept or reject hypotheses as well as generalize our findings to the study population the p- value was used as shown below:

H₀₁: There is no significant relationship between education and operational efficiency of the Nigerian Armed Forces.

Similarly displayed in the table 4.21 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from table 4.1, the sig- calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between education and operational efficiency of the Nigerian Armed Forces.

H₀₂: There is no significant relationship between education and logistics optimization of the Nigerian Armed Forces.

Also displayed in the table 4.21 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from table 4.21, the sig- calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between education and logistics optimization of the Nigerian Armed Forces.

H₀₃: There is no significant relationship between education and effective equipment maintenance of the Nigerian Armed Forces.

Also displayed in the table 4.21 is the statistical test of significance (p-value) which makes possible the generalization of our findings to the study population. From the result obtained from table 4.21, the sig- calculated is less than significant level ($p = 0.000 < 0.05$). Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between education and effective equipment maintenance of the Nigerian Armed Forces.

Therefore, the results for the first set of hypotheses with regards to the relationship between education and organizational performance are stated as follows:

- i. There is a strong positive significant relationship between education and operational efficiency of the Nigerian Armed Forces.
- ii. There is a strong positive significant relationship between education and logistics optimization of the Nigerian Armed Forces.
- iii. There is a strong positive significant relationship between education and effective equipment maintenance of the Nigerian Armed Forces.

Discussion of Findings

The findings revealed that there is a strong positive and significant relationship between education and organizational performance of the Nigerian Armed Forces. This finding agrees with previous thoughts of Obasi, Asogwa and Nwafee (2018) on military expenditure and human capital in Nigeria, it concluded that the role of education is pivotal in comprehending controlling, altering, and recreating of human environment, military environment not being an exemption.

The current findings also agrees with Lau, Jamison and Louat (1991) and found that education is an importance determinate of aggregate real output and productivity, but its effect varies considerable across countries and regions- ranging from negative to more than 5 percent a year.

The findings equally agrees with Idris (2015); Jalili and Annen (2019) who argued that military personnel undergo Professional Military Education (PME) to keep themselves updated on emerging concerns on matters of national and international security and stability. It is expected that PME is made available to all personnel of the Nigerian Armed Forces irrespective of gender, religion and socio-economic status. The current finding also provides empirical evidence to the conceptual argument of Jalili and Annen (2019) who posited that Military Education (ME) comprises military training instructions to provide personnel with the intellectual grounding and the cultivation of wisdom and judgment they require in responding to socially complex situations in the society. Professional development for civilians who serve in the military is an important component of the structure of the Nigerian Navy (Idris, 2015; Jalili & Annen, 2019; Policy and Legal Advocacy Centre, 2012). Angelevski and Smileski (2013) argued that providing security in a rapidly changing and unpredictable world depends to a large

extent on the military's morale, motivation, and specialized skills which are influenced by their academic background, professional education, and special military training. It is however necessary that education policy be separated from training policy for realisation of the benefit of education.

Conclusion

This study examined the relationship between education and organizational performance of the Nigerian Armed Forces. At the heart of any successful activity lies a competence or a skill. Military Education (ME) comprises military training instructions to provide personnel with the intellectual grounding and the cultivation of wisdom and judgment they require in responding to socially complex situations in the society. The finding led to the conclusion that education significantly and positively predicts performance (operational efficiency, logistics utilization and effective equipment maintenance) of the Nigerian Armed Forces. It is necessary that the right caliber of persons be recruited into the Nigerian Armed Forces to make their educational pursuit in the services fruitful. Equally, the idea of having one policy covering training and education in the military is not helpful and require a revisit.

Recommendations

Taken from the findings of the study, it is recommended that;

1. The Nigerian Armed Forces should recruit abi-initio, young Nigerians that could be exposed to the rigours of education.
2. The Nigerian Armed Forces should promulgate a separate policy on education to properly focus the aspects of military education in Nigeria.

REFERENCES

- Adekeye, G. T. A. (2006). Nigerian Navy in national defence. Abuja: Paper presented to participants of National War College.
- Akpomuje, P. (2015). An investigation into gender issues in the continuing professional education of officers and ratings of the Nigerian Navy. Unpublished Master Thesis, Obafemi Awolowo University, Ile-Ife.
- Almendarez, L. (2011). Human capital model theory: implications for educational development. <http://www.open.uwi.edu/sites/default/files/bnude/belizel/conference/papers/2010> Retrieved 6th June 2021.
- Amay, L. A. (1990). Efficiency of business enterprises. London: G. Allen and Unwin Limited Publishing.
- Angelevski, S., & Smileski, R. (2013). Reforms in military education – gender issues in the Republic of Macedonia. General Staff of Slovenian Armed Forces. <http://eprints.ugd.edu.mk/12695/1/Trud%20%20-%20Slavko%20Angelevski.pdf>. Retrieved 7th June, 2021.
- Arlinghaus, B. E. (2020). Military development in Africa: The political and economic risk of arms transfer. England: Routledge Publication.
- Armed Forces Acts (2004).
- Armstrong, M. (2012). Armstorg's handbook of human resource management practice. London: Kongapage Publication.
- Becker, G. S. (1964), Human capital. New York: Columbia University Press for the National Bureau of Economic Research.
- Becker, G. S. (1993). Human capital: A theoretical and empirical analysis with special reference to education. Chicago, IL: University of Chicago Press.
- Bourguignon, A. (1997). The multiple functions of accounting vocabulary: The example of performance. Paris: French Accounting Review.

- Brumbach, G.B. (1988). Some ideas, issues and predictions, about performance management. Publication of personnel management. Winter Edition, 387- 402.
- Blacker, F. (1995). Knowledge, Knowledge work and experience. Organisation studies 16(6),16-36.
- Charles Fadel etal (2017). Four dimensional education
- Chevalier, A., Harmon, C., Walker, I., & Zhu, Y. (2004). On does education raise organisational performance or just reflect it? *The Economic Journal* 114(499), 499-517.
- Constitution of the Federal Republic of Nigeria (1999).
- Dae-bong, K. (2009). Human capital and its measurement the 3rd OECD World Forum on “statistics, knowledge and policy.” charting progress, building visions, improving life, Busan Korea 27.
- Downes, A. S. (2001). Education, organisational performance and the economic development of Barbados. *Caribbean quarterly*, 47(2/3), 1-19.
- Eccles, H. (1959). Logistics and the national defence. Harrisburg, PA: Stackpole Company Publishing.
- Ehrlich, I., & Murphy, K. M. (2007). Why does human capital need a journal? *Journal of Human Capital* (1), 1-7.
- Elena-Iuliana, I., & Maria, C. (2016). Organsational performace – A concept that self-seeks to find itself. *Annals of the Contantin Brancusi, University of Targu Jiu Economy Series*, 4.
- Evans, R. (2017). Four dimension of education: 21st century teaching and learning. Utschools.
- Eze, F. O. (2010). Human resource management: Strategy, theory and applications. Enugu, Ogbu Printers and Publishers.
- Ezeoba, D.J. (2014). Chief of Naval Staff Strategic Guidance 01. Abuja: Naval Headquarters Print.
- Griliches, Z. (2000) R&D education and organisational performance: A retrospective. Cambridge: Harvard University Press.
- Ibas, I. E. (2016). The Nigerian Navy: Challenges and future perspectives. *The Sailor Magazine*, 43, 9-20.
- Idris, M. I. (2019). Professional military education for the modern officer: the Nigerian experience. In D. Jalili, and H. Annen (Eds.), *Professional military education: a cross cultural survey*, 35-42.
- Jalili, D. & Annen, H. (2019). Professional military education: a cross-cultural survey. *Studies in Military Psychology and Pedagogy*. Switzerland: Peter Lang. DOI: <https://doi.org/10.3726/b15676>
- Johnson, A. (2011). Man’s dominion over machines in the navy, authoritative magazine of the Nigeria Navy: *The Sailor*. 33.

Joint Publication (JP) 3-17: Air mobility operations 2 October, 2009.

Jonah, G. J. (2011). Naval engineering and fleet readiness: Challenges and transformation strategies for the Nigerian Navy. *The Sailor Magazine* 30, 37-42.

Kayoda, W. O. (2012). Maritime security in the Gulf of Guinea. *The Sailor Magazine*, 34.

Lau, L. J., Jamison, D. T., & Louat, F. F. (1991). Educational and organisational performance in developing countries: An aggregate production function approach. New York: World Bank Publication.

Mbachu, O., & Sokoto, A. A. (2016). Nigeria defence and security: polices and strategies. Kaduna: Medusa Academic Publishers Limited.

National Policy (Nigeria) on Education, 2013.

Nwachukwu, C. C. (2016). Management theory and practice: Onitsha: Africa First Publishers, PLC.

Nonaka, I. (1991). The knowledge creating company. *Harvard Business review*, November-December.

Obasanjo, O. (2000). Grand strategy on national security. Abuja. Government Press.

Obasi, C. N., Asogwa, F. O., & Nwafee, F. I. (2018). Military expenditure and human capital development in Nigeria. *America Journal of Economic*, 8(5), 221-229.

Okenqwu, E. (2020). Human capital development. Abuja: NTA Good Morning Nigeria of 24 February 2020.

Quiggin, J. (1999). Human capital theory and education policy in Australia. *Australian Economic Review*, 32(2),130-144.

Rosen, S. (1975), "Measuring the obsolescence of knowledge", Education, income and human behaviour (edited by Juster, T. R.), Carnegie Commission and NBER, New York: McGraw- Hill Book Company.

Ryle, G. (1949). The concept of mind. Oxford, UK: Oxford University Press.

Schultz, T. N. (1981). Investing in people: The economics of population quality, Los Angeles, CA: University of California Press.

Stephen, P.R. & Mary, K.C. (2002). Management. Boston, MA: Prentice Hall.

Swanson, R. A. & Holton III, E. F. (2009) Foundations of human resource development. San Francisco, FA. Benrett-Koehler Publisher, Inc.

Thompson, J. (1991). The lifeblood of war: Logistics in armed conflict. London: Brassey.

Torbjorn, H. (2012). Efficiency and organisational performance in the operational units of the Armed Forces. <https://www.econstor.eu/bitstream/10419/90728/1/687580765.pdf>.

- Wehrich, H., & Koontz, H. (2016). *Management: Global perspective*. New Delhi: Tata McGraw-Hill Publishing Company Limited.
- Whooley, J. S., (1996). Formative and summative evaluation: related issues in performance measurement. *American Journal of Evaluation*, 12(2).
- Zidan, S. S. (2001). The role of HRD in economic development. *Human Resource Development Quarterly*, 12(4), 437.
- Nunn, J. (2019). The Emerging Impact of AI on HR. Accessed from <https://www.forbes.com/sites/forbestechcouncil/2019/02/06/the-emerging-impact-of-ai-on-hr/#6d23a2ca5496> accessed on 20.03.19
- Panda, S. & Rath, S. K. (2017). The effect of human it capability on organizational agility: An empirical analysis. *Management Research Review*, 40 (7), 800–820.
- Parveen, N. A., & Palaniammal, V. S. (2019). A study on artificial intelligence in human resource management today and tomorrow. *International Journal of Research and Analytical Reviews (IJRAR)*, 6 (1), 513-516.
- Prasanna M., & Kusuma G. (2019) To Study Impact of Artificial Intelligence on Human Resource Management. *International Research Journal of Engineering and Technology (IRJET)*, 06(08),
- Ranjan, J., Tripathi,P.& Pandeya, T. (2012). Human resource management through ai approach: An experimental study of an expert system. National Conference on Communication Technologies & its impact on Next Generation Computing, *International Journal of Computer Applications*, 23-26.
- Ranjan, J., Tripathi,P.& Pandeya, T. (2012). Human resource management through ai approach: An experimental study of an expert system. National Conference on Communication Technologies & its impact on Next Generation Computing, *International Journal of Computer Applications*, 23-26.
- Razmi1, B. & Ghasemi, H. M. (2015). Designing a model of organizational agility: A case study of ardabil gas company. *International Journal of Organizational Leadership* 4, 100-117.
- Rykun. E. (2019). Artificial intelligence in HR management: What can we expect? Retrieved from <https://thebossmagazine.com/ai-hr-management/> (Extracted 19thApril, 2021).
- Saha, N., Gregar, A. & Sáha, P. (2017). Organizational agility and HRM strategy: Do they really enhance firms’ competitiveness? *International Journal of Organizational Leadership* 6 (1) 323-334.
- SAS (2019). Artificial Intelligence, what it is and why it matters. [online] Available at: https://www.sas.com/en_us/insights/analytics/what-is-artificial-intelligence.html [Accessed 13 April 2019]
- Schumpeter, J. A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest and the business cycle*. Cambridge, MA: Harvard University Press.
- Septiarini, D. F., Filianti, D. & Suprayogi, N. (2020). Impact of disruption era on organization performance sustainability: A case study. *Journal of Security and Sustainability Issues*, 9 (1), 18-33.

- Sherehiy, B., Karwowski, W. & Layer, J. (2007). A review of enterprise agility: Concepts, frameworks, and attributes. *International Journal of Industrial Ergonomics*, 37(5), 445-460.
- Siyadat, S. A. & Yusefi, F. (2016). Investigating the relationship between the organizational agility and the components of resistive economy in Isfahan's department of education. *Mediterranean Journal of Social Sciences*, 7 (3), 279-287.
- Stanley, D. S., & Aggarwal, V. (2019). Impact of disruptive technology on human resource management practices. *International Journal of Business Continuity and Risk Management*, 9 (4), 350-361.
- Stevenson, M. (2019). AI in hr. Retrieved from <https://www.hrexchangenetwork.com/hr-tech/articles/ai-in-hr>. (7th June, 2021).
- Stone, D. L., Deadrick, D. L., Lukaszewski, K. M. & Johnson, R. (2015). The influence of technology on the future of human resource management. *Journal of Human Resource Management Review*, 25(2), 216-231.
- Stone, P., Brooks, R., Brynjolfsson, E., Calo, R., Etzioni, O., Hager, G., & Hirschberg, J. (2016). *Artificial Intelligence and life in 2030*. Stanford University.
- Teece D. J. (2008). *Dynamic capabilities*. In Lazonick W. (ed.), *The international Encyclopedia of Business and Management*. London: Thomas Learning Publishers.
- Teece, D., & Pisano, G. (1994). The dynamic capabilities of firms: An introduction. *Industrial and Corporate Change*, 3(3), 537-556.
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28 (13), 1319-1350.
- Teece, D. J., Pisano, G. & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18 (7), 509-533.
- Van-Esch, P. & Stewart-Black, J. (2019). Factors that influence new generation candidates to engage with and complete digital, AI-enabled recruiting. *Business Horizons*, 62(6):729-739.
- Van-Esch, P., Stewart-Black, J., Franklin, D. & Harder, M. (2020). AI-enabled biometrics in recruiting: Insights from marketers for managers. *Australasian Marketing Journal*, (In Press), 1-9.
- Verlinden, N. (2019). 9 intriguing uses of ai in recruitment in 2019. Retrieved from <https://harver.com/blog/ai-in-recruitment-2019/>(5th July, 2021).
- Villani, C. (2018). Artificial intelligence vs human intelligence. The villani artificial intelligence report, 29-44.
- Wendler, R. & Dresden, T. (2014). Development of the organizational agility maturity model. Proceedings of the 2014 Federated Conference on Computer Science and Information Systems, 1197–1206.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180.

- Williams, T., Worley, C. G. & Lawler III, E. E. (2013). The agility factor. *Strategy + Business*. Retrieved from <https://www.strategy-business.com/article/00188>(10thJuly, 2021).
- Worley, C. G., & Lawler, E. E. (2010). Agility and organization design: A diagnostic framework. *Organizational Dynamics*, 39 (2), 194-204.
- Worley, C. G., Williams, T., & Lawler, E. E., (2014). *The agility factor: Building adaptable organizations for superior performance*. San Francisco, CA: Jossey-Bass.
- Yeganegi, K., & Azar, M. S. Z. A. (2012). The effect of it on organizational agility. *Proceedings of the 2012 International Conference on Industrial Engineering and Operations Management Istanbul, Turkey, July 3 – 6*, 2537–2544.
- Žitkienė, R., & Deksnys, M. (2018). Organizational agility conceptual model. *Montenegrin Journal of Economics*, 14 (2), 115-129.