Factors Influencing Human Resource Development strategies adopted by Construction Firms in Northwestern, Nigeria

Tukur Al-Mustapha¹, Aina Omotayo Olugbenga²

¹Building Technology Department, Waziri Uman Federal Polytechnic, Benin-Kebbi, Nigeria ²Department of Building, Obafemi Awolowo University, Ile-Ife, Nigeria

(Received Sep 2016, accepted Oct 2016)

ABSTRACT Construction firms are the engines that propel the construction sector of any nation's economy, and are therefore expected to vigorously develop their human resource effectively. They do this through the use of the available manpower both skilled and unskilled for the execution of major infrastructural and developmental projects within the economy. In order to effectively carry out this responsibility, construction firms are expected to be mindful on factors that may influence its HRD strategies. This study evaluates factors influencing Human Resource Development (HRD) strategies of construction firms in Northwestern, Nigeria. Simple random technique, structured questionnaire were used to collect data. A total of three hundred and ninety six (396) across construction firms, 238 questionnaires were filled and returned given 60.1% response. Factors analyses were employed for data analysis in this perspective. The result revealed that, nature of construction firms C=0.795, lack of government commitment C=0.711, lack of professional development C=0.719, absence of practical instruction in

curriculum C=0.749 and conflict of interest C=0.704 as being principal factors influencing HRD strategies adopted.

KEYWORDS: Construction firms, factor influencing Human resource development strategies, Northwestern, Nigeria.

1. Introduction

Construction industry is critical to human existence because people depend on infrastructures which are necessities of life. The general public has great expectations from the construction industry because of the continuous demand for its service and products by both individuals and corporate entities, and its relationship with the economy worldwide. The industry accounts for a significant portion of world economic activities and it is the largest world industry next to government (Nakhon and Somjintan, 2012; Stacifawn,2007; Olubodun,1985). The activities of the industry are significant to the achievement of national and socioeconomic development goals. It provides infrastructure and contributes immensely to employment, gross fixed capital formation and gross domestic products (GDP) (Ibironke, 2003; Raza, 2008). Indeed, the industry is regarded as a barometer through which the good or illhealth of the nation's economy is measured and monitored (Agunbiade, Adeniyi, Olokesusi, Olufemi and Agboola, 1995).

Construction industry is a sector of the economy that brings together different factors of production using a technical process to produce construction products or services. The traditional procurement of construction process applies and sequential approach to project development, design and construction at different stages in the construction process (Garza, 1994). This organizational and sequential process to project development characterized the industry as being complicated and challenging in nature (Storey, 1994; Vinit, Johan, Hakan and

Pontus, 2010).

Organizations worldwide (private and public) are facing increasing challenges and they exist in complex nature; the construction industry is no exception (Aidah, 2013; Evans, Pucik and Barsoux, 2002; Ofori and Chan, 2000). The construction industry represents one of the most dynamic, risky, complex, and diverse industrial environments (Alvin, 2011). Being projectbased in nature, the products are very vast and production responsibilities are divided among many participants such as Architects, Builders, Quantity Surveyors and Engineers. Each participant performs different functions belonging to different organizations with different objectives, policies and practices (Aina, Adesanya and Ojo, 2009; Pettus, 2003). Aina et al., (2009) added that participants are often freshly assembled for current project. It is volatile with peaks and falls in level of activities. The fluctuation in the market is reflected in considerable variation in number, size and types of projects undertaken by the industry over time (Turner and Keegan, 2001). This is responsible for significant variation in changing requirement of staff in terms of capability, knowledge, experience and skill profiles (Turner, 2002). In addition to these complex natures, the industry is still faced with challenges.

There are numerous challenges facing the construction industry today: economic swings, new markets emerging in the global economy, increasing competition, impact of technology, growing demand of complex infrastructure by clients, technological advancement and innovation in all forms of businesses, increasing demands from clients, customers and society (Abu Hassan, Arman, Mohamadand Nurkhuraishah, 2011; Chan, Suen and Chan, 2005; Egbu, Gaskell and Howes, 2001). Also, the solution to these kinds of problems requires specially trained personnel to be able to mitigate its various complicated dimensions. This is more pertinent because of the unstable nature of the construction industry typified by casualization of workers, workers being employed at inception of projects, and laid off at its end and many labour-only subcontractor arrangements (Loosemore, Dainty and Lingard, 2003). This makes adequate attention on HRD issues in the construction industry imperative. Therefore, the industry requires the possession of a broad range of management talents, skills and capacity for a continuous approach to problem solving within competitive environment (Aniekwu and Ozochi, 2010). According to Oladeji (2002) a dynamic organization at the competitive edge is one that is imaginative and innovative in its HRD programme providing training and education that would make its human resource productive and innovative.

HRD is part of management practices which is defined as the process of increasing the knowledge, skills and competencies of all the people in a working environment (Sriyan, 1997). In addition, Adams (1997) took a broader view of HRD as improving competence, culture and commitment which include opportunities for employees' training, re-training, career development and mentoring. The purpose of HRD is to enhance learning and high performance in work-related systems, to ensure the effective and efficient use of resources (Yuan and John, 2008), and improve organization performance (Kasimu, Rosilan and Fadhlin, 2013). According to Mathis and Jackson (2000) human resources development is progressively considered as a survival tool in a dynamic, competitive and continuously changing environment (Kasimuet al., 2013; Laundon and Laundon, 2003). Also, Malone (2004) revealed that HRD has now turned into an important factor and continues to be broadly practiced by many organizations as one of the most promising approaches for organizational success within the information age.

The foregoing issues indicate the fact that HRD is a tool for to the achievement of construction firms' core objectives. In order to effectively carry out this responsibility, construction firms are expected to be mindful on factors that may influence its HRD strategies. This study evaluates factors influencing Human Resource Development (HRD) strategies of construction firms in Northwestern, Nigeria. Hence, this study assessed the extent to which HRD strategies are practiced by construction firms in North Western Nigeria.

2. Background

Several studies have been reported in the literature on the factors working against the effective implementation of HRD strategies among construction companies, particularly in developing economies like Nigeria. First, the nature of employment in construction is a major impediment. According to Obiegbu (2003), the Nigerian construction industry is characterized by contractors, subcontractors and a large number of self-employed individuals. As apparent from research on the United Kingdom construction industry, self employment has devastating effects on levels of training and is a critical factor in explaining low levels of training in the sector (Akin, 2003). Besides, the construction industry unlike many manufacturing industries is concerned mostly with oneoff projects, thus creating retention problems and high rate of employees and apprentice turnover with consequent difficulty in training. Besides, the dominance of most of the construction markets by multinationals means that expatriates are imported to do most of the highly skilled jobs. The multinational corporations are international businesses made up of firms from a number of developed countries like the USA, the UK, China and Japan(McCourt and Derek, 2003). The main objective of these multinationals is to amass profit and repatriate same to their countries. Besides, the companies import most of their expatriate workers from their home countries and pay them heavily only to pay peanuts to their Nigerian counterparts. The implication is that most of the multinationals are not willing to provide appropriate trainings to the local workers (Mahapatro, 2010).

Additionally, the neglect of vocational education and the eventual rise of certificate syndrome have worsened effective construction personnel training in Nigeria. This trend is evident in the poor funding of vocational schools by government and lack of patronage by employers. The placing of more emphasis on academic oriented education has led to the escalating enrolment at the university level to the detriment of the institutions that train middle manpower

(Akin, 2003). These have all led to the low personnel skills in the construction industry.

The failure of the local training bodies to fill the gap has compounded the challenge. For example, the Industrial Training Fund (ITF) is the statutory body established by decree No. 47 of 1971 in Nigeria, with a mandate to raise levies to support training from all employees 'in scope' of it. However it has failed over the years in its primary purpose of initiating, improving and facilitating trainings and development of training standards for use throughout the construction industry. This is with particular emphasis on ensuring an adequately trained workforce and establishing and enhancing national training standard (Mahapatro, 2010).

The unattractive image of construction work has branded the construction industry as an institution where anybody can work. According to Pettus (2003), 3D represents an acronym for "Dirty, Difficult and Dangerous" depicting the perceived image of the construction industry. In addition, the industry suffers from an image of poor pay and working conditions and limited opportunities for career progression and poor funding, organization structure/leadership, absence of effective training framework, training facilities, among others. This has resulted in the exodus of potential workers who would have continued their trade into other sectors. Consequently, the pool of labour available at this stage is not highly skilled (Mahapatro, 2010).

HRD involves education, training and development of workforce and managers (Briscoe, 1995). HRD is effective if it closes the gap between current performance and expected future performance and also organization goals (Weil and Wooall, 2005). Amongst the functions activities of this is the identification of the needs for training and development and selecting methods and programmes suitable for these needs, plan how to implement them and finally evaluating their outcome result (McCourt and Derek, 2003), communication and information management, corporate performance, productivity, organization culture and staff turnover.

Guest (1997), argues that policies are necessary to ensure that employee performance is evaluated, which in turn ensures that the appropriate education, training and development take place. With the help of the performance appraisal reports and findings, the organization can be able to identify the effectiveness' of HRD. However, individuals themselves can help to indicate the areas requiring improvement as a result of the issues raised in the performance appraisal process and their career path needs.

Performance appraisal is a process that is carried out to enable both the individual and the organization to analyze, examine and evaluate the performance of specified objective over a period of time. This process can take up formal and informal forms (McCourt and Eldridge, 2003). The purposes of performance appraisal have been classified into two groups the developmental and administrative purposes. The developmental purposes of performance appraisal include providing performance feedback, identifying individual strength/weakness, recognizing individual performance, assisting in goal identification, evaluating goal achievement identifying individual training needs, determining organizational training needs, improving communication and allowing employees to discuss concerns. On the other hand, administrative under the developmental purposes is the purpose of performance appraisal which include but is not limited to documenting personal decisions, determining promotion candidates, determining transfers and assignments, identifying poor performance, deciding layoffs validating selection criteria, meeting legal requirements to mention a few. Obiegbu (2003) says performance appraisal can be conducted once, twice or several times a year. The frequency will be determined by the organizations depending on the resource capability and what is to be evaluated with regard to organization's objectives and strategies. There are a number of alternative sources of appraisal and these include (Aidah, 2013); Manager and supervisor, self- appraisal performance, subordinate appraisal, peer appraisal; team appraisal and customer appraisal.

It is however important to note that, if there are no proper system and plans to

deal with the findings of the performance appraisal, the expected benefits of this process for the organization may not be realized. Further still, although good performance appraisal may be good for an organization, it may be bad if not professionally handled.

Productivity improvement is a central challenge for managers in all types and sizes of organizations. It is defined as reaching the highest level of performance with the least of expenditure of resources; and also defined as ultimately the ability to produce in the desire to produce. Training offers the employees the ability to perform their work effectively and efficiently (Abiola, 2004).

The construction industry remains labour intensive (Lanford, Hancock, Fellows and Gale, 1995) in spite of technological developments, prefabrication and automation amongst other developments. It is still human resource that paradoxically spells the success or failure of companies (Katzet al., 1987). The complexity and dynamism of the construction industry's project based culture however threaten to undermine the applicability of many central tenets of the HRD strategies which have been applied successfully in more stable sectors.Garza, (1994)Huemann, keegan and Turner (2007)reported HRD in project-based companies which provide lessons for companies within this project-based industry. This challenge, however, coupled with the diverse nature of construction activities, the unique one-off nature of products, short notices of the need to execute projects, project durations, and the increasingly complex demanding from clients amongst others. According to Loosemore et al., (2003) adds to challenges in HRD within this sector. Due to these factors, there remains the need to employ 'transient' workforce who tend to be geographically dispersed. These pose challenges to the workforce: longer working days; more expense in transfers; work-life balance management; and job insecurities, amongst others. This transience arises within projects as well as at various stages of the project where different team compositions are required (Loosemore et al., 2003). Human resourcing within the industry is influenced by this transience and the tendency for projects to be executed in spite of short

notices as well as changing demands of clients with regards to quality, specifications and insecurities associated with future projects as well as its geographical location (Garza, 1994).

The devolution of the HRD responsibility, often without the requisite training or central support, is a special characteristic of HRD within the construction industry (Loosemore etal, 2003). Further, construction has been cited as a model industry in its ability to exploit the benefits of labour market flexibility in its use of peripheral and outsourcing workers (Ofori and Debrah, 1998; Wells, 1985)as a response to its operational characteristics and uniqueness. Rethinking construction, Egan (1998) identified commitment to people as a key requirement for construction improvement within the UK construction industry. Drucke and White, (1996) reported that personnel managers describe the industry as a people-oriented industry with effective teamwork, human initiative and intuition perceived as key to a competitive advantage. However, "a stubborn history of communication problems between its culturally diverse and organizationally fragmented occupational groups" in the words of (Drucke and White, 1996), has resulted in hard HR management approaches. These coupled with the shrinking of the appropriate labour market which is as a result of the image of construction work makes attraction as well as the retention of adequately skilled professionals and artisans to enhance productivity in delivery cost, time and quality, a challenge (Garza, 1994).

3. Research Methodology

The primary data for this study were collected through field work, involving the administration of a structured questionnaire to elicit information on available and categories of HR in the construction firms in Northwestern Nigeria, traditional human resources development strategies adopted by the firms. Using Purposive sampling technique, the study selected three states namely: Sokoto, Kebbi and Zamfara state from North Western Nigeria. The target population for

the study consisted of all registered construction firms in the selected states. The number of registered construction firms was obtained from the State Tender Board in each state. Twenty percent (20%) of the construction firms with offices in the three states were selected using random sampling, yielding 66 firms. In each firm, 6 staff member were selected making a total of 396 respondents; hence, a total of 396 questionnaires were administered across sampled construction firms, out of which 238 were retrieved given 60.1% responses. To this end, each of the factors was rated by respondent using a five point-likert scale as follows: "strongly agree", "agree", "disagree", "strongly disagree" and No specification with weight values 5, 4, 3, 2, and 1 respectively, factors analyses were employed to analysis data.

4. Results and Discussion

This study identified and examined the factors influencing the HRD strategies of construction firms. To this end, each of the factors were rated by respondents using a five point- Likert scale as follows: "strongly agree", "agree, disagree", "strongly disagree" and "No specification" with weight values 5, 4, 3, 2 and 1 respectively. Based on literature, there are a number of factors influencing HRD strategies; thirty of such factors were used for the survey and investigation. These 30 different factors were further classified into three groups: employee influences, organizational influences and external influences. However, the relevance and importance of these factors needed to be evaluated, hence the use of factor analysis. This would enable proper evaluation of factors influencing HRD strategies of the construction firms.

Results shows the estimates of the factors accounted for by the component. High commonalities indicated that the extracted components represent the factors well. The total column gives the Eigen values or amount of variance in the original variables accounted for by each component. The result shows that the extracted variables explain nearly 78% of the variables in the original 30 factors of HRD strategies. This has considerably reduced the complexity in the evaluation of factors influencing HRD strategies adopted by firms in the study area. After several diagnostic tests on the factors indicating HRD strategies and in-depth evaluation of each of the factors, results of the analysis (Table 1) showed the factors influencing HRD strategies adopted by firms on three different levels. For the purpose of this study, all factors with component values (C= value) of 0.500 and above were considered to be "strongly agreed" factors which greatly influence the HRD strategies adopted by the construction firms in the study area. Those influencing factors were further grouped into three (3), namely: employees influence, organizational/internal influence and external influence in Table 2.

In relation to factors under employees' influences, such factors (Table 2) are lack of professional development (C=0.719), conflict of interest (C=0.704), poor communication (C=0.600), shortage of employee with critical skill (C=0.551), and staff turnover (C=0.705). The relevant factors under organizational/internal influence category are poor organizational structure (C=0.649), absence of effective training framework (C=0.501), nature of construction firms (C=0.795), rapid changes of management structure (C=0.749), shortage of qualified teachers (C=0.579), nature of employment in the industry (C=0.555) and poor working condition (C=0.509).

The external influences that affect HRD strategies adopted were technological advancement (C=0.609), dominance of construction market by multinational corporations (C=0.701) lack of government's commitment (C=0.711), absence of practical instruction in curriculum (C=0.749), lack of commitment by professional bodies (C=0.506), little attention of clients on the importance of skilled labour in the project (C=0.587) and changes of design and environment (C=0.559). It appeared that, the study meets with the finding in literature on factors that influence HRD strategies small and medium construction firms. According to Obiegbu (2003) revealed that the nature of employment in construction firms and nature of construction firms are a major

impediment. In addition the Nigerian construction is characterized by labour subcontractors and a large number of self-employed. As apparent from research on the United Kingdom construction industry, self-employment which has devastating effect on levels of training and dominance of Multinationals Corporation is critical factors influencing HRD strategies. Also, the non permanent nature of construction projects has given room for break-up (Arkani, 2003)

Com		Initial Eige	nvalues	Extraction Sums of Squared Loadings						
pone	Total	% of	Cumulative %	Total	% of	Cumulative				
nt		Variance			Variance	%				
1	5.988	19.961	19.961	5.988	19.961	19.961				
2	3.820	12.732	32.693	3.820	12.732	32.693				
3	3.398	11.325	44.018	3.398	11.325	44.018				
4	2.248	7.493	51.511	2.248	7.493	51.511				
5	1.715	5.716	57.228	1.715	5.716	57.228				
6	1.529	5.095	62.323	1.529	5.095	62.323				
7	1.325	4.416	66.739	1.325	4.416	66.739				
8	1.167	3.889	70.628	1.167	3.889	70.628				
9	1.093	3.644	74.272	1.093	3.644	74.272				
10	1.013	3.376	77.649	1.013	3.376	77.649				
11	.914	3.045	80.694							
12	.766	2.554	83.248							
13	.692	2.306	85.554							
14	.623	2.076	87.630							
15	.579	1.930	89.559							
16	.527	1.756	91.315							
17	.474	1.579	92.894							
18	.369	1.231	94.125							
19	.302	1.006	95.131							
20	.282	.941	96.073							
21	.229	.763	96.836							
22	.198	.661	97.497							
23	.180	.600	98.097							
24	.149	.496	98.593							
25	.125	.417	99.009							
26	.095	.317	99.327							
27	.075	.251	99.578							
28	.062	.207	99.785							
29	.040	.134	99.919							
30	.024	.081	100.000							

Table 1 Total Variance Explained

Extraction Method: Principal Component Analysis.

	Component Values									
FACTORS	1	2	3	4	5	6	7	8	9	10
EMPLOYEES INFLUENCE										
Lack of professional development	Х	Х	Х	Х	х	0	х	х	х	Х
						•				
						7				
						1				
						9				
Staff turnover	0.705	Х	х	х	x	х	х	Х	х	Х
Conflict of interests	Х	Х	0.70	х	х	x	х	Х	х	х
			4							
Poor communication	0.600	Х	х	х	х	x	x	X	х	Х
Shortage of employees with critical	0.551	Х	х	х	х	x	x	X	х	Х
skills										
ORGANIZATIONAL INFLUENCE										
Nature of construction firms	Х	0.795	Х	х	х	х	х	Х	Х	Х
Rapid changes of management	Х	0.649.	х	х	x	х	х	х	х	Х
structure										
Shortage of qualified teachers	Х	0.579	х	х	x	x	х	х	х	Х
Nature of employment in the industry	0.555	Х	х	х	x	х	х	х	х	Х
Absence of effective training method	Х	0.501	х	х	x	x	х	х	х	Х
EXTERNAL INFLUENCE										
Absence of practical instruction in	Х	0.749	Х	х	х	х	X	Х	Х	Х
curriculum										
lack of government commitment	Х	0.711	х	х	х	x	х	х	х	Х
Dominance of construction market by	0.701	Х	х	х	х	x	х	х	х	Х
multinational corporations										
Poor organizational structure	Х	0.649	х	х	х	x	x	x	x	Х
Technological advancement	Х	0.609	х	x	x	x	х	х	х	Х
Little attention of clients on	Х	0.587	х	x	x	x	х	х	х	Х
importance of skilled labour										
Changes of design and environment	0.559	х	х	х	x	x	x	x	x	Х

Table 2. Component Matrix

Extraction Method: Principal Component Analysis.

5. Conclusion

Based on the findings from this study, the following conclusions were drawn. The study concluded that, number of factors influenced the HRD strategies practiced by construction firms in the study area. The most significant of these factors were: the nature of the construction industry, conflict of interests and lack of government commitment. In order to have any meaningful improvement in HRD strategies, it is recommended that, the interest of professional and government bodiesmust be resuscitated in other to provide a basic framework upon which construction firms can invest on HR and in research and development must be rigorously pursued.

References

Abiodun, E. J. A. (1999). Human Reourses Management, an overview. Concept Publication. 110-121.

Abu Hassan, A., Arman, A. R., Mohamad, N. Y., & Nurkhuraishah, A. k. (2011). Factors determining groth of companies: A study on construction companies in Malaysia. African journal of business management, 5(22), 8753-8762. doi: http://www.academicjournals. org/ AJBM DIO:10.5897/AJBM10.1142

Adamolekun, L. (1983). public Administration: Nigeria and Comparative perspective, London. Longmans.

Adams, O. A. (1997). contractor development in nigeria: perceptions of contractor and professionals construction management and economic, 15(1), 95-108.

Agunbiade, B., Adeniyi, K., Olokesusi, F., Olufemi, S., & Agboola, T. (1995). Final report on the impact of liberation policies in the Building construction industry in Nigeria NISER publication, Ibadan, Nigeria.

Aidah, N. (2013). effects of training on employee performance Evidence from Uganda. (M. Sc.), Vaasan Ammatikorkeakoulu University of applied science.

Aina, Adesanya, & Ojo. (2009). Delay problems in construction projects in Nigeria: a theoretical focus on causes and avoidance strategies. Journal of environmental design and management, 11(2), 40-46.

Akin, A. (2003). performance evaluation of the building construction personnel. Paper presented at the Annual conference and general meeting of the NIOB at the women's development centre, Abuja.

Alvin, V. (2011). Factors in human resource management the influence construction company's performance in Indoneia.

Aniekwu, N., & Ozochi, A. (2010). Restructuring education and human - resource development in the Nigerian construction industry. journal of science and technology education research, 1(5), 92-98. doi: http://www.academicjournals.org/JSTER

Atiomo, A. (2000). Human Resource Management.

Ayoola, M. O. (2014). Capacity building and job performance of employees in university of technology in southwestern Nigeria. (M. Phil), Obafemi Awolowo University, Ile- Ife, Osun state, Nigeria.

Chan, Suen, & Chan. (2005). An integrated project extranet design phototype: e-AEC for architects, engineers and contractors in hong kong mainland china construction research, 6(2), 253-271. Drucker, P. F. (1993). The post capitalist society, Butterwoth- heinemann London, Egbu, C O, 2005. Knowledge management as a driver for innovation, knowled management in construction. Oxford, U K Blackwell publishing.

Dunn, J. D., & Stephens, E. C. (1972). management of personnel: New York: McGraw Hill. 121.

Edwin, B., & flippo. (1998). Principles of personnel management, McGraw-Hill, Tokyo, . 209.

Egbu, C., Gaskell, C., & Howes, J. (2001). The role of organizational culture and motivation in the effective utilisation of information technology for team working in construction. Paper presented at the proceedings of the 17th Annual conference of the Association of researchers in construction management (ARCOM): 91-100; 5-7 september,, at university of Salford, UK.

Evans, P., Pucik, V., & Barsoux, J. L. (2002). the global challenge: Frame work for international Human resource management. Boston: Mcgraw-Hill.

Fagbola, T. O. (2012). Manpower development and efficiency of employees in the food and beverage indutry in south western nigeria. (M. Phil), Obafemi Awolowo University Ile- Ife Osun State nigeria.

Gann, D. M., & Salter, A. (1998). Learning and innovation management in project-based, service- enhanced firms, . international journal of of innovation management,, 2(4), 431-454.

Griffis, F. H., Hogan, D. B., & Li, W. (1995). An Analysis of the impact of using three dimensional computer models in the management of construction. construction industry institute (cii) Austin. Tx, Usa, Research report, 106-111.

Ibironke, T. O. (2003). construction finance technical books (first edition TIMLAB ed.).

Kasimu, M. A., Rosilan, A., & Fadhlin, A. (2013). The significance of knowledge management in civil Engineering construction firms in Nigeria. Journal of Applied Sciences Research, 9(6), 3484-3491.

Laundon, K. C., & Laundon, P. L. (2003). Essentials of management information systems, managingthe digital firms, (fifth ed.). New jersey: prentice-hall,Englewood cliffs.

Loosemore, D., Dainty, A., & Lingard, H. (2003). Human resource management in construction projects: Strategic and operational approches.

Mahapatro, B. M. (2010). Human resource management, New Age publisher, New Delhi.

Malkani, Z. A. K., & Kambekar, A. R. (2013). Management of human Resource in construction industry. international journal of Engineering research and technology, 6(3), 353-362. doi: http://www.irphouse.com

Malone, T. W. (2004). The future of work. boston Harvard business school press.

Mathis, S. R., & Jackson, J. H. (2000). Human Resource Management. South Western College publishers.

McCourt, W., & Derek, E. (2003). global human resource management: managing people in developing transitional countries. Cheltenham. UK: Edward Elgar.

Mclagan, P. A. (1989). Models for HRD practice. . Training and Development journal, 4(9), 49-59.

Mclean, G. N., & Mclean, L. (2001). If we can't define HRD in one country, how can we define it international contex? Human resources Development International, 4(3), 313-326.

Mohamed, S. A.-w., Andrew, R. J., Dainty, A., & Stephen, G. I. (2011). A review of the relationship between skills and productivity in construction.

Nakhon, K., & Somjintan, K. (2012). current practices of human resource management (HRM) in Thai construction industry: A Risk and opportunity perspective. society of interdisciplinary business research, 1(1). doi: www.sibresearch.org

Obiegbu, M. (2003). Education and training of Builders Towards proactive Roles in the 21st century Building Industry in Nigeria. seminar for lecturers of Building programme in Tertiary Institutions. Nigerian Institute of Building (NIOB), 13th December.

Ofori, G., & Chan, S. (2000). Growth paths of construction Enterprises in Singapore, Eng. Construct. Archtect. manage.,, 7(3):307-321, 1980-1998.

Ogunlana, S., Thapa, S., & Dey, P. K. (2002). Assessing engineering training needs, methods and effectiveness In: SO Ogunlana(Eds): Training for construction Industry Development., Rotterdamm:CIB Publication, 94-102.

Oladeji, S. O. (2002). Approaches to Human Resources Devlopment. Paper presented at the training programme on management of human resources, , Ibadan, Nigeria.

Olubodun, O. (1985). "low productivity of the Nigeria construction workers". Unpublished seminar paper, Building Department, OAU Ile-Ife. 1-21.

Pettus. (2003). Growth from chaos:Developing your firm' resources to achieve profitability without cost cutting.

Pettus, M. L. (2003). Growth from Chaos: Developing Your Firm' Resources to Achieve profitability without cost cutting.

Raza, A. K. (2008). Role of construction sector in economic growth:Empirical Evidence from Pakistan economy. Paper presented at the First international conference on construction in developing countries "Advancing and intergrating construction education, research & practice" August 4-5 2008,.

Smith, P. J. (2002). Modern learning methods rhetoric and reality - further to sadler-smith et al .. person rev. 31(1), 103-113.

Sriyan, d. s. (1997). priority for employers. Paper presented at the International Labour Office workshop on Employees' Organization, Asia-pacific.

Stacifawn, B. (2007). Recruitment and selection in construction. (master of science), University of florider.

Stephen, g. (2011). human resource development.

Storey, D. J. (1994). understanding the small business sector. London:Routledge.

Tabassi, A. A., & Barker, A. A. H. (2009). Training, Motivation and Performance: The Case Of human resource Management in Construction Projects in Mashhad, Iran. . international journal of project management, 27, 471-480.

Tabassi, A. A., Ramli, M., & Bakar, A. H. A. (2011). Training, Motivation and Teamwork improvement: The case of construction firms. African journal of business management, 5(14), 5627-5636.

Torringoton, D., Hall, L., & Taylor, S. (2005). human resources development (6th Ed. ed.). London: prentice Hall.

Torringoton, D., & Tan, C. H. (1998). Human resource management for Southeast Asia and Hong Kong prentice hall.

Turner. (2002). Strategic Human Resource Forcasting. London: CIPD: .

Turner, & Keegan, A. (2001). Mechanisms of Governance in project- based Organizations: The Role of the broker and Steward. European Management Journal, 19(3), 254-267.

Vinit, P., Johan, J., Hakan, Y., & Pontus, B. (2010). Barriers to information and communication technology adoption in small firms. Paper presented at the swedish entrepreneurship forum, pontus Braunerhjelm.

Yuan, C., & John, K. (2008). The mechnisms of information communication on construction sites newcastle university. Forum Ejournal.