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INFLUENCE OF HUMAN CAPITAL FORMATION PROGRAMME ON JOB PERFORMANCE EFFECTIVENESS IN SELECTED INDUSTRIAL ORGANIZATIONS IN OSUN STATE, NIGERIA

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ABSTRACT

The study investigated the influence of human capital formation programmes of the government on job performance effectiveness in industrial organizations in Osun state. This is with a view to ascertain the importance of government service delivery programmes on industrial organizations in the State. The descriptive survey method was adopted for the study. Questionnaire was used to collect information from a total of 200 workers in manufacturing (Olaoluwa Aina Wire Industry) and agricultural industry (like those who went to Songhai). Oral interview was used to collect information from Ministries about the activities of the government. The results of the survey reveal that the human capital development programmes provided for workers have impacted on their job performance effectiveness. The computer training has significant effect on innovation ($t=7.306$, $P<0.05$) adaptability ($t=2.073$, $P<0.05$), staff development ($t=4.626$, $P<0.05$). Team building training programme also has significant effect on almost all the factors creativity ($t=6.269$, $P<0.05$) strategic leadership ($t=5.424$,$P<0.05$), teamwork ($t=2.654$,$P<0.05$); Interpersonal training programme has more significant effect on strategic leadership ($t=6.621$,$P<0.05$) and teamwork, with more impact on teamwork ($Beta=0.658$,$P<0.05$). In addition, Communication skill training equally has significant effect on teamwork ($t=7.588$, $P<0.05$), innovation, satisfaction ($t=2.520$, $P<0.05$) and finally, Labour-Management related Skill training impact more on creativity ($Beta=1.34$,$P<0.05$) and strategic leadership ($Beta=1.098$,$P<0.05$) and customer services ($Beta=1.832$,$P<0.05$). Based on the findings, it was recommended that the capital formation programme should be allowed to go round all workers for equal development.

Keywords: *Osun State, Nigeria, human capital, effective, job performance*

INTRODUCTION

The concept of human capital is similar to the concept of Physical Capital. The idea that investment in human capital promotes economic growth is dated back to the time of Adam Smith (1776) in The Economist (1997) and early classical economists. The classicals emphasized the importance of investing in human skills to improve the productive capacities of labour force (Psycharopoulos & Woodhall, 2006). Human capital has been identified as a major factor in productivity of individual. The World Bank studies conducted by Jamison and Lau (1982) on agricultural productivity in the 1980s confirmed the relationship between human capital and agricultural productivity. Investment in human capital can be in terms of education, training, medical treatment etc. Education is seen as a major investment in human capital; Adam Smith thus likened an educated man to an expensive machine about 235 years ago in his book titled 'The Wealth of Nations'. Thus human capital formation has been

identified as having much influence on the competitive advantage of firms (Praise, 1995; Teixeira, 2002). The government activities have to do with service delivery which determines the performance of employee and organization. As the service provider, the state government is providing necessary services to the people in today's environment, where the source of wealth is no longer natural resources or physical labour but knowledge, technology, information and good health. For public service to develop to world class, according to Yunus (2007), there is need to develop programme such as mindset and attitude to achieve excellence, ethics and morality; experiences and skill in human capital development, excellent work culture and leadership quality.

The argument is that the ultimate asset of any government is the people to deliver the services and so must be well focused for better performance and sustainable development. In recent times, there have been complaints about the spendings of the government. It is believed that the spendings are somehow wasteful but some of them were identified to be on human capital development. Various human capital formation programmes have been put in place in Osun State of Nigeria. These were in the field of health, education, infrastructural and other service delivery. This study is designed to identify the various organised human capital formation programmes and their impact on job performance effectiveness in industrial organisations in Osun State. This study is deemed necessary because there is need to see the impact of government service delivery on human capital development and job performance considering the various activities of the government recently.

Concept of Human Capital and Human Capital Formation

Human capital is the skill, knowledge) or abilities acquired by labour or a stock of assets in a country which allows an individual to receive a flow of income, which could be likened to interest earned in physical capital (Yunus, 2007; Yesufu, 2000)). Income of individual is a function of human capital possessed by the workforce (Yesufu, 2000). From the view point of job performance, there may be substitution or complementary relationship between experience and training or education (Teixeira, 2002). Human capital is a widely used concept with varying definitions which is sometimes taken to include only schooling (i.e. acquired formal education). In other circumstances, it is defined as wide set of investment that influence well-being and productivity of people, firms and nations like investments in health and nutrition, as well as vocational training (Mincer, 1996). Human Capital formation on the other hand, is the process of acquiring and increasing the number of persons who have the skills, education and experience which are critical for the economic and political development of a country (Yesufu, 2000). Human capital formation is associated with investment in man and his development as a creative and productive person. There are different ways of acquiring and developing human capital, these various ways called, human capital investment include investment in education, training, health promotion, as well as "investment in all social services that could influence man's productive capacities especially transport and housing (Okojie,1995). Education is identified in most human capital studies as the most important component of human capital. However, formal education and off-the-job training are identified as general human capital while on-the-job training is called specific

human capital (Teixeira, 2002). From the view point of Lall and Wignavaj (1997) human capital concept can be divided into two main components. First, skill development associated with industry related education and training (both formal and informal). Second is technological capability formation, which accounts for the development of individual and institutional skills and knowledge derived from technological effort. Human resource development is a framework for the expansion of human capital within an organization, in a region or nation. Human resource development is a combination of training and education in a broad context of adequate health and development policies that ensure the continuous improvement and growth of the individual, the organisation and the nation. Adam Smith affirmed that the capacities of individuals depend on their access to education (Kenlly, 2001). Investment in human capital has been recognised by early economists as a factor that increases productivity. The challenge facing any organization is to build and enhance a cadre of highly qualified, highly matured and highly able human resource at all levels of job performance. The concern of such organization must be to modernise and transform the human capital and efforts necessary for excellent and high quality service delivery to the stakeholders and clients in this 21st century (Teixeira, 2002).

The roles of human capital formation programmes in effective performance of job are of paramount importance. The assessment of the job performance of the organization may prompt management to plan and develop its human capital. Any organisation will need to transform from past standards of human capital to a much higher level (Blaug, 2006). Greater recognition has been given to the role of people and human capital development (endogenous factor) in the 20th century although, more emphasis had been placed on exogenous factors like technological change in the past as being necessary for successive waves of growth and sustained development (Yunus, 2008). Thus endogenous growth theory is an important theoretical framework for this paper. The government service delivery determines the performance of employee and organisations. Everything that is done in service delivery should not be seen just as a nuisance activity that can be relegated but government need to face the challenge and be alert to the service delivery implications and its impact on the community. A community desires a high standard of service delivery from the government as a social contract for achieving societal goals and better standard of living which influence job performance.

Theoretical Framework

Endogenous Growth Theory is an economic theory which argues that economic growth is generated from within a system as a direct result of internal processes. More specifically, the theory notes that the enhancement of a nation's human capital will lead to economic growth by means of the development of new forms of technology and efficient and effective means of production (**Romer, 1990)**. Importance is usually given to the production of new technologies and human capital. In economics, endogenous growth theory was developed in the 1980s as a response to criticism of the neo-classical growth model. The endogenous growth theory holds that policy measures can have an impact on the long-run growth rate of an economy. For example, subsidies on research and development or education increase the

growth rate in some endogenous growth models by increasing the incentive to innovate. Often endogenous growth theory assumes constant marginal productivity of capital at the aggregate level, or at least that the limit of the marginal productivity of capital does not tend towards zero. Endogenous growth economists believe that **improvements in productivity can be linked to a faster pace of innovation and extra investment in human capital.** Endogenous growth theorists stress the need for government and private sector institutions and markets which nurture innovation, and provide incentives for individuals to be inventive. There is also a central role for **knowledge** as a determinant of economic growth. Endogenous growth theory predicts **positive externalities** and **spill-over effects** from development of a high value-added knowledge economy which is able to develop and maintain a competitive advantage in growth industries in the global economy. An understanding of underlying factor in long term economic prosperity has been revealed through endogenous growth theory. The key factor in economic growth is shown in the role of human capital as an important driver of technological change and hence development (Sims, 2004).

Job Performance and Human Capital

It is believed that education improves level of performance. Wages may not be preferable in measuring the effect of education on physical measures of output. A survey of the eighteen studies of World Bank on link between education and measure of agricultural efficiency or productivity among farmers in low income countries as far back as 1980 reveals the following. First, that: productivity of elementary education, on the average, is 8.7 percent higher than that of a farmer with no education. Secondly, using complementary inputs the annual output of a farmer who had completed four years of primary schooling was 13.2 percent higher, on the average, than that of a farmer who had not been to school (apendix1) (Psacharopoulos and Woodhall, 2006). It therefore shows that the effects of education are felt in the use of improved farming techniques and use of complementary inputs. World Bank Studies in Republic of Korea, Malaysia, Nepal and Thailand equally show that effects of education are 'positive', statistically significant and quantitatively important (Jamison and Lay, 1982).

The classical economists belief that acquired skills and abilities will increase worker productivity. Since the late 80s, education (mainly at higher levels) has been increasingly associated with economic performance issues. The detailed study of workers in Kenya and Tanzania using data on ability, schooling, skills and wages, shows that the effect of schooling on wages is not a result of signal but because schooling increases skills and skills increase wages. (Knight and Sabot 1990). Thus, improved skills mean more contributions to industrial performance which prompts employers to pay more. The engine of growth has been assigned to human capital. Positive effect has been attributed to educational attainment and this is visible in workers productivity with an important growth enhancing effect (Teixeira, 2002). Therefore improved economic performance is associated with increased (more) education and training. Governments all over the world have assumed a close link between educational achievements and economic success to the extent that education is considered to

be a productive asset but not consumer good, the shift towards human capital issues and performance was a consequence of the growing concern that the education system should be more responsive to expectations from the economic system (Economist, 1997). In an era of human capital, what matters is not organizational firm in terms of entrepreneurial or managerial but organizational process with regards to learning and transformation. here is a belief that new ways of organizing production are also putting premium on education (Rodrigues and Lopes, 1997) the ability of enterprise to create a more efficient work organisation depends on the level of education (OECD,1992). Firms and other work organisations are changing from chiefly production-centred economic units to being learning-centred economic units (Ferreira, 1994). Thus, there is a shift in emphasis from physical and financial capital to focus on the increasing importance of human capital and continuous learning for sustaining competitive advantage. The World Bank experience of educational investment is that education provides human resource for various industrial sectors of the economy. Apart from that, it influences social welfare through its indirect effects on health, fertility and life expectancy and increases the profitability of other forms of social and physical investment.

Methodology

This study made use of survey research method. Questionnaires were distributed to workers in two sets of industries: Manufacturing and agricultural. The descriptive statistics was used to analyse the information collected. The data collected was subjected to Statistical Package for the Social Sciences (SPSS) for proper analysis and regression results. The study adopted survey research design method to investigate the type and effect of human capital formation in Osun State of Nigeria. The population for the study are workers in manufacturing (50) and agricultural (100) industries as well as the government agencies (50). The information on human capital formation programmes in Osun State is collected from the government ministries like: ministries of local government and community development, agriculture and micro-credit department.

Human Capital Formation in Osun State

Human capital formation as earlier defined has taken various forms in Osun state. As the government activities have to do with service delivery, various human capital formation programmes in Osun state include provision of health services, education, infrastructural facilities, agricultural inputs and microcredit through micro-finance. Many training programmes for artisan were organised to get citizens adequately developed in certain skills. The training has reduced the number of unemployed youth in the state. In the field of education, there is free education for all in primary and secondary schools. Even at the primary level, there is free feeding for improvement in nutritional level and health of the pupils while at the secondary level, government pays the WASSC fees of the students in SS 3 class. To complement this, Osun State University was established to provide space for 'eligible rejects' (students who are qualified but not given admission)(Oladeji,1987). The university also organises capacity building workshops for secondary school teachers for updating their knowledge in various areas of education. Also there was construction of roads

to aid easy transportation; employment is also provided for youth through 'Oyin corps' and Osun Youth Employment Scheme (OYES). Young farmers about one hundred and fifty-five were also sent to Songhai to acquire more and better farming techniques. Apart from the above, the UNICEF-FGN country program of 2002-2007 had Community Development as one of the five key intervention areas using Community Driven Approach as strategy for achieving the objectives of the initiative.

This UNICEF-PGN Programme was limited to only six Communities in three out of the thirty Local Government Areas (LGA) and Ife Area Office of the State. The State Government however replicate the good practice in the other less privileged Communities every three years for development of social and human capital at the grassroots. Thus, a total of 61 communities were selected in 2006 at the rate of two each per Local Government Area and one in the Area office. The following human capital formation projects were successfully carried out every year:

- Training of 1,923 Community members and LGA officials on Key Household Practices to reduce maternal and child mortality in line with Millennium Development Goals (MDGs) 4and 5.
- Empowerment of 610 women through vocational training in areas of decoration, bead making, catering, tie and die, soap and pomade making. An interest free loan of ten thousand Naira was made available to each participant. This is to make them economically viable and supportive in home finances as well as fulfilling MDGs 1&3
- Procurement and distribution of Farm implements/inputs like Sprayers, Gramozones and Attrazine to 1,220 Farmers in the 61 Communities
- Training of 134 Artisans on repair of handpump boreholes provided for the communities and the distribution of free tool kits to the community concerned at the graduation ceremony in July, 2009(Community Development & Women Affairs, 2010)

Effects of human Capital Formation on Job Performance effectiveness in Industries

Human capital has been identified as a pre-condition for and often a determinant of economic performance and international competitiveness. Industrial deepening and upgrading requires higher levels of skill and know-how in almost every function of an organisation (Teixeira, 2002) which may be acquired through activities like education, on-the-job training and off-the-job. In the education industry, there have been better performance and increased enrolment due to human capital development programme. It has been established that school lunches improve attendance and better school performance, School feeding provided under the Home-grown in primary schools in Osun state has confirmed both improved attendance and performance. Osun state has adopted a school feeding programme implemented in all primary schools in the state, using to the greatest extent possible, locally produced foodstuffs like poultry products, beverage, green vegetables, fruits etc. This is supported by studies conducted in former Kigezi district in Uganda which found that students' excellent performance was in large part due to eating adequate and balanced nutritious meals (Eric Kashambuzi, 2010). Such is also the situation in

Osun state and this has increased the population of primary school pupils in public schools drastically. Increased education is seen as helping to enhance a worker's ability to acquire and decode information about costs and productive characteristics of other factor inputs. It enhances a worker's ability to deal with disequilibria. It is believed to enhance productivity. Education is thus, a source of information for decoding new technical information and using such in manufacturing industries. According to Easterlin (1981), the more schooling of appropriate content that a nation's population had, the easier it was to master the new technological knowledge available at a time. With the free education and increased effort to make sure people are educated, new technology can be easily absorbed. More educated managers can also introduce new techniques of production and adopt productive innovation since he can easily understand and evaluate information on new product. He is quicker in adopting new profitable processes and products because the pay-off may be greater than the risk involved and he is less likely to make mistakes. Educated persons can take advantage of available technology and thus be more productive.

The education industry also benefits through improved knowledge of the secondary school teachers as a result of human capacity building organised for them in Osun State University. In Osun state, the human capital programme has brought innovations and effective use of new technologies in agriculture. Fish ponds have been highly innovated and the use of modern technology has evolved. It has been empirically proved that incentives to invest in technology and human capital development are interdependent (Senker and Senker, 1994; Rios-Rull et al, 1996). In addition, it has been discovered that, additional years of schooling by workers, all things being equal, will reduce the probability of business closure. Education improves access to debt capital which explains the survival of small businesses. This is seen in Fadama training programme and establishment of Farmers' Training Institute at Ede. The quantity of labour supplied is dictated by rational choice of workers between leisure and work. Through the training provided by government and micro-credit made available, workers have been able to devote more time to work thereby increasing the nation's output. The producers in industries and workers alike are always interested in maximising profits and the competitive workings of the market ensure that payment corresponds with work done. Thus, workers want to work more ours and employers want to employ more workers once each worker adds more to revenue than is added to cost. The quality of labour services has been improved through various training and workshops organised in various ministries (e.g. agriculture, education), and local governments since quality is determined by past investment in human capital. Thus, behaviour in firms concerning pattern of human capital accumulation, is satisfactory.

Empirical Evidence

A survey of effect of human capital formation and workers' job performance was carried out in government agencies and two industries: one manufacturing (OlaOluwa Aina Wire Industry) and Agricultural Industries using farmers sent to Songhai by Osun State

Government and others. The survey revealed that 50% of the respondents have engaged in skill training programmes in agriculture and other industries, 23% in computer training while the remaining 24% in other areas like communication training programme, interpersonal etc. The result revealed that the human capital formation programmes in Osun State have been of immense value to beneficiaries in such areas as: creativity, innovation, satisfaction, interpersonal relation, functional expertise, compensation, customer services, obtaining result, Analytical thinking, Teamwork, leadership, strategic leadership, Adaptability, self development.

Presentation of Results

Table 1 (a) **: Summary of Regression Analysis of Survey from Government Agencies, Ola Oluwa Aina Wire Industry and Songhai farmers.**

Dependent Variables Programme →	**Computer Training**		**Team Building Training**		**Interpersonal Training**		**Communication Skill Training**	
Independent Variables ↓								
Impact of the programmes on workers job performance effectiveness in (constant)	Beta	t 0.148	Beta	t -2.068	Beta	t 0.185	Beta	t 9.544
Creativity	0.100	1.45	0.337	6.269	0.069	1.200	0.636	-17.827
Innovation	0.448	7.306	0.164	1.913	-0.083	-0.902	0.345	6.064
Satisfaction			-0.296	-3.510	-0.445	-4.937	0.141	2.520
Adaptability	0.142	2.073	0.132	2.212	0.428	6.713	-0.044	-1.119
Strategic Leadership	-0.097	-1.201	0.431	5.424	0.562	6.621	0.230	-4.362
Teamwork	-0.553	-4.842	0.277	2.654	0.658	5.918	0.525	7.588
Staff Development	0.546	4.626	0.175	1.614	-0.195	-1.688	-0.201	-2.794
Sum of Squares	47.35		45.34		43.33		47.52	

Source: Compile from Computer SPSS result

Table 1 (b): Summary of Regression Analysis of Survey from Government Agencies OlaOluwa Aina Wire Industry and Songhai farmers.

Dependent Variable **Independent Variables** ↓	**Labour-Management related Skill Training (the Programme)**

Impact of the programmes on workers job performance effectiveness in (Constant)	B -4.794	Beta
Creativity	1.544	1.34
Innovation	-4.410	0.00
Adaptability	-0.558	-1.020
Strategic Leadership	0.672	1.098
Teamwork	0.434	-0.800
Ability to Listening	0.698	0.698
Customer Service	1.832	1.832
Obtaining Result	0.892	1.531
Mentoring	0.411	0.738
Leadership	0.161	-0.207
Functional Expertise	0.683	0.946

Source: Compile from Computer SPSS result

Discussion of Findings

The results of the impact of various human capital development programmes like Computer Training Programme, Team Building Training, Conflict Management Training, Interpersonal Training, Communication Skill Training, and Labour –management related Skill Training on workers job performance effectiveness in such areas as Creativity, Innovation, Adaptability, Strategic Leadership, Teamwork, Ability to Listening, Customer Service, Mentoring, Leadership, Functional Expertise and Staff Development are presented in table1 above. The computer training has significant effect on innovation ($t=7.306$, $P<0.05$) adaptability ($t=2.073$, $P<0.05$), staff development ($t=4.626$, $P<0.05$) but a negative significant effect on teamwork ($t=-4.842$, $P<0.05$) and strategic leadership ($t=-1.201$,$P<0.05$). The order of impact of the dependent variables on the independent variables for computer is staff development (Beta=0.546, $P<0.05$), innovation, adaptability, creativity teamwork and strategic leadership. This shows that Computer training brings new ideas into the economy since the most important point of influence on the people is innovation and staff development. Team building training programme also has significant effect on almost all the factors creativity($t=6.269$,$P<0.05$) strategic leadership($t=5.424$,$P<0.05$), teamwork ($t=2.654$,$P<0.05$), adaptability and innovation but negative significant effect on satisfaction. The importance of the independent variables on team building training programme is: strategic leadership (Beta=0.431,$P<0.05$), creativity, team staff development, innovation and adaptability (Beta=0.132,$P<0.05$).

Furthermore, Interpersonal training programme has significant effect on adaptability ($t=6.710$, $P<0.05$)strategic leadership ($t=6.621$,$P<0.05$)and teamwork, but negative significant effect on satisfaction ($t=-4.937$,$P<0.05$). The important variables arranged in order are teamwork (Beta=0.658,$P<0.05$), strategic leadership, adaptability, creativity but of negative impact are satisfaction, staff development, and innovation(Beta=-0.083,$P<0.05$). In addition, Communication skill training equally has significant effect on teamwork

(t=7.588,P<0.05), innovation, satisfaction(t=2.520,P<0.05) but others are negative like creativity, strategic leadership and staff development but in order teamwork, innovation satisfaction but other negative are creativity, strategic leadership. However, Labour-Management related Skill training impact more on creativity (Beta=1.34,P<0.05) and strategic leadership (Beta=1.098,P<0.05) and customer services (Beta=1.832,P<0.05). The study confirmed that spending of the government on service delivery is not a waste but of great importance on staff effectiveness in performance of their job. The paper however, recommended that the programmes should be well organized to go round all workers for sustainable development.

CONCLUSION

The findings of the study had established the importance of human capital formation in workers performance, relationship and productivity at work. The service delivery function of the government should be promoted and supported by all as a contribution to economic growth and subsequent development. It should then be the concern of the government that as much resources as possible are devoted to such programmes.

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Appendix 1: Farmer Education and Farmer Productivity

	Year	**Estimated percentage increase in annual farm output due to 4years of primary education rather than none**

	With complementary input	
Brazil (Garibaldi)	**1970**	**18.4**
Brazil (Rescride)	**1969**	**4.0**
Brazil (Taquari)	1970	**22.1**
Brazil (Vicosa)	**1969**	**9.3**
Columbia (Chinchina)	1969	-0.8
Columbia (Espinal)	**1969**	**24.4**
Kenya	**1970-72**	**6.9**
Malaysia	1973	20.4
Nepal (wheat)	1968-69	20.4
Korea, Rep. of	1973	9.1
Average (unweighted)		13.2
	Without complementary input	
Brazil (Garibaldi)	**1970**	**10.8**
Brazil (Garibaldi)	**1969**	**-3.6**
Brazil (Garibaldi)	**1970**	**6.0**
Brazil (Garibaldi)	**1969**	**-7.2**
Columbia (Chinchina)	**1969**	12.4
Columbia (Chinchina)	**1969**	12.5
Greece	**1969**	25.9
Average (unweighted)	**1963**	8.1

Source: World Bank (1980b), p. 48 in Psacharopoulos and Woodhall, 1997 *Education for development:An analysis of investment choices* The World Bank, Oxford University Press