
DETERMINANT OF STAFF PRODUCTIVITY IN NIGERIA: EVIDENCE FROM INDUSTRIAL GOODS FIRM

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Abstract

The study was designed to examine the determinant of staff productivity in industrial goods firm in Nigeria. The evaluative survey research design was adopted. Four (4) research questions and four (4) hypotheses guided the study. The population of the study comprised staff of listed industrial goods firms in Nigeria. A purposive sample of 200 respondents was drawn from both senior and junior staff of the selected listed companies. A researcher developed instrument was used for data collection. Mean and standard deviation were used to answer the research questions while t-test and ANOVA were used to test the hypotheses at 0.05 level of significance. The findings revealed among others that staff training and educational attainment, work environment, job satisfaction and motivation impact positively staff productivity, though there exists significant mean difference with respect to the effect of environment and job stress. Consequently, it was recommended that adequate and feasible provision should be made for staff training since this will enhance productivity. Also enhanced remuneration/compensation package should be arranged while working condition can be improved upon.

Keywords: Staff productivity, training, education, working condition, job stress

Introduction

Industrial growth, sustenance and profitability are indices of development. In the increasingly competitive global business environment, organizations are compelled to invest in capacity development in order to be more cost effective, innovative, and generally more competitive than other industry players (Awan & Tahir, 2015). Some of the sources of competitive advantage for these organizations would include financial strength, tangible resources such as production facilities, locational advantages, intangible resources such as patents and technical knowhow, and the employees or staff. Moreso an abundance of resources such as infrastructures or physical facilities are made meaningless without the support of qualified human resources that directly impact the continuity of the business operations. The employees and staff is arguably the most strategic of these resources that the organization could possess. This is because it is the employee or the staff that determines how efficiently any of the other resources can be utilized by the organization (Mokaya, 2013). By implication, an organization could have excellent resources but would still be uncompetitive if it fails to properly invest in ensuring it attracts and retains the best and most skilful human resources (Njururi, 2016).

Human resources are the sources of achieving competitive advantage because of its capability to convert the other resources (money, machine, methods and material) into output.

Work itself is a natural phenomenon which is fundamental to human existence moreso the environment in which man works is a major factor to be considered in man's reaction to work for existence and survival in that some environments are conducive while some are not. As the world shift further into a knowledge-base economy that relies majorly on information, knowledge and high level skills, human capital will become progressively more central to business organizations across the globe. The work force of any organization represents its employees or staff. Ideally, every employee and staff in any organization is expected to continuously render productive service to the organization and remain in that organization until retirement. However, in reality, this is not so. Reason being that some staffs' productivity are below expectation while some perform above expectation due to some reasons yet to unravel.

Human resources tend to be inimitable because of the natural characteristic of human beings where each person will tend to have a unique set of capabilities that makes them stand out. As opposed to material resources that can be replicated or substituted, the human characteristics are unique to each person (Oswald, 2012). This means that if an organization manages to create a system in which it can bring out the best out of its employees, its human resources become an important source of competitive advantage for it.

Employees are as important organizational asset as other non-human assets and thus firms invest considerable capital in the human resources. According to Ongori (2007) the value of employees to an organization is a very crucial element in organizations success. This value is intangible and cannot be easily replicated; therefore, it becomes very important that managers should manage employee productivity for the benefit of the organization.

Productivity is the ratio of outputs to inputs. It refers to the volume of output produced from a given volume of inputs or resources. If the firm becomes more productive, then it has become more efficient, since productivity is an efficiency measure (Samnani & Singh, 2014).

Effort is an important economic variable. If effort is a constant, then there is little to investigate. This is unlikely to be the case, however. Surely everyone knows somebody who

cares little about their job and will do the least amount of work they can get away with. Equally, everyone knows a perfectionist who throws themselves into a job and will not rest until a task is completed. It is therefore implied that individual can choose their own effort levels but that their effort level can be influenced to increase productivity.

Such an idea can be traced back to the old Marxian principle that firms buy units of labour time, rather than units of labour effort. Thus, an employment contract will typically detail the number of hours worked, but it will not describe how hard the employees have to work in that time. There are factors that motivate a worker to put in his or her best until the job is done and maximum output is achieved. Within these extremes there is likely to be a whole range of possible effort choices.

This is the reason behind this study to investigate the determinants of such choices and to explore different factors that determine an employees' productivity level with reference to industrial goods companies in Nigeria.

Therefore, the aim of this study is to examine the determinants of staff productivity among Nigeria industrial goods firms in Nigeria.

Statement of the Problem

At the national level, productivity is one of the main determinants of economic growth and progress. Therefore, it is crucial for the business management to determine and control the factors affecting productivity. In the highly competitive and fast changing world of technology, policy-makers and managers consider productivity as a key element for success. There are various ways of increasing productivity depending on the conditions and culture of each organization. The most important factors that drive productivity are human resources and personnel. Human resources are the most dignified, important, and valuable organizational asset. Successful management of human resources is the key to economic, social, and cultural development. This requires the employment and ongoing training of committed and proficient human resources. Well-trained human resources can compensate for material losses by making the right decisions at the right time. In fact, they always create value and wealth for the organization and add to its capitals.

Some of the strategies that determines are productivity also include: paying attention to the personnel, optimal use of talents, motivating the personnel, and technology. These strategies must be carefully identified and prioritized with respect to the conditions of the organization and the need for improvement in any of these areas. In addition, level of academic / technical education/past training, past experience/age, overall competence and skills, motivation and morale, individual culture / attitude, individuals creativity, absenteeism, overall job satisfaction, overall communal feeling / belongingness, overall appreciation. Some managers give priority to production needs over other needs of the personnel, while others value human resources more than production. Both of these approaches are inadequate. High productivity is achieved only when these groups receive equal attention. Valuing the efforts of the personnel and showing interest in their welfare, wishes, and needs will improve their performance and subsequently improve productivity.

Jeni, Momotaj and L-Amin (2021) carried out a study using primary data through Likert scale structured questionnaire with as sample size of 60 employees as respondent from five banks. The study adopted descriptive design and diagnostic hypothesis test of normalcy carried out. The result showed independent variable (training and development) has great effect the dependent variable (employee performance and productivity) and recommended that the

banks in region set aside resources for regular employees training to improve identified gap in skill, knowledge etc. to adapt to dynamic job environment. The research of Salah (2016) investigated the effect training and development on employee productivity in transportation companies in the private sector in the southern region of Jordan and using structured questionnaire as data collection from 188 respondents, deploying both inferential and descriptive statistics. The study revealed the independent variable (training and development) related positively with productivity and concluded training and development have a significant effect on employee productivity. Hence, recommended a diligently prepared development program be put in place all employees

Hassan, Mugambi and Waiganjo (2017), study examined training on performance in hotel in large hotels in Kenya using 146 respondents. Inferential statistics was done. The study found that training significantly affected employees' performance of hotels. Training linked to the market needs to benefit the industry. The study differs from the scope of the current study.

Habib, Hossain and Essien (2016), study evaluated the effect of training on employees' performance in Nigeria using case study approach. Findings showed significant relationship between training and employees performance of Sheraton hotel and Resort hotel in Lagos. Also, findings revealed to a great extent that effective training will at various mixes contribute to the motivation of employees' and enhance employees' performance in the Nigerian hotel industry. The provision of incentives to employees is encouraged in the interest of the organisation and society alike. The major weakness of the study is that it was limited to only two hotels in Lagos. The current study intends to extend the research to the determinants of staff productivity among Nigeria industrial goods firms in Nigeria.

Objectives of the study

The general objective of this study is to examine determinants of staff productivity in Nigeria industrial goods sector. The specific objectives include to:

1. Investigate how staff training and educational attainment improve productivity of industrial goods firms in Nigeria.
2. Ascertain the effect of work environment and job stress on productivity of industrial goods firms in Nigeria.
3. Investigate the influence of staff job satisfaction and motivation on productivity of industrial goods firms in Nigeria.
4. Determine the influence of leadership style and organizational policy on productivity of industrial goods firms in Nigeria.

Research Questions

The following research questions were raised to address the objectives above

1. To what extent does a staff training and educational attainment improve productivity of industrial goods firms in Nigeria?
2. How does work environment and job stress affect productivity of industrial goods firms in Nigeria?
3. How does staff job satisfaction and motivation influence productivity of industrial goods firms in Nigeria?
4. How does leadership style and organizational policy affect productivity of industrial goods sector in Nigeria?

Research Hypotheses

The following hypotheses were formulated as a tentative answer to the research questions above.

1. Staff training and educational attainment have no significant effect on productivity of industrial goods firms in Nigeria.
2. Work environment and job stress has no significant effect on productivity of industrial goods firms in Nigeria.
3. Staff job satisfaction and motivation has no significant effect on productivity of industrial goods firms in Nigeria.
4. Leadership style and organizational policy has no significant effect on productivity of industrial goods firms in Nigeria.

LITERATURE REVIEW

Productivity

Productivity is the ratio of outputs to inputs. It refers to the volume of output produced from a given volume of inputs or resources. If the firm becomes more productive, then it has become more efficient, since productivity is an efficiency measure (Samnani & Singh, 2014 quoted by Njururi, 2016). It is a measure of the efficiency of production. Productivity has many benefits at various levels. It refers to the volume of output produced from a given volume of inputs or resources. If the firm becomes more productive, then it has become more efficient, since productivity is an efficiency measure. It is a measure of the efficiency of production (Hanaysha, 2016). There are simple factors that need to be involved for a workforce to have productivity. Moreover, employees need to feel that they are part of the company and not just workers in the workplace (Skare, Kostelic & Jozicic, 2013). By giving them incentives and shares in the company, they will want to work harder and produce work of the highest quality. Their creativity levels will increase and ideas on how to grow the business will be numerous and productivity in the workplace will increase. As is widely known, the customer is king and when the customers are happy, there is more productivity. It is achievable to have a productive workplace where the business grows in a way in which the workers, clients and management are satisfied. It is a measure of the efficiency of production. Productivity has many benefits at various levels. Productivity growth is important to the firm because more real income means that the firm can meet its (perhaps growing) obligations to customers, suppliers, workers, shareholders, and governments (taxes and regulation), and still remain competitive or even improve its competitiveness in the market place (Chen, Hannon, Laing, Kohn, Clark, Pritchard & Harris, 2015). In a nutshell, high productivity levels translate into lower unit costs and this is why Onyije (2015) terms productivity as one of the major drivers of success in the organization. It is growing the business in a way where the employees and the employers are satisfied.

Satisfaction with nonmaterial job attributes affects perceived job productivity (Taylor, Steel, & Simon, 2013). This result is very humbling to hear since more people value money than any other things, yet still, some individual's stay simple.

Productivity in the workplace is the key to any business succeeding (Ajala, 2012). Any effective and successful business or company understands the importance of productivity in the workplace. Being productive can help the firm increase and utilize the capacity of the human resources it has. Most productive companies have happy and healthy employees, which are the basis of a successful organization. These are some of the factors evaluated while seeking to understand factors that contribute to productivity in Nigeria industrial goods firms.

Staff Training and educational attainment

Training is the process that enables people to acquire new knowledge, learn new skills and performs tasks differently and better than before (Eagan, & Garvey, 2015). Its objectives are to teach employees how to perform particular activities or a specific job. Chadwick, Way, Kerr and Thacker (2013) stated that, smooth and efficient running of any organization depends directly on how well employees are equipped with relevant skills. New employees will need some form of training before taking up their jobs while older employees will need some of training to keep them abased of technology development. Therefore employees must be from time to time trained to perform better in their present positions and to prepare them for transfer, promotion and introduction of new technology and ways of doing things. Kumar, Webber and Perry (2012) terms employee training as a learning experience where it seeks to effect a permanent change in employees that improves job performance. Thus training involves changing in skills, knowledge, altitudes or behaviour. This may mean changing what employees know, how they work, or their attitude towards their jobs, coworkers, managers and the organization. It has been estimated for instance that Kenyan business firms alone spend billions each year on formal course and training programs to develop workers skills (Larson, Fox, Rosen, Rohr & Shaffer, 2013). For a successful safety programmed, safety education and training are necessary for personnel in the factory as well as in whole organization. Education is the process of depositing knowledge into passive students. This is a process of equipping a learner with adequate skills to accomplish a given task (Moreland, 2013). It also ensures safe work performance on part of every employee by developing his skill in the use and operating safe equipment. During training, employees are taught the principles of first aid, how to wisely use the tools and machines how to take precautions to prevent fire accident, how to use hand tools properly and how to protect their eyes and other parts of the body. Every organization displays safety posters to promote safety publicity (Grolleau, Mzoughi, & Pekovic, 2015). Employees in the factory may be shown videos regarding safety and are asked to suggest some safety schemes. Employees training roles to improve skills or add to the existing level of knowledge so that the employee is well equip to do his present job, or to prepare him for higher position with increased responsibility (Patel& Conklin, 2012). Education frequently takes place under the guidance of others, but may also be autodidactic. Any experience that has a formative effect on the way one thinks, feels, or acts may be considered educational. However, individual growth is not an end in itself therefore organizational growth should be meshed with individual growth.

Staff Work Environment and Job Stress

Employees need to have essential tools to carry out their duties. This consists of appropriate equipment, machinery and computer technology and also sufficient lighting, working space and ergonomically-correct seating (Akhtar, Boustani, Tsivrikos & Chamorro-Premuzic, 2015). Poor work conditions owing to physical components leads to low production levels and an overall job dissatisfaction. Work environments that are not safe, like below standards work environments have a wide range of implications. Consequently, work environment can be described as either good or bad. A good environment is a place where the workers are at ease and feel appreciated; they are often happier and more productive at work. A bad work environment is a work environment where the worker is unsettled, feeling unappreciated and working in fear. Shamsuzzoha and Shumon (2010) argue that if the physical condition in the place of work is deficient of crucial amenities, it could discourage employees and disrupt staff productivity. Inadequate provision of basic amenities such as health care services, furniture, suitable lighting, and proper ventilation can cause employees to begin to seek for alternative employment where the physical condition is more conducive and this scenario

adversely affects their productivity. Another work environment factor that can hinder staff productivity is job stress. Moreover, when the work setting is uncondusive to man, the end result is impaired physical, psychological and physiological burdens on the man which will invariably manifest in form of stress. On the basis of research evidences on all the stress experienced in individuals' life, job stress is the leading causes of stress which is domiciled at the workplace. Shukla and Sinha (2013) observe that in the banking sector, technological advancement and globalization have increased time pressure; extreme work demand, role conflicts and problematic customer relationship which are causes of stress.

Job stress is produced when one cannot properly coordinate available resources and job demands with personal abilities (Iskandar, Ahmad & Martua, 2014). They are of the view that job stress is derived from a situation of job environment that poses threat to an individual. Some companies may demand achieving a certain level of work, while their employees may be unable to cope with the given tasks. It is said that the demand exceeds the capacity of an individual which simultaneously fails to satisfy the top management. Job stress is produced when one cannot properly coordinate available resources and job demands with personal abilities (Iskandar, Ahmad & Martua, 2014). However, the perception of job stress varies from nation to nation, including Nigeria and that may also be affected by cultural differences, thus there is need to investigate this phenomenon.

Job Satisfaction and Motivation

Job satisfaction is the positive psychological or work-related outcomes or achievements that a person gathers as the outcome of work experiences. Wallelegn (2013) defined Job satisfaction as the extent to which people enjoy their jobs. Hence, like employees of other organizations, bank employees also give different evaluation of the job they do. He further argued that the outcome of the evaluation reveals whether the job is satisfying or not. Job satisfaction is a positive emotional state resulting from the appraisal of one's job or reaction to work experience, how workers feel about their jobs, aspects of their jobs, and work situations. The actual job done by employees and the nature of the job given to the employee has a direct influence on job satisfaction. Job satisfaction is the key to attract and maintain the talented individual in an organization. However, the level of job satisfaction can be measured from the range of satisfaction to dissatisfaction. The positive attitude will lead to the increasing level of job satisfaction among the employees. In contrast, dissatisfaction will cause arising of many issues such as disloyalty, inefficiency and ineffectiveness output, low productivity and others. It is very important for every company to analyze the factors that might affect the job satisfaction and morale of their employees. Employees who are satisfied with their current workplaces will be more supportive and participative either in decision making process or in the improvement for the quality or productivity of the organization. Salary, promotion, fair allocation of rewards, supervisor's attitude and other aspects will affect the employees' satisfaction. The higher the job satisfaction possessed by employees, the higher the effort employees put in their jobs. Iskandar, Ahmad and Martua (2014) quoting DeCenzo and Robbins (1996) defined a motivation as the willingness or desire to do something, conditioned by the activity or the ability to satisfy some needs. The studies on employees' motivation have widely been practiced in today's enterprises across all sectors, regardless of their size. Those enterprises realized that the actions of motivating their employees are crucial in order to achieve the organizations' goals. The motivated employees relate to the manners of self-satisfaction, self-fulfillment and commitment that are expected to produce better quality of work and oblige to the organizations' policies which will extensively materialize efficiencies and competitive advantage. Motivation increases the job involvement by making the work more meaningful and interesting as well as the fact that it

keeps the employees more productive and improves their subsequent job performance. The employee motivation is obviously important. In fact, it is one of the most important and essential factors for the achievement of employees, and ultimately the organizational targets and goals (Berman, Bowman, West & Wart, 2010).

Leadership Style and Organizational Policy

The nature of interrelationship between employees, staff and management represents another factor that affects employees' productivity. If the interrelationship between employees and the management is poor, employees will not hesitate to quit for another employment at any available opportunity (Shukla & Sinha, 2013) and this affects their productivity. Conflict with managers and supervisors is a frequent factor that indirectly affect employees' productivity. A feeling that management in general, or a particular manager and team leader is treating employees unjustly or is bullying his staff can lead to a low rate of production as the staff will be mentally derailed towards productivity. Shamsuzzoha and Shumon (2010) argue that it is somewhat unusual for employees to quit employments in which they are happy and having good interpersonal relationship, even if offered another employment with a higher salary elsewhere. This is because employer-employees relationship plays a very important role on employees' productivity.

Another factor that affects the staff productivity is organizational policy. When the organizational policy is not friendly to the staff, their productivity strength will be reduced. Employees' productivity tends to decrease if there are no career prospects in the employment. Discontent with career prospects is a foremost cause of low productivity rate. Increasing number of employees desire to grow in their careers and need to move forward, and there is little or nothing employers can do about it, particularly in today's organization and promotion prospects being so limited.

Theoretical Framework

HUMAN CAPITAL THEORY

This study was anchored on human capital theory. The theory was propounded by Schultz, (1961) and developed extensively by Becker, (1964) who classified expenditures on human capital as an investment rather than consumption. This theory assumes that education or training increases useful knowledge and skills that enhances performance level of employees (Becker, 1964). Thus, the theory is relevant to this study.

Equity theory

This theory is propounded by John Stacey Adams, a workplace and behavioural psychologist who developed his job motivation theory in 1963. The theory states that employee motivation at work is driven largely by their sense of fairness. That people compare their inputs (the work they do, the money they contribute, the effort they put forth) to their outcomes (the reward they receive, such as salary, benefit and recognition). Therefore, this theory is also relevant to this study.

Methodology

This study adopted descriptive survey design. According to Nworgu (2015), a survey research design is one in which a group of people or items is studied by collecting and analysing data from only a few people or items considered to be representative of the entire

group. This design, therefore, was considered appropriate for the study as it collected data on the opinions of staff of listed industrial goods firms in Nigeria.

The population used for the study consists of staff of listed industrial goods firms in Nigeria. As at the time of carrying out this research, the total industrial companies listed on Nigeria Stock Exchange are thirteen (13), and they include Austin Laz & Company Plc, Berger Paints Plc, Beta Glass Plc, BUA Cement Plc, CAP Plc; CUTIX Plc, Dangote Cement Plc, Greif Nigeria Plc, Lafarge Africa Plc; Meyer Plc, Notore Chemical Industry Plc, Portland Paints & Products Nigeria Plc, And Premier Paints Plc.

Through a convenient sample five (5) of the companies in the study population were selected to constitute in the study sample (representing well over 30% of the study population). Thus the sample companies include Austin Laz & Company Plc, Berger Paints Plc, BUA Plc, Dangote Cement Plc, and Portland Paints & Products Nigeria Plc. The sampled companies were selected because they appear to have more production, gain the patronage of consumers better than most others and this can further be supported by the volume of their shares usually traded on the stock market, other reason was the availability of the branches in the south-south region of the country.

The data for the study were collected using a structured questionnaire. The instrument was constructed using a four-point rating scale of Strongly Agreed (SA) 4 points, Agreed (A) 3 points, Disagreed (D) 2 points and Strongly Disagreed (SD) 1 point.

Two experts in the Department of Vocational and Technical Education in Federal College of Education (Tech), Asaba Affiliated to University of Benin validated the questionnaire.

The survey was pilot-tested with 40 employees of large scale businesses in Edo and Delta States who were selected at convenience. The pilot test helped improve the instrument and check the reliability of the constructs used. The questionnaire has a reliability index of 0.73, which was considered adequate for the study. The internal consistency was determined using Cronbach Alpha coefficient. Copies of the questionnaire were administered and collected by the researchers and assistants.

Using purposive sampling, the research team selected 200 respondents (40 participants per company) who are the workers of the selected industrial goods companies in Nigeria.

200 questionnaires were distributed out of which 181 were filled and returned within the stipulated time. Only 174 questionnaires were found usable/qualified for the purpose of analysis of the study.

Bench mark mean response for deciding on the research questions was determined by adding the weight assigned to each response and dividing by 4 ($4+3+2+1=10/4= 2.50$). Items with mean response of 2.50 and above were considered as 'Agreed' and items with mean response of 2.49 and below were regarded as 'Disagreed'.

The t-test was used to test null hypotheses 3, while One-way Analysis of Variance (ANOVA) was used to test null hypotheses 1, 2 and 4. A null hypothesis was accepted at 0.05 level of significance when the calculated value of t or F ratio was equal or less than critical t or table value of F; otherwise the null hypothesis was rejected.

Results

Table 1: Mean rating of the respondents on the degree to which staff training and educational attainment impact the productivity of industrial goods firms in Nigeria.

S/N	Item Statement	x	S.D	Remark
1.	My firm makes sure employees are well trained.	3.27	0.821	Agree
2.	My firm provides extensive training and career development programmes	2.84	1.03	Agree
3.	Educational credentials have a greater impact on productivity	2.94	0.84	Agree
4.	Employees should be empowered with skills necessary to handle their tasks.	3.48	0.77	Agree
5.	Training acquaints employees with technology, competencies, and skills which provide opportunities to practice and enhance their capabilities	4.01	1.12	Agree

Source: Field work, 2022

The data presented in Table 1 revealed the degree to which staff training and educational attainment impact the productivity of industrial goods firms in Nigeria. It was shown that the respondents agreed to statements on the degree to which staff training and educational attainment impact the productivity of industrial goods firms in Nigeria with a mean range of 2.84 – 3.48. The standard deviation (SD) ranges from 0.77 to 1.12 showing that the respondents are close in their responses

Table 2: Mean rating of the respondents on the effect of work environment and job stress on productivity of industrial goods firms in Nigeria.

S/N	Item Statement	x	S.D	Remark
6.	Work environment deficient of crucial amenities could discourage employees	2.81	1.90	Agree
7.	Another work environment factor that can hinder production is stress	2.93	0.82	Agree
8.	Poor work conditions owing to physical components leads to low production levels and an overall job dissatisfaction.	3.03	0.71	Agree
9.	The management of our current job is far more better than our former job	2.63	1.11	Agree
10.	Work environment of the firms in Nigeria is perceived as relatively conducive	1.96	0.76	Disagree

Source: Field work, 2022

The data presented in Table 2 revealed that items 6 – 9 have mean value above 2.50, while item 10 has mean value 1.96 (below the 2.50 bench mark). Moreover, the standard deviation (SD) ranges from 0.71 to 1.90 indicated that the respondents are close in their responses

Table 3: Mean rating of the respondents on the influence of staff job satisfaction and motivation on productivity of industrial goods firms in Nigeria.

S/N	Item Statement	x	S.D	Remark
11.	I am satisfied with my job and my co-workers and supervisor support me as well	3.08	0.98	Agree
12.	We do not have enough time to get everything done on our job	2.71	1.06	Agree
13.	We do not have enough support services to do our job.	1.98	0.74	Disagree
14.	Employees who are satisfied with their job becomes more supportive	3.07	1.05	Agree
15.	Job satisfaction is the key to attract and maintain the talented individual in an organization	3.22	0.85	Agree

Source: Field work, 2022

The data presented in Table 3 revealed the result **on the** influence of staff job satisfaction and motivation on productivity of industrial goods firms in Nigeria. It was shown that the respondents agreed to the items but disagreed with item 13 (1.98; 0.74). The standard deviation (SD) ranges from 0.74 to 1.06 which shows that the respondents are close in their responses

Table 4: Mean rating of the respondents on the influence of leadership style and organizational policy on productivity of industrial goods sector in Nigeria.

S/N	Item Statement	x	S.D	Remark
16.	Conflict with managers and supervisors is a frequent cause of low productivity	3.10	0.63	Agree
17.	Leadership style and policy here emphasizes on results rather than humanity and staff involvement in this sector is minimal	2.62	1.47	Agree
18.	Managers here do not recognize individual effort but mistakes	2.23	0.82	Disagree
19.	Employees are eager to maximize themselves to be more productive and can identify and give top attention to top priorities given a good leader.	2.91	0.73	Agree
20.	Leadership style and policy employed in industrial goods sector is satisfactory and we were able to maintain our values at this firm	2.71	0.65	Agree

Source: Field work, 2022

The data presented in Table 4 revealed the result **on the** influence of leadership style and organizational policy on productivity of industrial goods sector in Nigeria. Response to item No 18 of 2.23 depicts negative mean. However the mean ranges from 2.23 – 3.10. The standard deviation (SD) ranges from 0.63 to 1.47 shows that the respondents are close in their responses

Test of Hypotheses

Hypothesis 1

There is no significant difference in the mean ratings of respondents on the impact of staff training and educational attainment on productivity of industrial goods firms in Nigeria relative to educational qualifications.

Table 5: ANOVA Result of the difference in the mean ratings of respondents on the impact of staff training and educational attainment on productivity of industrial goods firms in Nigeria relative to educational qualifications.

Source of variance	Sum of square	Degree of freedom	Mean square	F- cal	F-tab	Level of sig.	Decision
Between groups	11.60	3	3.86				
Within groups	2058.46	171	8.04	0.16	2.33	.05	Accept
Total	2070.06	174					

The result in Table 5 shows the summary of the ANOVA statistical analysis of staff who possess MSc/MBA, BSc/HND, CIBN/ICAN/ANAN, ND/NCE/SSCE holders on the impact of staff training and educational attainment on productivity of industrial goods firms in Nigeria. The table shows the following ANOVA statistical values: F-cal 16; F-crit 2.33 at DF 3.171. As the F-calculated is less than F-tab values the null hypothesis of no significant difference among staff with varying qualifications is accepted. This indicates that there was no significant difference among the mean response of staff with varying qualifications on the impact of staff training and educational attainment on productivity of industrial goods firms in Nigeria.

Hypothesis 2

There is no significant difference in the mean ratings of respondents on the effect of work environment and job stress on productivity of industrial goods firms in Nigeria relative to length of service.

Table 6: ANOVA Result of the difference in the mean ratings of respondents on the effect of work environment and job stress on productivity of industrial goods firms in Nigeria relative to length of service

Source of variance	Sum of square	Degree of freedom	Mean square	F- cal	F-tab	Level of sig.	Decision
Groups	797.23	3	266.07				
Within groups	1569.75	171	6.13	14.44	2.33	.05	Rejected
Total	2366.98	174					

The result in Table 6 indicates the summary of the ANOVA statistical analysis of the respondents with varying length of service/experience on the effect of work environment and job stress on productivity of industrial goods firms in Nigeria. The table shows the following

ANOVA statistical values: $F\text{-cal } 14.44 > F\text{-crit } 2.33$ at 3/81. As the $F\text{-cal}$ is greater than $F\text{-tab}$ at DF 3/171, that is $F\text{-cal } 14.44 > F\text{-tab } 2.3$ at 3/171 and at .05 level of significance, the null hypothesis of no significance difference among the staff with varying length of service/ experience was rejected and the alternative accepted.

As a significant difference existed in the mean responses, there was need to locate the point of difference. The mean scores of all possible groups were compared to located source(s) of the difference and only the group of respondents with (Below 10 years) and (21 years and above) working experience indicating significant difference between the groups with Scheffe result of 5.42 and thus the difference lied between the groups with Scheffe result of 5.42 and thus suggesting that the difference lied between them.

Hypothesis 3

There is no significant difference in the mean ratings of respondents on the effect of staff job satisfaction and motivation on productivity of industrial goods firms in Nigeria relative to official rank.

Table 7: Summary of t-test difference on the mean responses of Junior and Senior staff on the effect of staff job satisfaction and motivation on productivity of industrial goods firms in Nigeria

Variable	n	Mean	SD	t-cal	Decision
Junior Staff	76	3.21	0.64	1.94	Accept
Senior Staff	98	3.28	1.71		

The result presented in Table 7 indicates that the calculated t-value of 1.94 is less than the critical t-value of 1.96 at difference of 176 at 0.05 significance level. Therefore, there is no significant difference in mean responses of respondents on the effect of staff job satisfaction and motivation on productivity of industrial goods firms in Nigeria relative to official rank. The null hypothesis is sustained.

Hypothesis 4

There is no significant difference in the mean ratings of respondents on the impact of leadership style and organizational policy on productivity of industrial goods firms in Nigeria relative to length of service

Table 8: ANOVA Result of the difference in the mean ratings of respondents on the impact of leadership style and organizational policy on productivity of industrial goods firms in Nigeria relative to length of service

Source of variance	Sum of square	Degree of freedom	Mean square	F-cal	F-tab	Level of sig.	Decision
Between groups	11.60	3	3.86				
Within groups	2058.46	171	8.04	0.16	2.33	.05	Accept
Total	2070.06	174					

The result in Table 8 shows the summary of the ANOVA statistical analysis of staff who possess MSc/MBA, BSc/HND, CIBN/ICAN/ANAN, ND/NCE/SSCE holders on the impact of staff training and educational attainment on productivity of industrial goods firms in Nigeria. The table shows the following ANOVA statistical values: F-cal 16; F-crit 2.33 at DF 3.81. As the F-calculated is less than F-tab values the null hypothesis of no significant difference among staff with varying qualifications was not rejected, i.e accepted. This indicates that there was no significant difference among the mean response of staff with varying qualifications on the impact of staff training and educational attainment on productivity of industrial goods firms in Nigeria. Consequently, the null hypothesis of no significant difference in the mean assessment is upheld.

Discussion of Finding

The finding in Table 1 shows the degree to which staff training and educational attainment impact the productivity of industrial goods firms in Nigeria. The result shows that with a mean range of 2.84 – 3.48 respondents agreed that staff training and educational attainment impact productivity of industrial goods firms. Also standard deviation (SD) values in Table 1 shows that the respondents were very close in the opinions. This agreed with the assertion of Jeni et al (2021). They recommended further that banks should set aside resources for regular employee training to improve performance vis-a-viz the dynamic work environment.

The result in Table 2 shows the respondents rating on the effect of work environment and job stress on productivity of industrial goods firms in Nigeria. With a mean range of 1.96-3.03, the result shows that work environment and job stress affect productivity of industrial goods firms in Nigeria. Also the standard deviation in the table shows that the respondents were very close in their opinions on the effect of work environment and job stress on productivity of industrial goods firms in Nigeria. This finding agrees with the view of Njururi (2016) that satisfaction with the work environment was one major factor contributing to high level of productivity among employees. However, it is should be noted from the analysis of factors that respondents disagree that work environment is relatively conducive.

The analysis in Table 3 reveals the respondents rating on the influence of staff job satisfaction and motivation on productivity of industrial goods firms in Nigeria. The table shows that with a mean range score of 1.98-3.22 and SD range of 0.74 -1.06, respondents agreed that staff job satisfaction and motivation influence productivity of industrial goods firms in Nigeria. The standard deviation score shows homogeneity in the opinion of the respondents. This finding agrees with the view of Aakoo, et al (2022) that the provision of incentive to employees/staff should be encouraged in the interest of the organization and society at large,

The result in Table 4 reveals the result **on the** influence of leadership style and organizational policy on productivity of industrial goods sector in Nigeria. With a mean range of 2.23 – 3.10 and standard deviation (SD) range of 0.63 to 1.47, the result shows that leadership style and organizational policy influence productivity of industrial goods firms in Nigeria.

Also the standard deviation in the table shows that the respondents were very close in their opinions on the influence of leadership style and organizational policy on productivity of industrial goods in Nigeria. This finding agrees with the view of Altrasi (2014) that employee performance/productivity is positively influenced by leadership style of managers and policy makers. Thus they canvassed that practicing managers and policy makers should be

conscientious of the leadership styles and policies adopted in order to increase employee performance at work.

The test of hypothesis one (H_{O1}) indicates that there was no significance difference in the mean ratings of staff with varying qualifications on the degree to which staff training and educational attainment impact the productivity of industrial goods firms in Nigeria. This means that the four groups of respondents with varying qualification have similar opinion on the degree to which staff training and educational attainment impact the productivity of industrial goods firms in Nigeria. This result may be attributed to the fact that each group appreciates the importance of staff training and education vis-a-viz staff productivity.

The result of hypotheses two (H_{O2}) shows that significant difference exist in the mean responses of the staff with varying year of experience on the effect of work environment and job stress on productivity of industrial goods firms in Nigeria. The Scheffe test used proved that the differences lied between two groups of respondent with (below years) and (21 years and above) working experience. Employing the Scheffe test statistic, all the mean scores of the possible groups were compared to locate the source of the significant difference. It was found that with Scheffe result of 5.42 for staff with below 10 years and 21 years and above working experience, the difference lied between them.

The implication of this finding is that staff with many years of experience are in a better position to understand the work environment and job stress associated with the discharge of tasks in the company.

The test of hypothesis three (H_{O3}) shows that there is no significant difference in mean responses of respondents on the effect of staff job satisfaction and motivation on productivity of industrial goods firms in Nigeria relative to official rank.

The test of hypothesis four (H_{O4}) indicates that there was no significance difference in the mean ratings of staff with varying qualifications on the influence of leadership style and organizational policy on productivity of industrial goods sector in Nigeria. This means that the four groups of respondents with varying qualification have similar opinion on the influence of leadership style and organizational policy on productivity. This result is in line with the Equity theory which states that employee motivation at work is driven largely by their sense of fairness. That people compare their inputs (the work they do, the money they contribute, the effort they put forth) to their outcomes (the reward they receive, such as salary, benefit and recognition). Moreover, this is determined, to large extent, by leadership style and organizational policy

Conclusion

This study focused on determinants of staff productivity in industrial goods companies in Nigeria.

Based on the findings and discussion of the findings is concluded that staff training and educational attainment, work environment, motivation and leadership and organizational policy was statistically significant in determination of staff productivity in industrial goods companies in Nigeria.

Recommendations

Consequent upon the conclusion above, the following recommendations are hereby made.

1. Training of staff and educational attainment should be made compulsory for all staff of the industrial goods firms for them to be retained in the work and at the same time put in their best to achieve a highest result
2. Work environment should be made conducive to reduce stress and increase staff productivity. Thus the creation of conducive work environment for employees reduces job stress.
3. **Enhanced Remuneration/Compensation Packages:** Firms should develop competitive salaries that lead that market. Equally bonus payments should be done in a way that rewards and recognizes effort, performance and excellence. Attractive remuneration package is one of the extremely essential factors of increases employees' productivity since through it employees' financial and physical needs can be met. In addition, **conditions that improve Job Satisfaction should be encouraged.** This may be achieved through Provision of Career Progression Opportunities. Employees' turnover can be drastically reduced through the provision of avenues for career progression by employers.
4. **Provision of Quality Leadership:** Employees' productivity can be improved through the provision of quality leadership by management generally and by individual managers and team leader. Employees should be treated fairly, justly and with human dignity by managers, giving them due respect, devoid of harassment and embarrassment.

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