

Effect of Work Environment on Employees' Productivity in Listed Consumer Goods Manufacturing Firms in Nigeria

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Abstract:- Companies have come to realize the importance of comfort in the workplace environment, improving on functional ergonomic elements in order to retain quality personnel, increase productivity, and maintain a competitive edge. This study examined the effect of work environment on employees' productivity in listed consumer goods manufacturing firms in Nigeria. Multi-stage sampling technique was used to select 480 employees from the sixteen listed firms and data were gathered through structured Questionnaires. Multiple regression analysis were used to analyze the data. Based on the analysis, the result revealed that the work environment (i.e supervisory supports, physical work environment, corporate culture) have a significant effect on employees' productivity in the listed consumer goods manufacturing firms in Nigeria. Work environment accounts for 74.6% of the variations in employees' productivity in the listed consumer goods manufacturing firms ($R^2 = .746, p < 0.05$) which means work environment has significant effect on employees' productivity. The findings reflected that supervisory supports, physical work environment, and corporate culture affect employees' productivity positively. Therefore, it was recommended that firms should have in place a good working condition for their employees' in order to boost their morale and make them more efficient and management should try as much as possible to build a work environment that attracts, retain and motivate its employees' to increase their productivity on continuous basis.

Keywords:- Work environment, systems, employees' productivity, firms, supervisory support, physical work environment, corporate culture.

I. INTRODUCTION

Every organisation comprises workers (employees) as well as the environment of work where these workers carry out their various tasks. The working environment plays an important role in the employee's productivity. Working environment is argued to impact immensely on employee's productivity either towards negative or positive outcomes (Chandrasekhar 2011). In the world, there are international organisations that debate the rights of employees. Most people spend fifty percent of their lives within indoor environments, which greatly influence their mental status, actions, abilities, and productivity (Mollel, Mulongo & Razia, 2017). Better outcomes and increased productivity is assumed to be the result of better workplace environment. A

better physical environment in the office will boost the employees and ultimately improve their productivity. Various literature pertaining to the study of multiple offices and office buildings indicated that the factors such as dissatisfaction, cluttered workplaces, and the physical environment are playing a major role in the loss of employee's productivity (Clements- Croome, 1997).

Today's work environment is different, diverse and constantly changing. Companies have come to realize the importance of comfort in the workplace environment, improving on functional ergonomic elements in order to retain quality personnel, increase productivity, and maintain a competitive edge. The workers are living in a growing economy and have almost limitless job opportunities and the pressure to attract and retain them has become a scary reality for most organisations. This combination of factors has created an environment where the business needs its employees more than the employees need the business. According to Bole, Pellertier, and Lynch, (2004), when the employees' desire to work both physically and emotionally on their jobs, then their performance outcomes shall be increased. They also stated that by having a proper workplace environment, it helps in reducing the number of absenteeism and thus can increase the employees' performance which will lead to the increasing number of productivity at the workplace. However, a well manage employees' engage maximally with the organisation to attain their goals, especially with their immediate environment. The better physical environment of the workplace will support the employees and eventually work on their productivity (Okafor, 2019).

The productivity of workers in Nigerian companies needs to become a source of concern to companies because it has an effect on the performance of the organisations, the quality of the work, and the goodwill of their customers (Abdul, 2018). There are a number of factors that have been linked to an organisation's level of success, including increased market share, technological innovation, employees who are service-oriented, and leadership style. Nevertheless, among all of these factors, the employees are the single most important factor (Koshy & Suguna, 2014). The reason for this is that employees' play a significant part in achieving the goals that have been set for the organisation (Koshy & Suguna, 2014). Because of poor or low employees' productivity and the unconducive internal environment of the organisations, most organisations were unable to achieve their goals and targets. This was the case in the majority of organisations (Mollel, Mulongo & Razia, 2017).

In a great number of nations around the world, the significance of the productivity of workers is something that simply cannot be overstated. Countries such as the United Kingdom, Canada, Germany, the United States, and others showed a 24% increase in the productivity of their employees in the year 2000. This increased to more than 33 percent in 2010 and 38 percent in 2020 respectively. According to the empirical literature, a significant number of studies (Sa'iyah, 2015) have identified various factors that can be used to stimulate employees' productivity. These factors include enabling working conditions, equitable rewards, supportive supervisors, employee resiliency, technological advancements, human capital development, and innovative technological advancements. Additionally, a work environment is also included. On the other hand, a significant obstacle that has been faced by developing nations like Nigeria is the issue of employees' productivity. The level of productivity that employees in all of Nigeria's different industries have achieved has significantly decreased in recent years (Adedayo, 2017). Even with all of the efforts that have been put in by the government of Nigeria and the management of the various organisations, the productivity level is still worryingly low, particularly in the manufacturing sector (Eneh, Inyang & Ekpe, 2015).

The employees of a company are a true source of good corporate image development and reputation-projection ambassadors, both of which contribute to the financial performance of a company (Isiwu, 2012). It is therefore important for strategic manufacturing organisations in Nigeria to satisfy their employees' and, as a result, leverage them for competitiveness by curbing the growing instances of staff casualization, low remuneration, and other discouraging working conditions. In addition, it is imperative that these organizations' provide a safe and healthy working environment for their employees (Okafor, 2019). This issue served as the impetus for this study. As a consequence of this context, the purpose of the study is to investigate the effect work environment on employees' productivity, with a particular emphasis on listed consumer goods manufacturing firms in Nigeria.

II. STATEMENT OF THE PROBLEM

Many believe that a healthy national economy must have a thriving manufacturing sector (Adamu, & Sanni, 2015, Dogara, 2018). In order to make a significant contribution to GDP, create jobs, and speed up national industrialization, the sector must successfully harness and transform available raw resources into value finished goods by operating under a good working environment. Unsurprisingly, the lack of enabling infrastructure is preventing the industry in Nigeria from reaching its full potential, as shown by Adamu and Sanni (2015); Dogara (2018). It's possible that this dysfunction is to blame for Nigerian manufacturers' continued failure to fully capitalise on the market potential presented by the country's population of 200 million.

Poor working conditions are often believed to be blamed for the widespread performance issues plaguing Nigerian businesses (Akinyele, 2010). Negative stories

about low productivity and ongoing worker unrest, inefficient operations, a lack of supervisory support, an unwelcoming company culture, regulatory sanctions, and allegedly inadequate welfare packages have dominated national media coverage (Saman, 2015). According to Nwosu and Uffoh (2005), manufacturing companies have, over the years, ignored the majority of the aforementioned problems. Therefore, the objective of this research is to examine the effect of work environment on employees' productivity in manufacturing firms.

A few investigations have been conducted to examine the effect of work environment on employees' productivity in different sectors like education, agribusiness, health, financial, and telecommunication sectors: (Agnieszka, 2012; Ahmad, Iqbal, Mir, Haider, & Hamad, 2014; Farheen, Faiza, & Syed, 2015; Maina, 2015; Malaolu and Ogbuabor, 2013; Mandara, Ibrahim, Zailani, Ali, & Badiya, 2019; Nnorom, Akpa, Egwuonwu, Akintaro & Herbertson 2016; Obiora, 2002;). There is however scarce studies on the manufacturing sector especially on consumer goods manufacturing firms in Nigeria. Thus, this study is to determine the effect of the work environment on employees' productivity in manufacturing firms.

The results of this study would be significant in the sense that it would enable both the management and the employees to understand better how to make the workplace environment more effective and conducive, to inspire the workers, increase and sustain productivity in a dynamic environment. Also, this study will be of immense benefit to policy makers in the human resource function of the organisation to maintain a close gap in term of conducive workplace factors and operations of their workers. This study focused on the effect of work environment on employees' productivity in listed consumer goods manufacturing firms in Nigeria.

The study was guided by the Affective Events Theory (Weiss and Cropanzano, 1996). According to the theory, the connections between employees' inner influences - intellects, feelings, emotional states, and their reactions as influenced by the effectiveness of management techniques are all affected by the suitability of the work environment which also affects their productivity. As proposed by Zimmerman (2008), an employee builds confidence and participates actively in the success of the organization when provided a suitable work environment and when appraised constructively.

The results of this study would be significant in the sense that it would enable both the management and the labour union to understand better how to make the workplace environment more effective and conducive, to inspire the workers, increase and sustain productivity in a dynamic environment. Also, this study will be of immense benefit to policy makers in the human resource function of the organisation to maintain a close gap in term of conducive workplace factors and operations of their workers. This study focused on the effect of work environment on employees' productivity in listed consumer goods manufacturing firms in Nigeria.

III. LITERATURE REVIEW

According to Oyewale, Arogundade, and Sadiku (2019), a university's work environment consists of the physical conditions under which academic work, such as teaching and research, is conducted. This includes amenities like comfortable office space, a well-stocked library, and a well-equipped laboratory.

According to Nita (2017), an employee's workplace is the sum of all actual and potential forces, actions, and influential elements that are at odds with the worker's ability to do his or her job. The workplace is the sum of the relationships between employees and their external surroundings.

"The ability to transfer information between organisations depends on how the work environment is built to enable organisations to exploit work environment as if it were an asset," Brenner (2004) wrote. Because of this, businesses may boost their efficiency, and their workers can share in the benefits of their collective expertise. He also stated that a workplace that prioritises its workers' happiness and the open flow of information and ideas is more effective at inspiring its staff to work harder.

According to Opperman (2002), the technical environment, the human environment, and the organisational environment make up the work environment. The work environment is a synthesis of these three fundamental subenvironments. The terms "tools," "equipment," "technology infrastructure," and "other physical or technical features" are together referred to as "the technical environment." Employees are able to carry out their various responsibilities and activities because the technology environment creates the ingredients necessary for them to do so. The term "peers" and "those with whom employees associate" are both included in the "human environment," as are teams and workgroups, interactional difficulties, management, and leadership. This environment is created in such a way that stimulates informal interaction in the workplace so that the opportunity to share knowledge and exchange ideas could be expanded. Specifically, this environment is designed to encourage interaction in the following ways: This is the foundation for achieving the highest possible levels of production.

According to Shimawua (2017), organisational working environment features support from supervisors, positive relations with coworkers, physical labour, opportunities for training and development, recognition and reward programmes, as well as an appropriate amount of work. The management team is in charge of controlling the organization's atmosphere. In a measurement system in which employees are rewarded based on amount, workers will have little incentive to assist other workers in their efforts to enhance quality because they will be rewarded for quantity. Therefore, factors relating to the environment of the organisation have an effect on employees' levels of productivity.

A. Supervisor Support

A supervisor is the first-level manager in an organisation and is seen as a leader, problem-solver, and example by others under them (Nijman, 2004). Eisenberger, Stinglhamber, Vandenberghe, Sucharski & Rhoades (2002) explained supervisor support as the level in which subordinates are aware that their supervisors care for and value their welfare and input at work. According to Eisenberger et al. (2002), supportive supervisor provides guidance, assistance and feedback to their employees that are crucial to employees' adaptation in the workplace. With guidance, supervisors provide significant directions to their employees to know their responsibilities and how to carry out these responsibilities. With assistance, supervisors assist in removing any obstacles that may impede their employees in performing their duties accurately.

According to Rabey (2007), a manager might play the role of a trainer if he or she provides employees with guidance on the operational process, particularly when it comes to a new operational procedure. It is possible that a supervisor's failure to provide adequate support for their staff reduces productivity. Issues may arise, for instance, when a supervisor fails to adequately convey important information to his or her staff because of a misunderstanding.

B. Physical Work Environments

The physical working environment incorporates the general wellbeing and security of the employee including his/her government assistance and prosperity (Foldspang, 2014). The condition of the physical working environment can cause an employee to feel great or awkward at the work environment (Pandey, 2017). Akhtar (2014) recognized a positive relationship between office format and productivity, showing that a more favourable design prompts expanded productivity. Ismail, Ladisma, Mohd, & Arapa, (2016). supplements and agrees with the above researchers, by featuring the conditions vital for a favourable working environment and the advantages they were to the employee and the organisation as follows: upkeep of proper temperature and ventilation, advantage perusers and forestalls harm because of touchy electronic gadgets; adequate regular and counterfeit light makes solace, improve the grouping of employee just as lessening the blunder rate.

Asawo (2017) states that a helpful physical workplace environment is fundamental and significant since it gives a pleasurable encounter to employees, empowers them to expand their latent capacity, deal with their conduct and associates them physically, intellectually, genuinely to their work jobs and eventually develops protection from the possibility of separating from the organisation. The concentrate additionally expressed that the drawn-out money-saving advantages of an appropriately planned and easy to understand physical work environment are key to employee commitment and gainful to the flourishing of an organisation. Amofa (2016) believes that a quality work environment ought to be an aggregate liability of the two employees and bosses, with the end goal that the client should step up to the plate of first looking at the

appropriateness of the devices to utilize, the furnishings, the atmosphere of the workplace, and report to the management for fundamental activity. The condition of the physical work environment of employees' decides the degree of responsibility at work, the degree of cohesiveness between management, associates, and employees at work, the nature of administration and prosperity, and; that it gives an unmistakable image of the course the organisation is taking either to thriving or to disappointment (Akhtar, 2014).

C. Corporate Culture (Performance-Oriented)

Organizational culture is developed by accountable people at executive levels, and it consists of shared values, norms, and practises that employees are expected to embrace in order to contribute productively to the business (Tsai, 2011). The core concept behind performance-oriented cultures is to incentivize better behaviour from employees (i.e., increased productivity, cooperation, and collaboration) with increased financial and social rewards throughout the organisation (Ko, Hur & Smith-Walter 2013). Consistent managerial actions of praise and acknowledgement of good performance are necessary to elicit the right responses from workers (Bakoti, 2016). Penlver, Salanova, Martinez, & Schaufeli (2019) found that high performance and productivity can flourish in an organisation with a culture marked by a strong commitment to its people, a set of shared values and standards, widespread recognition of the importance of individuality, encouraging leadership, and free flow of information. Companies should instruct their workers in time management and the usage of the 80/20 rule, which states that only 20% of efforts produce 80% of the desired results (Kirk, 1997).

D. Employee Productivity

Employee productivity, as described by Gopal (2017), refers to an employee's ability to create the desired output of goods and services while adhering to established standards and achieving organisational goals within a specified time frame. It goes on to say that the organization's productivity is based on how well its inputs are used to produce output, providing a foundation for management to make decisions about where to allocate resources (such as purchasing new equipment or hiring more staff) in order to maximise productivity.

According to Ehsan (2018), having an appropriate environment in the workplace assists in lowering the number of instances of absenteeism, which in turn will boost the performance of the employees, which in turn will lead to greater levels of productivity. In addition to this, it was stated that employers should always make an effort to identify the factors that influence the attitudes and behaviours of their employees and then find every possible way to mitigate the effects of those factors in order to create a work environment that is conducive and peaceful. Evaluation of employee productivity can be accomplished by determining whether or not predetermined goals are accomplished within the allotted time frame, whether or not the ideal standards are met, and whether or not there is an increase in the output of goods and services in comparison to the input (Abdi, 2014). The same author suggested to organisations that they should provide a comfortable

working environment to their employees, where both individual goals and organisational goals are considered, to enhance the productivity and well-being of their employees. Foldspang (2014) makes a contribution by arguing that the plan to continuously improve the working environment can have a favourable impact on the success of the organisation.

According to Pandy (2017), Employee productivity was defined as the rate at which a worker creates items, as well as the volume produced, in comparison to how much time, effort, and money is required to generate them. The most important elements of worker productivity are technical advancement and efficient use of available labour. Because keeping up with technology advances entails massive investments of capital, businesses are always looking for ways to improve how they use their workforce in order to reach higher levels of efficiency. Productivity is something that can be boosted by working on human interactions.

E. Empirical Review

Researchers Oyewole, Arogundade, and Sadiku (2019) looked at the relationship between academic staff job performance in Nigerian universities and the work environment as well as the provision of instructional facilities. The research was carried out using a survey design with a descriptive research component. Participants in the study included both students and faculty members affiliated with public universities located in the Southwest region of Nigeria. The 540 academic staff members and 1,350 students who participated in the study were selected for the sample using stratified, purposive, and simple random selection approaches, respectively. The Pearson Product Moment Correlation was used to examine each and every one of the assumptions. The results of the research showed that there was a substantial connection between the working environment and the job performance of academic personnel.

A study was undertaken by Ni Putu and Ni Made (2018), with the goal of determining the effect of the physical work environment on employee productivity, with the role of employee job satisfaction serving as a mediator. In order to collect primary data for this study, questionnaires and in-person interviews were conducted with employees. The approach of the survey was utilised. According to the findings of the research conducted, the physical working environment was found to have a direct influence that was both positive and significant on employee productivity.

Nita (2017) conducted a case study in a clothes manufacturing business to investigate how the work environment influences the levels of job satisfaction and productivity among employees. The employees of the clothes manufacturing factory were given a questionnaire, and multiple regression analysis and structural equation modelling were used to forecast the correlations between the variables. According to the conclusions of the study, there is a very strong causal impact between the working environment and employee pleasure, which ultimately leads to greater levels of productivity.

Gitahi, Maina, and Joel (2015) conducted research into how the environment of the workplace influences the performance of employees working for commercial banks in the town of Nakuru. In order to investigate how the workplace environment influences performance in the study area, the research utilised a descriptive survey design. A regression analysis was carried out in order to evaluate the extent to which the independent variables may explain a change in employees' performance, and Pearson's correlation was utilised so as to demonstrate the connection that exists between working environments. According to the findings of the study, the independent variables (physical, psychological, and work-life balance) were significant determinants in improving the overall performance of workers.

IV. RESEARCH METHODOLOGY

The study employed a descriptive survey research design to find out the effect work environment on employees' productivity in listed consumer goods manufacturing firms in Nigeria. The target population of this study comprised head office employees (Top-level managers, Middle-level managers, Lower level managers, and other staff) in the selected listed consumer goods manufacturing firms located in the Lagos State Nigeria. Therefore, all the head office employees' of Cadbury Nigeria Plc, Dangote Sugar Plc, Flour Mills Nigeria Plc, Guinness Nigeria Plc, Nestle Foods Nigeria Plc, Nigerian Breweries Plc, Nigerian Enamelware Plc, P. Z. Cussons Nigeria Plc, Unilever Nigeria Plc, Vita Foam Nigeria Plc, Honeywell Flour Mills Plc, 7-Up Bottling Company Plc, Dangote Flour Mills Plc, Union Dicon Salt Plc, UTC Nigeria Plc, and Vono Foam Products Plc comprised the population of this study. Multi-stage sampling technique was used for the study. The first stage involved the purposive selection of Lagos State because majority of the manufacturing firms in Nigeria have their headquarters located in Lagos (MAN, 2018). In the final selection of the firms, all the sixteen consumer goods firms that are located in Lagos State and active in the stock market for a consecutive minimum of five years was selected. The distribution of the sample size (480) was based on the proportion of relevant staff in each of the sixteen firms.

The research instrument used was structured questionnaire. Questionnaire forms the heart of the research as it is administered directly to the respondent within the sample area in form of sample, clear and direct question which elicit the required response to the needed information for the researcher.

A. Data Analysis

The treated and valid copies of the questionnaire was coded for analysis and entered into SPSS Version 27. We utilize the following statistic techniques in order to explain the effect of work environment on employees' productivity in listed consumer goods manufacturing firms in Nigeria: Descriptive statistics to analyze the demographics of respondents, and to test the hypothesis, we used multiple regression to analyze the effect of work environment on employees' productivity.

B. Model Specification and Estimation Technique

Multiple regression models was specified following Mabaso and Dlamini, (2017).

$$EP = f(WE) \dots\dots\dots (Eq. 1)$$

Where WE is specified as:

$$WE = SS, PWE, CC, \dots\dots\dots (Eq. 2)$$

However, the two functional models are:

$$EP = f(SS, PWE, CC) \dots\dots\dots (Eq. 3)$$

Where:

- EP = Employees' Productivity
- SS = Supervisor Support
- PWE = Physical Work Environment
- CC = Corporate Culture

The econometric model is specified as:

$$EP = \lambda_0 + \lambda_1 SS + \lambda_2 PWE + \lambda_3 CC + \mu \dots\dots\dots (Eq. 4)$$

Where:

λ_0 = Intercept, where $\lambda_1, \lambda_2,$ and λ_3 = Coefficients of SS, PWE and, CC, μ = Error term.

The expected signs of the coefficients are or *a priori* are:

$$\lambda_1 > 0, \lambda_2 > 0, \text{ and } \lambda_3 > 0,$$

or

$$\lambda_{is} > 0$$

V. RESULTS AND DISCUSSIONS

The researchers attempted to use 493 respondents for the study, but however only 395 questionnaires were able to retrieve from the respondents, and the following are the results and discussions for the analyzed data of the study.

Table 1: Respondents' Response Rate

Sample Size	Number	Percentage (%)
Correctly filled and returned	395	80
Not Returned and not completely filled	98	20
Total	493	100

Source: Field survey, 2023

Table 1 shows the number of questionnaires distributed. The result reveals that 395 were retrieved which represents (80%) of the respondents.

A. Demographic Characteristics of the Respondents:

Table 2 shows the demographic characteristics of the managers and supervisors of all the 16 consumer goods manufacturing firms' indexes on the Nigerian Exchange. The tables presented represent the descriptive statistics on the classification of responses to demographic characteristics of respondents.

Table 2: Cross Tabulation of Gender across the selected firms

			Gender		Total
			Male	Female	
Firms	Cadbury	Count	4	4	8
		% of Total	1.0%	1.0%	2.0%
	Dangote Flour	Count	23	12	35
		% of Total	5.8%	3.0%	8.9%
	Dangote Sugar	Count	31	16	47
		% of Total	7.8%	4.1%	11.9%
	Flour Mills Nig	Count	42	25	67
		% of Total	10.6%	6.3%	17.0%
	Guinness Nig	Count	7	5	12
		% of Total	1.8%	1.3%	3.0%
	Honeywell Flour	Count	14	7	21
		% of Total	3.5%	1.8%	5.3%
	NESTLE Nig.	Count	21	16	37
		% of Total	5.3%	4.1%	9.4%
	Nig. Breweries	Count	30	20	50
		% of Total	7.6%	5.1%	12.7%
	Nig. Enamelware	Count	3	2	5
		% of Total	0.8%	0.5%	1.3%
	PZ Cussons NIG	Count	14	15	29
		% of Total	3.5%	3.8%	7.3%
	Seven (7) Up	Count	9	8	17
		% of Total	2.3%	2.0%	4.3%
	Unilever Nig.	Count	10	7	17
		% of Total	2.5%	1.8%	4.3%
	Union Dicon	Count	5	2	7
		% of Total	1.3%	0.5%	1.8%
	UTC Nigeria Plc	Count	13	6	19
		% of Total	3.3%	1.5%	4.8%
Vita Foam	Count	12	8	20	
	% of Total	3.0%	2.0%	5.1%	
Vono Foam	Count	2	2	4	
	% of Total	0.5%	0.5%	1.0%	
Total		Count	240	155	395
		% of Total	60.8%	39.2%	100.0%

Source: Field Survey, 2023

The gender distribution of respondents, a total of 240 (61%) male respondents and 155 (39%) female respondents were sampled. The table shows the selected organisations have more male than their female counterparts. The same findings suggest that both males and females are fully

represented in the survey. This may be due to the nature of the task that involves the gender distribution of each firm within the total sample. Cultural perceptions of gender roles may have also contributed to the variation.

Table 3: Cross Tabulation of Years of Service across the selected firms

Firms * Years of Service in Organization Cross Tabulation						
		Years of Service in Organization			Total	
		1-3 Years	4-6 Years	7 Years and Above		
Firms	Cadbury	Count	0	1	7	8
		% of Total	0.0%	0.3%	1.8%	2.0%
	Dangote Flour	Count	7	7	21	35
		% of Total	1.8%	1.8%	5.3%	8.9%
	Dangote Sugar	Count	6	6	35	47
		% of Total	1.5%	1.5%	8.9%	11.9%
	Flour Mills Nig	Count	4	11	52	67
		% of Total	1.0%	2.8%	13.2%	17.0%
	Guinness Nig	Count	1	2	9	12
		% of Total	0.3%	0.5%	2.3%	3.0%
	Honeywell Flour	Count	1	3	17	21
		% of Total	0.3%	0.8%	4.3%	5.3%
	NESTLE Nig.	Count	6	2	29	37
		% of Total	1.5%	0.5%	7.3%	9.4%
	Nig. Breweries	Count	0	10	40	50
		% of Total	0.0%	2.5%	10.1%	12.7%
	Nig. Enamelware	Count	0	1	4	5
		% of Total	0.0%	0.3%	1.0%	1.3%
	PZ Cussons NIG	Count	0	7	22	29
		% of Total	0.0%	1.8%	5.6%	7.3%
	Seven (7) Up	Count	0	4	13	17
		% of Total	0.0%	1.0%	3.3%	4.3%
	Unilever Nig.	Count	1	5	11	17
		% of Total	0.3%	1.3%	2.8%	4.3%
	Union Dicon	Count	0	2	5	7
		% of Total	0.0%	0.5%	1.3%	1.8%
	UTC Nigeria Plc	Count	1	8	10	19
		% of Total	0.3%	2.0%	2.5%	4.8%
Vitafoam	Count	0	2	18	20	
	% of Total	0.0%	0.5%	4.6%	5.1%	
Vono Foam	Count	0	0	4	4	
	% of Total	0.0%	0.0%	1.0%	1.0%	
Total		Count	27	71	297	395
		% of Total	6.8%	18.0%	75.2%	100.0%

Source: Field Survey, 2023

Table 3 depicted the respondents' years of service in all the selected manufacturing firms that participated in the survey. The data shows that out of the 395 total respondents, 27 (6.8%) respondents have 1-3years work experience, 71 (18%) respondents have 4-6years of work experience, while 297 (75.2%) respondents have worked for the selected firms

for a period above 6 years. Generally, the statistical outputs shows that most of the respondents have above 6 years work experience. This shows that the respondents are experienced and they should be anticipated to demonstrate honesty and integrity in their responses.

Table 4: Cross Tabulation of Educational Qualification across the firms

		Educational Qualification			Total	
		OND/NCE	HND/B.SC	Master's Degree		
Firms	Cadbury	Count	2	5	1	8
		% of Total	0.5%	1.3%	0.3%	2.0%
	Dangote Flour	Count	10	21	4	35
		% of Total	2.5%	5.3%	1.0%	8.9%
	Dangote Sugar	Count	15	26	6	47
		% of Total	3.8%	6.6%	1.5%	11.9%
	Flour Mills Nig	Count	21	42	4	67
		% of Total	5.3%	10.6%	1.0%	17.0%
	Guinness Nig	Count	5	7	0	12
		% of Total	1.3%	1.8%	0.0%	3.0%
	Honeywell Flour	Count	7	11	3	21
		% of Total	1.8%	2.8%	0.8%	5.3%
	NESTLE Nig.	Count	11	23	3	37
		% of Total	2.8%	5.8%	0.8%	9.4%
	Nig. Breweries	Count	20	25	5	50
		% of Total	5.1%	6.3%	1.3%	12.7%
	Nig. Enamelware	Count	1	3	1	5
		% of Total	0.3%	0.8%	0.3%	1.3%
	PZ Cussons NIG	Count	9	16	4	29
		% of Total	2.3%	4.1%	1.0%	7.3%
	Seven (7) Up	Count	4	11	2	17
		% of Total	1.0%	2.8%	0.5%	4.3%
	Unilever Nig.	Count	6	9	2	17
		% of Total	1.5%	2.3%	0.5%	4.3%
	Union Dicon	Count	2	4	1	7
		% of Total	0.5%	1.0%	0.3%	1.8%
	UTC Nigeria Plc	Count	6	11	2	19
		% of Total	1.5%	2.8%	0.5%	4.8%
Vitafoam	Count	5	13	2	20	
	% of Total	1.3%	3.3%	0.5%	5.1%	
Vono Foam	Count	1	3	0	4	
	% of Total	0.3%	0.8%	0.0%	1.0%	
Total		Count	125	230	40	395
		% of Total	31.6%	58.2%	10.1%	100.0%

Source: Field Survey (2023)

Table 4 depicted the respondents' highest educational qualification across the selected manufacturing firms that participated in the survey. The data shows that out of the 395 total respondents, 125 (31.6%) respondents have OND/NCE, 230 (58.2%) respondents have HND/B.Sc., and 40 (10.1%) of them have Masters' degree. Generally, it can be reported that all the respondents are educated enough to provide reasonable answers to the items in the questionnaire.

B. Test of Hypothesis

- H₀: Work environment have no significant effect on employees' productivity in listed consumer goods manufacturing firms in Nigeria.
- H₁: Work environment have significant effect on employees' productivity in listed consumer goods manufacturing firms in Nigeria.

To test this hypothesis, the data for work environment (i.e. supervisory supports, physical work environment, and corporate culture) and employees' productivity in the listed consumer goods manufacturing firms in Nigeria were generated by adding scores of responses of all items for each of the variable and subjected to multiple regression analysis. The results of the regression are presented in Table 5.

Table 5: Multiple Regression for Work Environment and Employees' Productivity

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.864 ^a	.746	.744	.31446	
ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	113.691	3	37.897	383.237	.000 ^b
Residual	38.665	391	.099		
Total	152.356	394			
Co-efficient					
Work Environment Dimensions	Unstandardised Coefficients		Standardised Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.262	.141		2.858	.004
Supervisory Supports	.189	.043	.171	4.405	.000
Physical work environment	.580	.050	.429	11.704	.000
Corporate Culture	.665	.033	.672	19.949	.000

Dependent variable: Employees' Productivity

Source: Output of Data Analysis (2023)

Table 5 shows the regression analysis results on the effect of the work environment on employees' productivity in the listed consumer goods manufacturing firms in Nigeria. The analysis from Table 5 shows that the work environment (i.e. supervisory supports, physical work environment, corporate culture) have a significant effect on employees' productivity in the listed consumer goods manufacturing firms in Nigeria ($\beta = 0.864, p = .000$). The t value confirms that the work environment have significant effects on employees' productivity in the listed consumer goods manufacturing firms in Nigeria. The result further reveals that work environment (i.e. supervisory supports, physical work environment, and corporate culture) and employees' productivity in the listed consumer goods manufacturing firms are positively and significantly related.

Furthermore, work environment accounts for 74.6% of the variations in employees' productivity in the listed consumer goods manufacturing firms ($R^2 = .746, p < 0.05$), which is also significant, while 25.4% remains unexplained by the regression model. This, therefore, means that other factors not captured in the model contribute 25.4% of the variations in the employees' productivity in the listed consumer goods manufacturing firms. The model was considered strong explanatory power in explaining variations in employees' productivity in the listed consumer goods manufacturing firms. The overall explanatory power of the model was considered statistically significant with the F statistics of 383.237 and a p-value of .000 ($F(3, 390) = 383.237$). The linear regression model established is:

$$EMPROD = .262 + .189SS + .580PWE + .665CC + e \dots \dots \dots \text{(eq. ii)}$$

Where:

- EMPROD = Employees' Productivity
- SS = Supervisory Supports
- PWE = Physical Work Environment
- CC = Corporate Culture

From the regression equation above, taking all factors constant at zero, employees' productivity in the listed consumer goods manufacturing firms was .262. The regression coefficient of corporate culture (CC) and physical work environment (PWE) was 0.665 and 0.580, which indicates that a unit increase will lead to 66.5% and 58% increase in employees' productivity in the listed consumer goods manufacturing firms when all other factors are held constant. More so, the regression coefficient of supervisory supports (SS) was 0.189, which indicates that when all other factors are held constant, a unit increase in the variable will lead to 18.9% increase in employees' productivity in the listed consumer goods manufacturing firms.

The statistical findings established that corporate culture ($\beta = 0.665, t = 19.949, p = .000$) and physical work environment ($\beta = 0.580, t = 11.704, p = .000$) had the highest values and the most predictive indicators of employees' productivity in the listed consumer goods manufacturing firms. While supervisory supports had the least predictive value ($\beta = 0.189, t = 4.405, p = .000$). The descriptive statistics proved that the work environment is critical in inspiring individuals to complete their tasks. Because money alone is insufficient to motivate employees to achieve the high productivity levels demanded in today's competitive company climate. This thesis proved that the capacity to recruit, retain, and inspire high-performance employees is becoming increasingly vital. It was evident that employees' productivity will increase if the concerns found during the research are addressed by management. Overall, it was discovered that the work environment significantly impacted employees' productivity. As a result, it has become the responsibility of the selected organisations to establish a pleasant working atmosphere that encourages people to work comfortably and efficiently.

The level of confidence for the analysis was set at 95%. Therefore, the null hypothesis (H_0), which states that work environment (i.e. supervisory supports, physical work environment, corporate culture) has no significant effect on the employees' productivity in the listed consumer goods

manufacturing firms, is hereby rejected. As a result, this hypothesis suggests that a pleasant working environment boosts productivity and job happiness, which directly influences the company's financial health. The stimulating atmosphere must be managed at all times if productivity is to be maximized. This result aligns with Lankeshwara (2016) and Adeniji, Salau, Awe, & Oludayo (2018).

VI. CONCLUSION

It can be concluded that work environment enhances employees' productivity in listed consumer goods manufacturing firms in Nigeria. However, conducive work environment include, supervisory supports, physical work environment, and corporate culture promote employees' productivity.

Also, satisfied employees' will increase his or her productivity in the workplace because most of the respondents declared that any employee who is dissatisfied with his or her workplace environment is bored to increase his/her efforts and productivity. The study also revealed that employee's will improve their productivity if the problems identified during the research are tackled by the management. At the end of the research, it was realized that the employee's working environment find themselves in affect their productivity greatly. Therefore it is the responsibilities of the organisation to provide friendly working environment which will influence employees' to work comfortable and perform their job.

VII. RECOMMENDATIONS

In any organisation, work environment is a very sensitive and important issue not only to employer but also to the employees. Therefore, the ability of the organisation to attract and retain employees to be productive depends on the conduciveness of the workplace environment. Poor working relationship between the supervisors and the subordinates, as well as poor physical work environment is a constant source of frustration to the employees' which result to decrease productivity.

Therefore, it is recommended that the selected firms should have in place a good working condition for their employees in order to boost their morale and made them more efficient. An example is making their benefit programs to suit employees. Management should try as much as possible to build a work environment that attracts, retain and motivate its employees so that to help them work comfortable and increase organisation productivity.

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