

Full Length Research Paper

The influence of work environment on workers productivity: A case of selected oil and gas industry in Lagos, Nigeria

Akinyele Samuel Taiwo

School of Business, Covenant University, Ota, Ogun State, Nigeria. E-mail: akinsamolu2000@yahoo.com.

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Many enterprises limit their productivity enhancement of employees to the acquisition of skills. However, about 86% of productivity problems reside in the work environment of organizations. The work environment has effect on the performance of employees. The type of work environment in which employees operate determines the way in which such enterprises prosper. The objective of the study is to analyze the impact of work environment on future worker's productivity. Investigation revealed that factors in both the external and internal work environment as well as employment policies as they currently obtain are unfavorable to the enhancement of labour productivity. It is therefore imperative for governments at the federal and state levels to explore ways of improving and updating infrastructural facilities in order to make work environment more conducive for enhancement of labour productivity. Similarly, job and organizationally related factors and employment policies must be looked into by the respective employers for possible reviews so as to make them more favourable and thereby challenge workers to be more productive. Primary data were used for this study that was generated through structured questionnaires with close ended questions. T-test was used to test the research hypotheses. The respondents were randomly chosen from four selected oil and gas industry in Lagos metropolis. The results of T-test indicate that employee productivity problems are within the work environment. Conducive work environment stimulates creativity of workers. Improvement in work environment and bad working conditions contribute to low productivity of employees.

Key words: Workers, productivity, infrastructural facilities, environment, employment policies.

INTRODUCTION

The sensitivity of petroleum resource is vividly indicated in the fact that it has continued to remain as the goose that lay the golden eggs for the Nigerian economy as well as the supreme foreign exchange earner, contributing nearly 80% of government revenues and helps the development of Nigeria's infrastructures and other industries. Thus, it is not an overstatement to say that petroleum production is as critical to Nigeria as oxygen is to life. However, due largely to the highly technical nature of exploration and production, the sector depends substantially on imported technology, equipment and manpower for its operations. Consequently, in view of the critical significance of the sector to the nation's economy, and its capacity to generate far-reaching multiplier economic benefits, the grooming of vastly skilled indigenous manpower to participate keenly in the activities of the sector to redress the foreign dominance becomes a desideratum (Baker, 2006). The rapid

development of an indigenous technical workforce has become more compelling than ever before against the background of projected imminent injection of massive investment in the sector. With a current production capacity of about 30 million barrels per day (bpd), Nigeria plans to grow its capacity to about 40 million bpd by 2010. In order to achieve these targets, the federal government and other key stakeholders in the oil sector are going to invest an unprecedented \$54 million in the sector within the next two years (Adidu and Oghene, 2005; Agbadudu and Ogundipe, 2000). Already, Nigeria is the leading oil and gas producer in Africa, currently ranked the seventh highest in the world. Though estimates of Nigeria's proven oil reserve are put at about 35.2 billion barrels, the federal government of Nigeria has plans to mobilize the country's potentials to raise it to 40 billion barrels by 2010 (Agbebaku et al., 2005).

The performance of a corporate organization, which

determines its survival and growth, depends to a large extent on the productivity of its workforce. Infact, the wealth of the nation as well as socio-economic well being of its people depends on the effectiveness and efficiency of its various subcomponents. Labour is generally regarded as the most dynamic of all the factors that are employed for the creation of wealth, having the potential to energize and serve as catalyst to all the other resources (Yesufu, 2000). Productivity is thus of fundamental importance to the individual worker of whatever status, to the organization whether commercial or not and to the national economy at large and accordingly therefore, to the upliftment of the welfare of the citizen and the reduction if not total eradication of mass poverty (Yesufu, 2000; Akinyele, 2007). Since then, the concern for productivity especially in the public sector has increased with intensity, culminating to the establishment of the national productivity center under the Federal Ministry of Employment, Labour and Productivity (Osoba, 1999; Umeh and Usman, 2000). The primary duty of the National Productivity Center, as spelt out by Decree No. 7 of the 1987, is to stimulate productivity consciousness among Nigerian workers and to develop and supply the right technical solutions to productivity problems across all sectors of the national economy. It is against this background that the federal government of Nigeria has restored to the introduction of welfare packages as a source of motivational strategy for higher performance and higher productivity and improvement in government establishments (Eghe, 2001; Choudhary, 2004; Allport, 1999).

Productivity in an organization can, in principle, be influenced by a wide range of internal and external variables, which may be categorized as:

1. General factors: Among which are climate, geographic distribution of raw materials, fiscal and credit policies, adequacy of public utilities and infrastructural facilities, etc.
2. Organizational and Technical factors: Namely, the degree of integration, percentage of capacity, size and stability of production, etc.
3. Human factors: Which include labour- management relations, social and psychological conditions of work, wage incentives, physical fatigue, trade union practices, etc.

Although attempts have been made in the past to tackle this problem of low productivity which has been a long standing concern in Nigeria, though establishment of such bureaucratic institutions as the Productivity, Prices and Income Board (PPIB), the problem remained more or less unabated. It is not in doubt that Nigeria is richly and extra-ordinarily endowed with all the three basic principal factors needed for enhancement of productivity, namely, capital, human and mineral resources, it has been unable to take advantage of these factors to obtain at least a

corresponding level of outputs consequent to which the country, several years since it attained political independence, is yet poverty ridden. The basis of a developing economy and associated standard of living, according to Yesufu (2000) is rising efficiency, which is implied by productivity. It thus becomes pertinent to ascertain the extent to which the organizational environment accounts for the rather low productivity of the Nigerian workers. Consequently, this research has attempted to provide answers to the following key questions:

1. What are the possible effects of some identified factors in the external work environment on workers' productivity?
2. To what extent are factors in the internal work environment perceived as having adverse effects on productivity?
3. How important are some specifically named facilities in the work environment to enhancing workers' productivity?
4. To what extent do factors in the worker's place of residence have effect on his productivity?

Brenner (2004) asserted that the ability of employees within an organization to share knowledge throughout the system depends on the conditions of their work environment. However, the survey revealed that corporate executives from various industries disclosed that many organizations do not fully leverage their physical work environment to enable increase collaboration, innovation and improve work effectiveness. It is also observed that employees tend to be more productive in a well-facilitated work environment. Moreso, the quality of comfort derivable from work environment determines the level of satisfaction and productivity of workers. Workers productivity cannot be optimal, if the conditions of work environment are not favourable.

Improved work environment will enhance employee productivity. For example, standard health facilities will protect the life of the workers. In case of any hazard on the job they have some assurance of some income. This assured income tends to minimize any inhibitory fears of the workers devoting themselves fully to their work.

The performance of a corporate organization, which determines its survival and growth, depends to a large extent on the productivity of its workforce. Infact, the wealth of a nation as well as socioeconomic well being of its people depends on the effectiveness and efficiency of its various sub-components. Labour is generally regarded as the most dynamic of all the factors that are employed for the creation of wealth, having the potential to energise and serve as catalyst to the other resources (Yesufu, 2000). Productivity is thus of fundamental importance to the individual worker of what ever status, to the organization whether commercial or not and to the national economy at large and accordingly therefore, to the upliftment of the welfare of the citizen and the

reduction if not total eradication of mass poverty (Yesufu, 2000; Akinyele, 2005; Akinyele, 2007).

Productivity implies reaching the highest level of performance with the least expenditure of resources. The foregoing are in consonance with the common approach to productivity which according to Adamu (1991), is a type of relation between output and input. The relations as Adamu states further, compares outputs with one or more inputs, often factors inputs like labour and capital to define some meaningful measures like:

1. The work environment as to be safe and healthy that is, no hazards and no undue risks.
2. The opportunity to use talents effectively to acquire new skills and knowledge for advancement must be ever present.
3. The employees at all levels have occasions to develop their capabilities through problem solving and planning.
4. The social climate of the organization is free from prejudice and rigid classifications.
5. The job does not take excess time and energy from other aspects of life.

The theme of this research lies on the fact that both management and workers of enterprises are less considerate of work environment as having a great influence on productivity of workers as resulting from workers' negative attitude to work while the workers' view of low productivity may stem from poor pay system, absence of fringe benefits, inappropriate leadership style, wrong job location, unfavourable organizational change etc.

Consequently, the issue arises as to which type of work environment be maintained by an enterprise in order to enhance workers productivity. The research will centre on work environment and its influence on workers productivity. Conducive work environment eradicates the problem of psychological pains of the workers, stress, ill health of workers etc.

The objective of the research is to analyze the impact of workers environment on workers' productivity with a view to evaluating the existing physical work environment and to identify the type of work environment that will improve workers productivity.

Review of literature

Declining productivity in Nigeria has become a persistent concern of economic and business analysts over the past five years and as the decline continues so does the search for solutions (Bowman, 1994; Burnstein and Fisk, 2003; Balk, 2003). Dozens of organizations have attempted to solve their productivity problems by application of various innovative management techniques (Balas, 2004). Some private sector agencies have implemented incentive programs in order to influence and increase productivity. Many of the motivational tools used in

private industry are not available to managers who work in the public sector. An employee working in the public sector knows that salaries are not individually negotiated.

In the literature, it is posited that the industrial revolution and the movement away from agrarian society was the pivotal point in history that instigated the concern with workers output (Kartzell and Yanalorich, 2000). The major schools of thought, namely, Fredrick W. Taylor and the Human Relations Movement have impinged on productivity since the mid-nineteenth century. Among a number of factors that were since that time believed to have some influence on productivity are (a) the growth of organized labour unions, (b) technological advancement and (c) the changing role of government. For instance, government was assumed to have some influence on productivity, albeit often indirect through labour legislation, consumer protection regulations and even tax regulations, which may redirect the way in which factors of production are allocated.

The need to provide a safe work environment for employees has had a long history in human resource management. In Beer et al. (1994) model of human resource management, it is acknowledged that work systems cannot only affect commitment, competence, cost effectiveness and congruence but also have long term consequence for workers' well being, there is some evidence to indicate that work systems designs may have effects on physical health, mental health and longevity of life itself. Conducive work environment ensures the well-being of employees which invariably will enable them exert themselves to their roles with all vigour that may translate to higher productivity (Akinyele, 2007).

Longman dictionary of contemporary English (2003) defines work environment as "all the situation, events, people etc that influence the way in which people live or work" while "work" is defined as "a job you are paid to do or an activity that you do regularly to earn money".

Accordingly, Kohun (1992), defines work environment as "an entirety" which comprises the totality of forces, actions and other influential factors that are currently and, or potentially contending with the employee's activities and performance. Work environment is the sum of the interrelationship that exists within the employees and between the employees and the environment in which the employees work. Brenner (2004) was of the opinion that "the ability to share knowledge throughout organizations depends on how the work environment is designed to enable organizations to utilize work environment as if it were an asset. This helps organizations to improve effectiveness and allow employees to benefit from collective knowledge". In addition, Brenner (2004) argued that work environment designed to suit employee's satisfaction and free flow of exchange of ideas is a better medium of motivating employees towards higher productivity. Work environment when appropriately designed, motivates employees toward higher productivity.

To attain the objective, management of any organization

must identify those factors both in employment situation and in the psychology of the workers that best motivated them and to see to the provision of such factors in order to boost productivity. The work environment according to Opperman (2002) is a composite of three major sub-environments viz: the technical environment, the human environment and the organizational environment. Technical environment refers to tools, equipment, technological infrastructure and other physical or technical elements. This environment creates elements that enable employees perform their respective responsibilities and activities. The human environment refers to peers, others with whom employees relates, team and work groups, interactional issues, the leadership and management. Human environment is designed in such a manner that encourages informal interaction in the work place so that the opportunity to share knowledge and exchange ideas could be enhanced. This is a basis to attain maximum productivity. Organizational environment include, systems, procedures, practices, values and philosophies. Management has control over organizational environment. For instance, measurement system where people are rewarded on quantity hence workers will have little interest in helping those workers who are trying to improve quality. Issues of organizational environment influence employee's productivity.

There are two types of work environment according to Kyko (2005), which are conducive and toxic work environments. Conducive work environment gives pleasurable experience to employees and enable them to actualize their abilities and behavior. This type of environment also reinforces self-actualizing behaviours. For instance, an irresponsible employee can change into a responsible employee in conducive work environment. Toxic work environment gives unpleasant experiences and at the same time, deactualize employees' behavior. This environment reinforces low self-actualizing behaviours and it leads to the development of negative traits of the employees' behavior. In toxic work environment, responsible and sensible employee can change into irrational and irresponsible employee as a survival strategy.

Kyko (2005) identified six factors which contribute to a toxic work environment hence contributing to low productivity of workers. The factors are: opaque management, biased boss, company's policies, working conditions, interpersonal relationship and pay.

Mali (1978) sees productivity as "the measure of how resources are brought together in organizations and utilized for accomplishing a set of results. Productivity is reaching the highest level of performance with least expenditure of resources. The term employee productivity is commonly used to refer to the volume of goods and services produced or rendered per employee within some specific unit of time (year, month, week, day or hour). Productivity is seen as the power of employees, that is, ability of employee to turnout used values (goods and

services) which can be normal at a given state, technique and organization (Lambert, 2000; Nwachukwu, 1987). Lambert (2005) was able to show in his findings that "it is the number of management functions in the work environment which appear to have been the key factor inhibiting higher productivity". Accordingly, he identified the management functions as: provision of adequate fringe benefits, supervision, work method and organization. Nwachukwu (1987) also identified, supervision, subordinates, the environment and outcome as the major variables that influence productivity. According to Cecunc (2004), productivity is referred to as "an index expressed as the ratio of output over input (Wehrich and Koontz, 1994; Bedejan, 1987). Lambert (2005) opines that "labour productivity is rarely measured directly but inferred from changes in employees' attitude and behaviour such as organizational commitment, organizational citizenship behaviour and job satisfaction".

Work environment includes some factors, which either contributes positively or negatively to achieving maximum employee productivity (Elywood, 1999). We cannot measure the effectiveness of a job design without the knowledge of the working environment in which the design is place it is part of total picture. The factors which either contributes positively or negatively to employee productivity are: temperature, humidity and air flow, noise, lighting, employee personal aspects, contaminants and hazards in the working environment, types of sub-environment.

Brenner (2004) in a work place index survey conducted for steel case itemized what employees want and perceived to help their productivity in the work environment as better lighting, more elbow room, creative methods for assessing space, personalization, more impromptu meeting for work well done and involvement in the decision that impact their day to day lives at work. An organization that want to ensure employee productivity improvements will exploit those tools used for managing the work environment in which such employees work. An effective work environment management entails making work environment attractive, creative, comfortable, satisfactory and motivating to employees so as to give employees a sense of pride and purpose in what they do. The following are some of the tools used to manage work environment to improve productivity. Noise control, contaminants and hazard control, enhancing friendly and encouraging human environment, job fit, rewards, feedback, work environment modeling, creating qualitative work life concepts and making physical working conditions favourable (Cecunc, 2004; Opperman, 2002; Elywood, 1999).

Brenner (2004) argued for modeling of work environment to improve employees' productivity calls for management responsibilities of holding everything together, improving motivation and creating commitment in the work environment. He postulated the PRIDE model, which managers can use in order to be successful in

Table 1. Nature of work environment.

| Variables | Number of respondent (F) | Percentage |
|--------------------------------|--------------------------|---------------|
| Very conducive and comfortable | 13 | 22.31 |
| Conducive | 4 | 6.56 |
| Fairly conducive | 18 | 29.51 |
| Poor | 20 | 32.79 |
| Very poor | 6 | 9.84 |
| Total | 62 | 100.00 |

Source: field survey, 2008.

modeling the work environment. Providing a work environment that simultaneously achieves company goals and employees' goal involves motivating such work environment with quality of work life. This involves giving employees opportunity for their personal growth, achievement, responsibility, recognition and reward so as to get high quality productivity from employees (Cecunc, 2004). According to Yesufu (1984), the nature of the physical condition under which employees work is important to output. Offices and factories that are too hot and ill-ventilated are debilitating to effort. There should be enough supply of good protective clothing, drinking water, rest rooms, toilets, first aids facilities etc. Both management and employees should be safety conscious at all times and minimum of requirement of the factories act must be respected.

This push for more productivity from public sector agencies is not a new phenomenon. These factors may be important; yet, believing that the attitudes and management styles of mid-level managers are what really influence employee productivity. One of the primary tasks of the managers is to motivate people in the organization to perform at high levels (Steers and Porter, 2000; Caldwell, 2001; Christesen, 2002). It is generally agreed that the more accurately managers can answer the question of what motivates their employees, the more effective they will be at maximizing productivity, enhancing productivity, enhancing performance and advancing the notion of organizational accountability (Chernis and Kane, 2004). There have actually been a number of public sectors productivity movements. The beginning of the last century was characterized by an important productivity interest that diminished as the second world war approached. This movement towards a more productive public sector can be categorized into four period: Government by the efficient (1900 - 1940), government by administrators (1940 - 1970), government by the managers (1970 - 1980) and government by the private sector (1980 - 1990) (Public productivity and management review, 1990).

METHODOLOGY

Four hypotheses were postulated for this study and are as follows:

H₁: Bad work environment can contribute to low productivity of employees.

H₂: Improvement in work environment can lead to higher productivity of employees.

H₃: Conducive work environment stimulates creativity of employees.

H₄: Employee productivity problems are within the work environment.

The data used for the study were primary data generated through structured questionnaires. The questions in the questionnaires were closed ended questions. The response format employed a 4 point Likert scale. Eighty five were administered to four different Nigeria oil and gas industry in Lagos-Nigeria. The industries include Texaco plc, Agip plc, Oando plc and Total plc. Sixty one questionnaires were filled and returned. The breakdowns of the returned questionnaire are; Texaco plc 14 questionnaires were returned. Agip plc 16 questionnaires were returned and Oando plc 19 questionnaires were returned and Total plc 12 questionnaires were returned. The organizations and the staff respondent was randomly chosen. Frequencies were used to examine the pattern of response to each variable under investigation. T- test was used to test the formulated hypothesis.

ANALYSIS AND DISCUSSION

The returned questionnaires were 61 and the percentage is 67% which is high enough to enable valid analysis. From the returned questionnaires respondents described their work environment differently as shown in Table 1.

As shown in Table 1, 21.31% of the respondents were of the view that their work environment is very conducive and comfortable. This means that this group of respondents experiences all the conveniences of work environment, which enhance their productivity. 6.56% of the respondents were of the opinion that their work environment is conducive, 29.51% of the respondents were of the view that their work environment is fairly conducive. The sum of the respondents for poor and very poor work environment is 42.63%. These categories of respondents perceive their work environment as being poor as to enhance their productivity. The experience of the respondents about their work environment varies from excitement to unhappiness as shown in Table 2.

Table 2, revealed that 38% of the respondents experience liveliness, excitement and motivation in their work environment while 62.30% of the respondents express