ABSTRACT---The informal training model of construction tradesmen in Nigeria is performing poorly. This has resulted in the shortages of operatives needed for construction works and slowed down infrastructure delivery. The present stock of tradesmen is largely ageing and have no new apprentices to mentor. Consequently, knowledge transfer is made difficult and this poses a great danger of extinction of the informal training and the supply of operatives needed for construction. This study therefore reviews the current state of the informal training model and analyses data from key stakeholders on the appropriate approaches for resolving the current challenges. The study recommends inter alia reforms in youth development policies, government interventions in skills acquisition, improved funding of informal training, re-orientation of youths on the dignity of labour, provision of incentives to attract youths and effective regulatory mechanism.

Keywords-- Informal training model, Construction, Tradesmen, Nigeria, Improvement, approaches.

1. INTRODUCTION

Human resource development has been identified as the most critical factor of economic development for any nation (Osman-Gani, 2004). The training of skilled workmen is very vital to construction processes (Jinadu, 2004:45) especially in developing nations like Nigeria where automation of construction processes is still very low. Available evidence reveals the consensus of authors on the models of workmen training; (CEDEFOP, 2008; World Bank, 2012; DFID, 2007; ILO, 2012 & Carroll, 2013).Essentially, there are three basic models of training which may be modified or adjusted as one moves from one region of the world to the other. These include the formal model (school-based), the informal model and the dual model. The International Labour Organisation (ILO, 2012) describes the informal training model, (also called the traditional apprenticeship system) as the one that operates outside of formal vocational or schooling system. It may involve a transfer of knowledge or skill within a family from father to son. It may also exist as an arrangement between a master artisan and an apprentice in which the apprentice enters into a contract with the master to learn specific skills or trade for a stated period of time, usually between three to five years and for a specified sum of money as a training fee. Ahadzie, (2009: 261) submits that in some cases apprentices may receive shelter and food during training. It is essentially on-the-job learning. This system of training is common in North Africa, Sub-Saharan African countries and also in India. In most cases there is the absence of regulatory framework and standardised certification after the training. The master artisans usually issue certificates to trainees, but these may sometimes not be formally recognised by government but very useful within the informal sector (ILO, 2012; Werner et al., 2012: 2-7).

Given the high cost of schooling and the high level of poverty in many sub-Saharan African countries; evidence shows that informal apprenticeships are estimated at between 50% to 90% of young people in countries such as Gambia, Ghana, Senegal, Madagascar, Zambia, Tanzania, Mali and Malawi (Fabienne & Jens, 2012: 7-15; Werner et al., 2012: 2-7). When compared with the school-based model, the informal training model has the advantage of being closer to the current needs of employers in the informal labour market, thus, making a substantial contribution to the local economy, which represents a large proportion of the national economy in many countries (ILO, 2012).

2. STATEMENT OF THE PROBLEM

The informal training model of construction workmen in Nigeria is currently underperforming. This has engendered the shortages of workmen for construction operations and slowed down the pace of infrastructure delivery. The present stock
of workmen is largely ageing and has no new apprentices to mentor. The informal training system consequently faces the danger of extinction if drastic and urgent measures are not taken.

An appraisal of the informal training model in Nigeria

The informal training model in Nigeria is an agreement between a master-artisan and the apprentice. The apprentice is trained for a specified craft or trade through practical experience under the supervision of the master-artisan. It is a form of on-the-job training which allows the apprentice to learn by observation and practice (Uwameyi and Iyamu, 2002: 2-4). This is a common method of training youths in trades and crafts to become empowered economically through jobs like carpentry, painting, building and decorating. However, Eneh, (2010: 49-50) laments that the youth have developed an apathy to skill acquisition as they prefer alternative approaches that will fetch quick money instead of learning a vocation. This model in Nigeria is appraised under the following sub-heading:

The training providers

The individual master artisans are the training providers in this model. According to Uwameyi and Iyamu, (2002: 5), in the traditional apprenticeship contract, a fixed fee is made payable by the apprentice to the master and in return, the apprentice is attached to the master’s shop for instance, carpentry, welding, for a stipulated training period. The master has full control of the training without any input from the government (Uwameyi and Iyamu, 2002: 5). The set-up for a training workshop is made up of the master (skilled), journeyman (semi-skilled) and the apprentice (unskilled).

Funding and training facilities

Usiwoma and Ngbor, (2005: 325-335) note that the master artisan is fully in charge of the training and any related funding in the traditional apprenticeship model. The apprentices or the parents however pay an agreed training fee to the master artisan. It could be instalmental or once and for depending on the agreement and the financial strength of the apprentices involved. The training facilities and equipment are solely provided by the master artisan. In essence, government does not provide any form of funding for the traditional apprenticeship model.

Teaching and learning methods

According to Usiwoma and Ngbor, (2005: 327) the traditional apprenticeship training is essentially an on-the-job training and the method of training is mainly by observation. The implications of this are that learning of apprentices is dependent on the flow of jobs to master. In a development where the patronage of the master’s business is low, the apprentices have nothing to learn. Some of the masters send the apprentices to work for them in their personal farms at such period. A practice which is totally unethical. There are no formal curricula of training to guide the training programme. Rather the apprentices learn from the master on the jobs at hand from clients. Omoruyi and Osunde, (2004: 24) observe that the training is essentially lacking in theoretical aspects on the explanation of principles behind operations. The educational background of most of the apprentices is limited to primary school. This situation is similar to most of the master artisans who are also from same training background. The training is described by Usiwoma and Ngbor, (2005: 327) to be purely mechanistic.

Assessment and certification procedures

The assessment of apprentices in this form of training is determined by customers or clients. The apprentices are given tasks to perform independently after reasonable length of time on the training. This is repeated more and more as the training period nears completion. The competence of the apprentice is confirmed by the assessment of the customers to the master artisans. At the end of the training, the master artisan issues an independent certificate to the apprentice. This permits him to start the operation of his own business outfit (Usiwoma and Ngbor, 2005: 327).

Training regulation and control

Government is not involved in anyway in the whole training process. Accreditation of master artisans, determining the appropriate duration for the training, prescribing training curricula, funding or supporting the apprentices, assessment and certification process and regulation of practice after graduation everything is fully in the control of individual master artisans. This development has negatively impacted on the quality of training offered and the competencies of the graduates from this system of training. The certificates offered from this type of training are not officially recognised in government and corporate circles (Omoruyi and Osunde, 2004: 33; Usiwoma and Ngbor, 2005: 328 and Eneh, 2010: 49-50).
A PESTLE analysis of contextual factors impacting on the training system

According to Downey, (2007: 3) a PESTLE analysis is a strategic analysis tool employed to determine and evaluate the key components of the macro-environment of an organisation / system and how the system interacts with these contextual factors in order to improve the systems’ efficiency. The six factors represented by the alphabets in the acronym P-E-S-T-L-E are translated as follows: P- political, E- economic, S- social, T- technological, L- Legal and E- ethical issues impacting on the operation of the system (Downey, 2007: 3). The dynamics between the training system and these contextual factors are critical to the productivity and the outputs of the system. The elements involved in each of the factors as they affect the training system are highlighted below.

The political environment in Nigeria

According to Mukoro, (2005: 3) Nigeria is a federated state with a cluster of diverse ethnic nationalities lacking the cohesive force that is needed to form a unified national ideology. Leaders struggle to take control of the centre so as to dispense privileges to their kinsmen from the same ethnic group. There is unequal distribution of political power on a regional and ethnic basis. This resulted into an unbalance socio economic development as the struggle to control the centre by ethnic leaders has degenerated into ethno-political tension. This largely accounts for the failure of many national development policies and programmes. For instance, education policies have been made only theoretically; when it comes to implementation, ethnic politics and the lack of sound political leadership and will have always hampered the implementation and progress.

In the opinion of Dike, (2012: 4) the poor political leadership is the major cause of the problems facing Nigeria. The political system lacks checks and balances to control the autocratic tendencies in government and to hold political office holders accountable for their actions. There is a lack of ethical politics and values. Corruption is, however, a greater part of the problem facing the country as it creates wide gap between the leaders and the followers, which hampers socio-economic development. Dike, (2012: 4) contends that there is also a lack of political will in the leadership to prioritise education and to especially lay appropriate emphasis on vocational education and training among youth, despite the high rate of youth unemployment in the country.

Economic environment

The World Bank, (2011) reports that the Nigeria economy is mainly dependent on crude oil; accounting for 95% of its exports. The oil boom of the 1970s which led to the neglect of its then productive agricultural sector, coupled with long period of military rule laden with corrupt practice and mismanagement of public funds. The attendant consequences range from an almost total collapse of basic infrastructure and social services, to a high level of poverty among the citizenry. Available data (NBS, 2012) reveal that the poverty level stands at 69% and unemployment rate at 21%, human development index (HDI) at 0.459, which gives the country a rank of 156 out of 187 nations. The inflation rate is 10.8%, (Global Finance, 2012; NBS, 2012). According to Neuman and Ziderman, (2003: 423) vocational training is an essential tool to reduce poverty and unemployment. It is essentially designed to develop the skills for practicing particular occupations as well as learning designed to prepare for entry or re-entry into the world of work. Oketch, (2007: 220) maintains that in most cases the learning is patterned to generally lead to direct labour market entry which is a potential strategy for addressing poverty and unemployment in society. It is pertinent to note that this philosophy is yet to be fully understood and captured in the policies and programmes of the political leadership in Nigeria. Thus, vocational colleges are neglected by successive administrations giving prime attention to general education in policies and resource allocation.

Social environment

Nigeria has a population of over 140 million and an estimated growth rate of 3.2% (Nigerian National Population Census, 2006). The World Bank, (2013) has put the latest estimate of Nigeria’s population as at July 2013 at 170 million. Consequently, Nigeria has an enormous unemployment challenge and stiff competition in the labour market. The few available job opportunities only go to the best skilled applicants; and obviously the poorly skilled artisans would remain unemployed. It is pertinent to note that despite the huge unemployment challenges confronting the nation, there is still a shortage of well skilled artisans suitable to meet the construction labour needs. For instance, Nworah, (2008: 3) maintains that there is an influx of migrant construction workmen into the country recently from the neighbouring nations. They were hired by the building contracting firms to fill the gap created by inadequate local supply of workmen.

Poor public perceptions of tradesmen

Aturu, (2011: 3) submits that there is generally a poor public perception of tradesmen and vocational education pathways. It has been considered as a career path for the less academically endowed. African Union, (2007: 23) argues...
that the public views VET as meant for the rural poor and the economically disadvantaged to learn a trade in Nigeria. This perception has been fuelled by the low academic requirements for admission and limited prospects for further education and career development. African Union, (2007: 23) further states that the worst impression is sometimes created by government that the primary objective of vocational education is to keep the dropouts off the streets. They should rather project this type of training as an effective strategy to train skilled workers for employment and for sustainable livelihoods. Dike, (2008: 3) asserts that the youth generally have poor orientation towards vocational education and skills acquisition. There is therefore an urgent need for youth re-orientation. First, through appropriate policy reforms that give due recognition to vocational education pathways; and then, through the media which is a potent tool. The religious organisations would also help in the task.

**Technological and Legal environment**

There are enormous infrastructural challenges in Nigeria. The most critical of these is the inadequate electricity supply. The equipment and tools for the training of artisans need an efficient electrical power supply to function. Given the huge population of the country and the limited power generation, which stands at 4500 Megawatts (PHCN, 2012), most households and institutions still run on generators. This practice is counter productive to the nation’s economy. The crux of the power problem is the fact that government has refused to privatise the generation and distribution of electricity despite its protracted failure to deliver. The privatisation process that started over ten years ago is yet to produce any meaningful results due to corrupt practices of the political office holders involved in the process. Another concern is the rapid changes in technology globally. This is impacting on every sector including construction. Clients’ requirements are changing fast and this requires continuous adaptation of artisan training to meet the labour market needs. Aturu (2011: 2) opines that government employment policies discriminate against vocational qualifications; this has generated unending debates and ill feelings in the society. Dike, (2006: 2) laments that the policy makers are bias against vocational training.

**Ethical factors**

According to Fatimilehin, (2010: 5) Nigeria loses a lot of money in capital flight to immigrant skilled artisans and yet there is a serious unemployment crisis within the country. This recruitment practice is unethical and negatively impacts on the national economy. The remuneration of the workmen are not standardised and as such the employers take advantage of the loopholes.

![Figure 1: Contextual factors impacting on the training system (PESTLE Model)](image)

Sources: Researcher’s construct
3. METHODOLOGY

The study employed a quantitative methodology using a structured questionnaire complemented by an in-depth review of the extant literature. Simple random sampling techniques were utilised in the questionnaire survey exercise. A sample size of 450 was taken which according to Leedy and Ormrod, (2010:213-214) is considered adequate, the population size notwithstanding. Construction professional and employers were surveyed in the study; they include builders, architects, construction managers, quantity surveyors, civil engineer, construction contractors, government institutions and agencies within South Western Nigeria.

4. FINDINGS

Respondents were asked to indicate their level of agreement with the proposed strategies for improving the informal training model. Table 1 indicates the respondent’ perceptions on the proposed strategies for improving the informal training model in terms of responses on a scale of 1 (strongly disagree) to 5 (strongly agree), and a mean score (MS) ranging between 1.00 and 5.00. It is noteworthy that all the strategies have MS > 4.20 ≤ 5.00 and an overall mean score (OMS) of 4.36 for all the proposed strategies as shown in table 1. This indicates that the respondents strongly agree with the proposed strategies for improving the informal training model of producing construction workmen. Most notable among the proposed strategies are the ones with the MS values of 4.36 and above, noting here that the OMS value is 4.36. From this result, the respondents can be deemed to agree with all of the proposed strategies shown in Table 1.

5. DISCUSSION

The mission of reviving the informal training system in order to create an adequate and sustainable future construction workmen should take off from the reforms and articulation sound youth and skills development policies. The introduction of a new skills funding regime is very crucial to achieving this task. This will facilitate the recruitment of new entrants into the training system through appropriate and adequate scholarships and other training incentives. The establishment of Skills Acquisition Fund (SAF) is advocated. SAF is an agency of government that would be saddled with the aggregation of fund from various sources and administration of same for vocation skills development. Direct government intervention in the informal training sector through the establishment of skills development centres in each the six geo-political zones of the country. These centres would complement the efforts of the master artisans in informal training delivery. The centres would also help to upgrade and prepare the master artisans for improved effectiveness in training provision. There is the need to launch aggressive media campaigns using print, electronic and social network platforms to change the negative mindset of the youth towards skills acquisition and project it as a good and desirable means of livelihood.

6. CONCLUSION

The study is aimed at appraising the informal training model of construction workmen and synthesising the most appropriate approaches for mitigating the current challenges facing the training system. The study has revealed the key factors responsible for the poor performance of the training system. It has also articulated the need for urgent reforms of youth development and skills policies. A new funding regime has been advanced as an imperative. The study has also proposed a combination of other strategic approaches for resolving the training challenges in order to boost the productivity of the Nigerian construction industry.
Table 1: Strategies for improving the informal training model

<table>
<thead>
<tr>
<th>Proposed Strategies</th>
<th>SA</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
<th>M</th>
<th>S</th>
<th>OMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish the department of skills development in each Local Government to mobilise and sensitise youth</td>
<td>0.00</td>
<td>2.21</td>
<td>4.43</td>
<td>42.44</td>
<td>50.92</td>
<td>4.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Skills Acquisition Fund (SAF) to provide training scholarships</td>
<td>0.00</td>
<td>0.37</td>
<td>5.17</td>
<td>46.86</td>
<td>47.60</td>
<td>4.42</td>
<td></td>
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<tr>
<td>Put in place an effective monitoring organ to ensure unified standard and quality</td>
<td>0.74</td>
<td>0.37</td>
<td>4.43</td>
<td>45.39</td>
<td>49.08</td>
<td>4.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourage public private partnership in training provision</td>
<td>0.00</td>
<td>1.85</td>
<td>3.32</td>
<td>47.23</td>
<td>47.60</td>
<td>4.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide incentives to attract young people to skill acquisition</td>
<td>0.00</td>
<td>1.48</td>
<td>4.80</td>
<td>47.23</td>
<td>46.49</td>
<td>4.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establish skills development centres in each major cities</td>
<td>0.74</td>
<td>1.11</td>
<td>5.17</td>
<td>45.76</td>
<td>47.23</td>
<td>4.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government direct involvement on skill acquisition programmes</td>
<td>1.11</td>
<td>1.85</td>
<td>5.19</td>
<td>42.22</td>
<td>49.63</td>
<td>4.37</td>
<td></td>
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</tr>
<tr>
<td>Reorientate the youth through the media on dignity of labour</td>
<td>0.37</td>
<td>1.10</td>
<td>5.15</td>
<td>48.53</td>
<td>44.85</td>
<td>4.36</td>
<td></td>
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</tr>
<tr>
<td>Give better recognition to informal training (apprenticeship training)</td>
<td>0.00</td>
<td>1.48</td>
<td>6.27</td>
<td>50.55</td>
<td>41.70</td>
<td>4.32</td>
<td></td>
<td></td>
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<tr>
<td>Employers should partner with government to establish artisan villages</td>
<td>0.37</td>
<td>1.85</td>
<td>6.67</td>
<td>47.78</td>
<td>43.33</td>
<td>4.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accredit trainers before engaging them</td>
<td>0.37</td>
<td>0.74</td>
<td>6.67</td>
<td>50.74</td>
<td>41.48</td>
<td>4.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reforms in the youth development policy to give priority to skills development</td>
<td>0.74</td>
<td>1.47</td>
<td>9.93</td>
<td>46.63</td>
<td>38.24</td>
<td>4.23</td>
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</tr>
</tbody>
</table>

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