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APPRENTICESHIP TRAINING SYSTEM FOR DEVELOPMENT OF WORKFORCE IN WOODWORK INDUSTRIES FOR DEVELOPING ECONOMIES

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Abstract

The paper discussed apprenticeship training system in the development of workforce for woodwork industries in developing economies. It explains the meaning of apprenticeship, vocational training, training and workforce. Paper equally discussed the types of apprenticeship training system, influence of apprenticeship training on industry and education, workforce development, needs for apprenticeship training in workforce development and techniques adopted in apprentice training system. The paper further explains the operational workforce planning, economic development and apprenticeship training for workforce and economic development. The paper recommends that government through Nigerian Association of engineering craftsmen (NAEC) and industrial training fund (ITF) should set up work standard and techniques that need to be adopted in training workforce through apprentice for industries. seminars and workshop should be organised for master craftsmen and apprentice on how to keep up to date of their job so as to cope with challenges faced in discharging their works by industries.

Introduction

In recent years, the debate on the knowledge economy has drawn more attention to vocational education. Vocational education is seen as a means of providing a second chance to secondary school early-completers, offering an alternate to college or university education, and combating youth unemployment and poverty. In the course of history, vocational training came about through participation. Preparation for work and adult life happened by interaction, not through training in separate specific institutions. The reason according to Harness (2004) was that most young people took on the tasks of their parents, when production remained stable over generations, all they needed to know was what their parents knew-how to till and irrigate the soil; how to feed the herd; how to stitch a dress; where to fish and hunt. Sons for example, learned the arts of farming from their fathers by a routine association with their work. Apparently, on-the-job was predominantly the system of mastering the arts or techniques of job operation by youths. The facts remain that parents wanted to secure the survival of their offspring. For instance a father whose occupation was weaving would stress the importance of this job to the son. In every society knowledge is power, but as long as the knowledge needed remained local and specific, it could be transferred directly from parent to child. In many countries, so-called on-the-job training is still the predominant method of educating the young. (Okorie, 2000)

The fundamental change in modes of education has come about as a result of changes in modes of production, rather than inheriting skills, it became more valuable to specialise and learn a particular trade, and such skills could only be learned from masters of that trade, who were not always the parents. When skills and tools became the basis of life time careers, they also became an impetus for social organization. Craftsmen and artisans in woodwork need knowledge that is not only relevant today but also durable for tomorrow. As a substitute for family training in which a father trained the son on the job, a more efficient system called apprenticeship come into existence. There is a growing recognition that globalization has a social dimension that requires a social response. Education and training are components to both the economic and social response to globalization. However, education and training cannot alone address this challenge, but should go hand- in- hand with economic, employment and other policies to establish, in an equitable manner, the new knowledge and skills-based society in the global economy (Salami, 2009).

It has been recognised that in a time of continuous economic, social and technology change, skills and knowledge become quickly out-of-date. Therefore, people who have not been able to benefit from formal education and training must be given opportunities to acquire new skills and knowledge that will give them a second chance in life and work. It is in response to this challenge that apprentice training is presented in developing workforce for woodwork industries and commerce.

Woodwork involves the application of scientific knowledge and skill in the design, selection of materials, construction, assembling and fastening two or more pieces of wood together. Woodwork is one of the construction trades offered in Nigeria
The trade theory and workshop practice cover the practice, industrial training components and small woodwork trades. in the technical colleges is expected to design, construct service and repair any fault to the conventional woodwork in the building structure to the design and construction specification.

A national curriculum is adopted in all technical colleges accredited by NBTE. The programmes in technical colleges are offered at two levels leading to the award of National Technical Certificate (NTC) and Advanced National Technical Certificate (ANTC) for craftsmen and Master craftsmen respectively. The curriculum for woodwork trades in the technical colleges is developed to offer a complete secondary education in general education subject in addition to occupational area. The Federal Government of Nigeria (FGN, 2004) pointed out that the main feature of the curricular activities for technical colleges shall be structured in foundation and trade modules; the curriculum for each trade shall consists of general education, theory and related courses, workshop practice, industrial training components and small business management and entrepreneurial training. The trade theory and workshop practice cover the major carpentry work, their design, construction and principle of operation.

Meaning of Apprenticeship, Vocational Training, Training and Workforce

Technical education, vocational, apprenticeship, training and workforce have been variously explained by a number of writers; however, an attempt is made to describe these concepts in the sense in which these concepts are used. Apprenticeship refers to the acquisition of vocational skills through work under the supervision of established practitioners. It is an arrangement under which an individual bonds himself/herself to serve and to learn a skill or an array of skills related to an occupation from a master (who covenant to teach his trade or calling to an apprentice) an apprentice is one who is willing, desirous to learn a trade and is placed under the directives of a master. Apprenticeship according to Okorie (2000) is a procedure by which young persons acquire skills necessary to be proficient in a trade, crafts, arts, or profession under tutelage of a master practitioner. The person who is interested in a trade is sent to an expert whom the people will serve and in the process learns the trade. Apprentice system also involves an experienced worker signing a contract to teach a broad range of skills he has to trainee. It is very valuable substitute for family training in which a father trains a son on the job. The period of training is often as long as five years. By this method, the experienced worker receives the services of an apprentice.

Vocational training: is the term characterized by non-existence of any written curriculum and structure. It is designed to provide the necessary training for semi-skilled or skilled craftsman in processing, production, assembling, servicing or maintenance. Vocational training is usually conducted by private or vocational schools intended to develop specific skills. A great success of vocational workers in the trade depends on the knowledge and understanding of the technical information used on the job. The important components of vocational training are also becoming general or theoretical, because the content of knowledge in everything we are producing is increasing. Hence, the divide between academic and vocational training is becoming more indistinct. The trainees in vocational training require not only skills that are immediately applicable to work, but also knowledge base that will enable recipients to adapt as product and processing change.

Training: is learning aimed directly at enabling a person or a group to acquire particular area of competence that can be immediately put to use at work. Training is concerned with acquisition of knowledge (facts, theory, concepts) attitudes (values, styles, beliefs) and skills (how-to-do-it) to enable individual perform their specific tasks or current jobs to the required level of competence (Enemali, 2010). It is the education that is regarded as a direct preparation for a particular kind of occupation. The purpose of training in the workplace is to enable the individual employee gain the knowledge and skills required to become proficient in undertaking a particular activity or range of activities. Training has a vocational purpose, and it can occur both off-the-job or on-the-job. Training is a means towards an end. The end being improvement in the organisation's ability to meet its goals, it must be emphasised that the purpose of training is to shape or reshape the behaviour pattern of an individual. The desired behaviour is brought about through learning. Consequently, the basic function of trainer is to provide and manage experience in which learning can take place. The management of learning is concerned with the technology (process, skills, methods, techniques and equipment) used in producing desirable behaviour patterns. Putting succinctly, training is a formal procedure used by an industry to facilitate employee's skills towards their set goals and objectives. Training should be provided so that the country can advance towards satisfying its workforce needs.
Types of Apprenticeship Training Required in Woodwork trades

Apprenticeship is among the most common method of vocational training in Nigeria today. It is an organised system for providing young peoples with the manipulative skills and technical knowledge needed for competent performance in skilled occupations. In view of technological changes in the country, the concept of apprenticeship has become vital as many modern applicable trades now exist alongside those old trades that have survived despite changes in techniques and knowledge required, both industry and private individuals make use of the apprenticeship system.

The first type of apprentice system according to Alison and Lorna (2003) is one in which industries provides for the education of the apprentice in both the classroom and workshop. The programme usually involves cooperation among school, labour and management, since the apprentice learns the skills of the craftsman on-the-job work experiences and the related information in the classroom. For example some industries provide training rooms in which a number of apprentices work for a period of up to two years or more after which they are placed in various departments of the organisation. Some industries even have special schools for the training of their worker. Also, on-the-job practical training is provided by the firms, and students spend one or two days per week in school learning theory and basic subjects in some countries(europe) while, in others (Norway) they combine the school based model (first two years) and the apprenticeship model (later two years). It is generally recognised that schools are better suited to provide broad theoretical knowledge whereas firms are better suited to provide specialised and practical training. It is observed that in countries with a strong apprenticeship system, youth unemployment tends to be at lower rate. Hence, the increasing importance attached to work experience but after factors can explain the difference: the activity rate among youth, the proportion of part-time worker and of course, and the dynamics of the economy.

Influence of Apprenticeship Training on Wood Industries and Education

The relationship between training and industry are reciprocal, and have consequences for the structure of both institutions. On one hand, there are the demands of industries for trained workers, or for those sufficiently well educated to be suitable for appropriate training; on the other hand, industry itself has a vocational training system, including apprenticeship and on-the-job training schemes of various kinds (Okoro, 1999). For individual, there is the half-way stage between being a trainees and a worker that is implicit in the provision by some employers of day-release. One of the most obvious ways in which industry affects the training is in the choice of vocational subjects in schools and the ways in which these are taught. Employers want a convenient method of sorting out suitable applicants for jobs. Student’s interest and aptitudes were encouraged in the light of opportunities of local employment.

One question that may come to mind is the quality and amount of training that should be provided by firms and how much the industry should be providing. Specific training for a single job peculiar to the work and process of the firms is usually regarded as the responsibility of industry. But it is the opinion that general education and vocational training should be given outside the industry. Olabiyi (2005) opined that the size of industry determines whether vocational training can be provided. For instance in large industry work based schemes are feasible, but smaller industry without the necessary manpower and facilities are forced to rely on externally based arrangements. The system in the country is moving towards having a labour force containing a broad stratum of semi-skilled workers doing varied work, and trained technical employees. It is believed that apprentice training for the mass of workers will have to be increasingly on the model of semi-skilled technician. The increasing
displacement and occupational mobility of labour brought about by the introduction of new machines and techniques have special consequences for the training of employees. To invest too heavily in a specialist may give man capabilities that are so specific to one job that he is unable to undertake another job without retraining. Also, another link between vocational training and industry is the tendency for large companies to encourage their senior employees to send their children to public schools some firms such could also establish insurance scheme to help pay school fees. Industries can also provide closed scholarships for employee's children. Industries are also encouraging the study of science and technology with less emphasis on social status and more on technical vocational education.

Workforce development in Woodwork Industries

This is an approach that attempts to enhance economic stability and prosperity of a nation by focusing on people rather than businesses. It is essentially a human resources strategy. Workforce development in wood trades has evolved from a problem-focused approach, addressing issues such as low-skilled workers or the need for more competent employees in a particular industry or organisation, to a holistic approach considering participants' many barriers and the overall needs of the country. Today workforce development often is seen as a solution to issues of social equity. Workforce development has historically been found in two forms: place-based strategies that attempt to address the needs of people living in a particular neighborhood, or sector-based strategies that focus on matching workers' skills to needs in an industry already present in the region, such as healthcare or manufacturing.

Some contemporary workforce development programs according to Olaitan (1996) attempt to combine elements of both approaches, linking employment training with other government programs and community resources to provide twist services. However, recent efforts view workforce development in a more positive light. Economic developers use workforce development as a way to increase equity among population of a state. Rural residents may not have access to equal education opportunities, and workforce development programs can increase their skill level so that they can compete with their mates for high-paying jobs. Workforce development has also expanded beyond the notion of employment or vocational training. Workforce development today often takes a more holistic approach, addressing issues such as poor transportation to jobs. Programs to train workers are often part of a network of other human service or community opportunities.

Nigeria government according to Olaitan, Nwachukwu, Igbo, Onyemachi and Ekong (1999) demonstrated growing importance of the workforce development concept in the political ground. The government establishes National Manpower Board (NMB) and other agencies like Industrial Training Fund (ITF); the Nigeria Council for Management Development and Training (NCMD); Administrative Staff College of Nigeria (ASCON) which brought workforce development to the forefront in states and localities across the country while highlighting the importance of the community's involvement in developing workers' skills (Alison and Lorna, 2003). State that the role of industries is also considered in some contemporary workforce development programs. Others observe that industry clusters take an economic development approach to the economy as a whole, while sector-based workforce development considers only workers. In the 1990s, sector-based workforce development programs were most commonly found in nonprofit, community-based organizations, but today they are more likely to be tied to community colleges. Additionally, sector-based programs are now more likely to be paid for by government funding rather than private donations.

Need for Apprenticeship Training in Workforce Development

The current investment programmes in the various sectors of the Nigerian economy have major implications for workforce development. The major implication is the rising demand for skilled personnel. A successful apprenticeship programmes according to Okorie (2001) influences the workforce ability to perform confidently and creditably with the will to work hard. On the economic factors, apprenticeship programme will promote commercial and industrial growth which will stimulate inventions and innovations that will in turn tend to increase demand of goods. On political sense, a stable government to assure industrial and commercial growth is also an improvement factor in the progress of technology. It is obvious that no one family is capable or the talent», capabilities and aptitudes required to satisfy all human needs. It therefore, becomes imperative that special training should be given to youths to equip them with various skills required to meet societal need and industrial development. There is need for apprentice training programme for all working ages to help meet demands for new skills and adaptation to changes in the industrial structure.

Also, an important issue of workforce development through apprentice training is to ensure that human resources are developed to such an extent that the achievement of desired rates of technological change will not be impeded through lack of workforce with suitable skills. The nations' strive for industrial development also means that more well-trained technicians, craftsmen, artisans and professionals are required to manage adequately the
Techniques Adopted in Apprentice Training

Apprenticeship programmes according to Okorie (2000) are planned on the basis of what the apprentice must do and what he must know in order to perform the job in a safe and satisfactory manner. This involves actual participation in learning activities on the job and the study of related information in the classroom or workshop. One of the first activities in planning apprentice training is the preparation of work schedule. This is usually the practice by industries whereas private individuals are guided by each day’s activities. Also, there is scarcely any formal standard for selection of apprentices in Nigeria presently. However, whatever standards that may exist are brought to the open in the course of discussing the terms of agreement. At any rate, a would be apprentice is expected to be loyal to his master, willing to learn the trade, reliable with particular reference to pilfering either money and materials belonging to his master, honest, truthful and able to get along well with people. But the criteria for selection differ with the industry, since industries are profit making entities; their ultimate aim in the selection of an apprentice is to maximize their output. For this reason, age, aptitude, education, physical fitness, good moral character, future possibilities, abilities to get along well with people, reliability and interest are taken into account before getting well with people, reliability and interest are taken into account before accepting an applicant. (Okorie, 2000)

Apprenticeship is a system of training a new generation of practitioners of a skill. Apprentices build their careers from apprenticeships. Most of their training is done while working for an employer who helps the apprentices learn their trade, in exchange for their continuing labour for an agreed period after they become skilled. Theoretical education may also be involved, informally via the workplace and/or by attending vocational schools while still being paid by the employer. A master craftsman was entitled to employ young people as an inexpensive form of labor in exchange for providing food, lodging and formal training in the craft. Most apprentices were males, but female apprentices were found in crafts such as seamstress, tailor, curtain, baker and stationer. Apprentices usually began at ten to fifteen years of age, and would live in the master craftsman’s household.

Most apprentices aspired to becoming master craftsmen themselves on completion of their contract (usually a term of seven years), but some would spend time as a journeyman and a significant proportion would never acquire their own workshop. The modern concept of an internship is similar to an apprenticeship. Universities still use apprenticeship schemes in their production of scholars: bachelors are promoted to masters and then produce a thesis under the oversight of a supervisor before the corporate body of the university recognised the achievement of the standard of a doctorate. Another view of this system is of graduate students in the role of apprentices, post-docs as journeymen, and professors as masters (Alison and Lorna, 2003). Also similar to apprenticeships are the professional development arrangements for new graduates in the professions of accountancy and the law. Workforce Planning is the industry process for ensuring that industries have suitable right to use talent to ensure future industry success. Access to talent includes considering all potential access sources (employment, contracting out, partnerships, and changing industry activities to modify the types of talent required). By talent is meant the skills, knowledge, predisposition and ability to undertake required activities including decisions making. Strategic Planning considers the business risks concerning insufficient, disrupted, mis-deployed talent on the organization’s business priorities. Workforce planning is considered an iterative discipline. The cycle of workforce planning includes filling resource requests, analyzing resource utilization, forecasting capacity, managing and identifying the resources (human) to fill that capacity, and then re-starting the cycle.

Strategic Workforce Planning is broader and longer term than operational Workforce Planning. Strategic Workforce Planning is the framework applied for Workforce Planning and Workforce Development, where the links between corporate and strategic objectives and their associated workforce implications are demonstrated. Strategic Workforce Planning should take into account the projected loss of knowledge through employee exits and the projected knowledge requirements for sustaining and progress in the business. Knowledge requirements may include technology, new skills, and new roles, documentation of key workforce intelligence or new business demands. Individual education and development is a tool and a means to an end, not the end goal itself (Elwood & James 1996). The broader
concept of national and more strategic attention to the development of human resources is beginning to emerge as newly independent countries face strong competition for their skilled professionals and the accompanying brain-drain they experience.

Operational Workforce Planning is narrower in context and shorter term than strategic Workforce Planning. Operational Workforce Planning involves the systems and processes adopted and evolved to enable strategic Workforce Planning through the production of the evidence required for executive decision-making on workforce matters. Operational Workforce Planning should initially be process based and focused on building understanding and capabilities in Workforce Planning, supported by simple tools, templates and techniques (Miranda and Keith, 2004). Once established and practiced, these tools, templates and techniques can become more sophisticated and linked to existing or new IT systems to enable Workforce Planning to be integrated into normal industry practice. One of the more restrictive and potentially dangerous assumptions is that Strategic Planning is only about talent in the form of employees. Hiring is a strategy for accessing talent and will often be the superior one. However, the use of employees to meet talent needs carries with it unique risks that can be mitigated using alternative access sourcing arrangements. Regardless of the access source used, insightful assessment of the strategy’s attendant business risk is prudent. The process for starting out Strategic Workforce Planning is linked with the organization’s strategy. This means identifying the critical talent needs that if not met can materially adversely impact business success. Once the business risks are fully appreciated then attention turns to schedule and timing. Assessing current internal capability and assessing its relative position when it will be called upon in the future. Speculating on future sourcing options and identifying the preferred sourcing option, implementation and execution follow. Attention to periodically reviewing the “sanity” of the current plan is prudent.

Economic development according to Verma and Parma (2000) is the increase in the standard of living in a nation's workforce with sustained growth from a simple, low-income economy to a modern, high-income economy. Also, if the local quality of life could be improved, economic development would be enhanced. Its scope includes the process and policies by which a nation improves the economic, political, and social well-being of its workforce. Also, economic development is the analysis of the economic development of nations. Economic development according University of Iowa’s Center for International Finance and Development is a term that economists, politicians, and others have used frequently in the 20th century. The concept, however, has been in existence in the West for centuries. Modernization, Westernization, and especially Industrialization are other terms people have used when discussing economic development.

Apprenticeship Training for Workforce in Wood Industries and Economic Development

Development is essentially about economic policies and the gains there-from. Therefore apprenticeship and economic development, involves x-ray of the economy in the present and future. The economy as we knew it, i.e. the industrial economy had its attributes. Its main characteristics were its relative stability. In those days, things did change dramatically, but they changed at a rhythm that moved with the change of generations (McLean, Osman-Gani & Cho, 2004). For example, a person who became carpenter would remain a carpenter throughout his life, and builder will remain builder throughout his life. The electrician who knows his trade could remain competitive if he, during his career, occasionally brought his skills up. Today, things have changed in more drastic ways! Thanks to technology which is changing rapidly. What was modern yesterday is obsolete today! Several years after graduation, apprentice graduates would have become obsolete. A vocational trainee, according to Enemali, (2010) who wants to be current in his field of knowledge and brings efficiency to his profession, will have to return to his area of knowledge and bring himself up to date. It is not just the rapidity of change that causes the conditions for transforming the system of education and training; but also the nature of human presence that has changed in the field of production. Technical vocational education students need to be more innovative.

Conclusion

The paper has discussed meaning of apprenticeship, vocational training, training and workforce, types of apprenticeship training, influence of apprenticeship training on industry and education, workforce development, need for apprenticeship training in workforce development, techniques adopted in apprentice training, workforce planning, strategic workforce planning, operational workforce planning, economic development and apprenticeship training for workforce and economic development, and recommended that: Government through NAEC and ITF should set up work standard and techniques that need to be adopted in training workforce through apprentice for industries. Seminars and workshop should be organised for master craftsman and apprentice on how to keep up to date of their job so as to cope with challenges facing in discharging their works by industries.
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