



An Assessment of Hygiene Maintenance Factors Effect on Employees Productivity in Nigerian Telecommunication Industry



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Abstract

The study aimed at establishing an assessment of hygiene maintenance factors effects on employees' productivity. The hygiene/maintenance factors play a vital role in employees' productivity. They do not motivate employee in the organization, yet they must be present or dissatisfaction will arise. The study is aimed to pursue the following objectives: To determine the extent to which working conditions improve the performance of employees, to ascertain the effect of interpersonal relations within the organization on firms' profitability and to assess the extent to which compensation improve the performance of employees. The study was conducted using the survey approach. The geographical scope of the study was Mobile telecommunication network (MTN), located within Enugu metropolis. Two sources of data were utilized in the study: they included primary and secondary sources. The primary source was through the administration of copies of a designed questionnaire to a total of forty-one respondents that made up the sample size for the study. Out of the forty-one copies administered, thirty-two were completed and returned. Simple percentage (%) and chi-square were used in the analysis of the data and in testing the hypotheses. The findings revealed that working condition had an impact ($\chi^2 = 10.125 > \chi^2 = 3.84$) on improving the performances of employees; interpersonal relations within the organization did not affect ($\chi^2 = 0 < \chi^2 = 3.84$) the productivity of employees; and compensation had a positive effect on improving the productivity of employees. The study concluded and recommended that managers should design the work environment and the terms and conditions of employment to be friendly and acceptable by the employees in order to improve their performance; that managers should compensate employees fairly and try as much as possible to make the remuneration equal or close to the values of services rendered or job performed; and that managers, employers, employees and supervisors should constantly seek and maintain harmonious interpersonal relations in order to create a peaceful work environment, increased understanding among them and to enhance organizational performance and achieve their objectives.

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1. Introduction

Productivity has become a core element for organizational growth and survival. [Basu and Fernald \(2002\)](#) posit that Productivity increases the rate of low cost per unit of production and results in a lower price of goods and services. It helps the organization to retain its competitive advantage. According to them, quality productivity increases profits for businesses. When organizations make a profit, employees stand the chance of benefiting through assured remuneration and sometimes salary increment. Productivity determines the effectiveness of the business as well as the efficiency of business policies and processes.

Similarly, [Hill \(1993\)](#) posits that productivity in the holistic view helps organizations to measure their strengths and weaknesses and evaluate the strategies employed to exploit opportunities and reduce threats in its environment. They added that benefits of productivity highlighted above cannot be achieved without workers/employees. According to them, employees are the operational key determinants in the production process of organizations. Therefore, it becomes paramount that organizations look into factors that can inhibit or enhance their employees' productivity.

The hygiene/maintenance factors play a vital role in employees' productivity. They do not motivate employee in organizations, yet they must be present or dissatisfaction will arise as pointed out by [Eboh \(2008\)](#). Also, Herzberg has made it clear that motivation will not be effective if hygiene factors are missing.

[Koontz \(1986\)](#) posits that the second group or the 'job content' factors are found to be the real motivators because they have the potential of yielding a sense of satisfaction. [Haynes \(2008\)](#) pointed out that over the last four decades; there have been several issues of employees being disgruntled with the company policies and relationship with supervisors and managers. Employees have become unsettled due to a lack of job security, inadequate remuneration (wages and salary), poor working conditions and unhealthy personal relationships in the workplace.

This paper re-opened the discussion on the relationship between hygiene factors and employees' productivity and the various hygiene factors affecting employees' productivity were exhaustively deliberated on.

Statement of the problem

In an attempt to improve the productivity of employees, managers in various organizations are confronted with the following challenges; the most working environment in the organization is not conducive and hostile, the relationship between workers and supervisors is not cordially arising from hygiene maintenance factors. The resulting "dissatisfaction" adversely affects employee productivity.

The working conditions such as the amount of work, facilities for performing work, light, tools, space, temperature, ventilation and general appearance of the workplace when not conducive to employees could lead to high job turnover and truancy.

Objectives of the study

The main objective of the study is to examine the effect of hygiene maintenance factors on improving employees' productivity. The specific objectives include to:

- a) Determine the extent to which working conditions improve the performance of employees.
- b) Ascertain the effect of interpersonal relations within the organization on firms' profitability.
- c) Assess the extent to which compensation improves the performance of employees.

Research hypotheses

The following hypotheses guided the study:

- a) Working condition improves the performance of employees.
- b) Interpersonal relations within the organization affect its profitability
- c) Compensation improves the performance of employees

2. Research Methods

The Concept of Hygiene Maintenance Factors

Hygiene factors are job factors that can cause dissatisfaction if missing but do not necessarily motivate employees if present (Eboh 2008). Hygiene factors are job factors that do not give positive satisfaction, though dissatisfaction results from their absence. These are extrinsic to the work itself and include aspects such as company policies, supervisory practices, salary, job security, and working conditions. (Herzberg 1968).

When these factors are considered good, or acceptable, workers do not tend to become “satisfied“, they simply become “not dissatisfied. Productivity is not restricted, it is just held at an acceptable level. When workers become dissatisfied with any of these factors they tend to restrict output. Improving hygiene factors will reduce job dissatisfaction, but they will have almost no effect on job satisfaction or employee motivation (McShan and Glinow, 2000).

Concept of Productivity

Productivity is commonly defined as a ratio between the output volume and the volume of inputs. In other words, it measures how efficiently production inputs, such as labor and capital, are being used in an economy to produce a given level of output. More specifically, productivity is the measure of how specified resources are managed to accomplish timely objectives as stated in terms of quantity and quality (Ashford and Bobko 1989).

Productivity is useful as a relative measure of actual output of production compared to the actual input of resources, measured across time or against common entities. As output increases for a level of input, or as the number of input decreases for a constant level of output, an increase in productivity occurs. Therefore, a "productivity measure" describes how well the resources of an organization are being used to produce input (Entwistle, 1999).

Relationships between Hygiene Factor and Productivity

Ewen, Smith, Hulin, and Locke (1966) defined hygiene factors as the interaction of employee with their organizational climate, and include psychological as well as physical working conditions” other side, productivity is a concept that depends on the context in which it employed. It does not have a singular definite criterion measure or operational definition as pointed out by Valencia (2007). These definitions suggest that productivity is the measure of economic performance, as well as a resource used to produce goods and services.

If non-monetary working conditions are associated with higher productivity, the employer should pay more for the added productivity of employees in order to avoid losing the employees. In facts, “as long as more than one employer offers good working conditions for a particular category of worker, employers may be forced to bid up their wages – possibly as high as the marginal value of the worker’s product (Griliches, and Zvi. 2000).

Nwachukwu (2000) states that in organizations where employees are exposed to stressful working conditions, productivity is negatively influenced and that there is a negative impact on the delivery of service. On the other hand, if working conditions are good, productivity increase and there is a positive impact on the delivery of service.

Theoretical Framework

In this section, it is intended to outline a few influential theories related to the subject matter and thus provide a background for a better understanding of the mechanism through which hygiene maintenance factors improves employees’ productivity in the telecommunication industry.

a) Herzberg's Motivation-Hygiene Theory

In order to better understand employee attitudes and motivation, Frederick Herzberg performed studies to determine which factors in an employee's work environment caused satisfaction or dissatisfaction. The studies included interviews in which employees were asked what pleased and displeased them about their work.

Herzberg found that the factors causing job satisfaction (and presumably motivation) were different from those causing job dissatisfaction. He called the satisfiers *motivators* and the dissatisfiers *hygiene factors*, using the term "hygiene" in the sense that they are considered maintenance factors that are necessary to avoid dissatisfaction but that by themselves do not provide satisfaction.

The following table presents the top six factors causing dissatisfaction and the top six factors causing satisfaction, listed in the order of higher to lower importance.

Leading to Dissatisfaction	Leading to Satisfaction
• Company policy	• Achievement
• Supervision	• Recognition
• Relationship with Boss	• Work itself
• Work conditions	• Responsibility
• Salary	• Advancement
• Relationship with Peers	• Growth

Herzberg reasoned that because the factors causing satisfaction are different from those causing dissatisfaction, the two feelings cannot simply be treated as opposites of one another. The opposite of satisfaction is not dissatisfaction, but rather, *no* satisfaction.

Similarly, the opposite of dissatisfaction is *no* dissatisfaction. While at first glance this distinction between the two opposites may sound like a play on words, Herzberg argued that there are two distinct human needs portrayed. First, there are physiological needs that can be fulfilled by money, for example, to purchase food and shelter. Second, there is the psychological need to achieve and grow, and this need is fulfilled by activities that cause one to grow. From the above table of results, one observes that the factors that determine whether there is dissatisfaction or no dissatisfaction are not part of the work itself, but rather, are external factors. Herzberg argues that these provide only short-run success because the motivator factors that determine whether there is satisfaction or no satisfaction are intrinsic to the job itself, and do not result from carrot and stick incentives.

b) The Two Factors Theory

In 1966, Fredrick Herzberg came up with the two-factor theory of motivation. A psychologist at case the western university, Cleveland, Herzberg conducted a number of experiments, using two hundred engineers and accountants and some non-professionals in a firm in Pittsburgh. He wanted to find out the factors that motivated them and those that were not. The studies led to his classification of the factors in the workplace into the tangibles and intangibles.

The tangibles are the maintenance or hygiene factors; include some necessities of the job like salary, job security, work conditions, personal life, and status. Others include company policy, technical supervision, interpersonal relations with a supervisor, interpersonal relations with peers, and interpersonal relations with subordinates. Herzberg noted that the tangibles are important when they are lacking but of low motivational value when they are there, serving only to meet the minimum expectations of workers (Eboh, 2008).

He further stated that the intangibles also called the motivators or satisfiers, constitute the real motivating factors in the workplace. They bring real satisfaction on the job. These include achievement, recognition, advancement, responsibility, the work itself. Herzberg noted that the hygiene factors are extrinsic, that is they emphasize on the environment in which the job or task is carried out. On the other hand, the motivators are intrinsic because they take place within the job content.

In simple terms, what Herzberg is saying is that the absence of the hygiene factors can make the worker unhappy but their presence in the work environment does not motivate the worker. To be motivated when the worker is sure of the presence of the irreducible minimum', that is the hygiene factor- the satisfiers' should be applied also. It is only then that real motivation can take place.

c) The Neo-Classical Theory

The most widely acclaimed study in this direction was by Elton Mayo. A Harvard University Industrial Psychologist, fondly called the father of human relations school, carried out a number of studies at the Hawthorne plant of western electric. The studies by Mayo focused essentially on three issues:

- 1) How workers reacted to actions of management;
- 2) How variations in physical working conditions affected the output
- 3) How social interactions among workers affected their work (Behling and Kosmo,1968)

One of Mayo's experiments involved that, changes in the physical conditions in the workplace could affect productivity, to end this, Mayo and his team used an experimental group of six females under changing environmental conditions. In one instance to determine the impact of illumination on the output level of employees, the intensity of lighting was varied from fairly dark to bright and then to very bright.

Contrary to the expectations that the output level of the employees would fluctuate reflecting these variations, productivity was increased in all circumstances. In fact, it was expected that when the intensity of lighting was fairly dark output level would decline and the increase when it was bright. However notwithstanding these variations, the output level increased in all situations. Mayo's studies have thus revealed what is today known as the Hawthorne effect. It revealed the effect of the human factor in organizations – a factor which can, more than economic or material incentives influence the productivity of employees.

Motivation-hygiene theory implications for management

If the motivation-hygiene theory holds, management not only must provide hygiene factors to avoid employee dissatisfaction but also must provide factors intrinsic to the work itself in order for employees to be satisfied with their jobs.

Herzberg argued that *job* enrichment is required for intrinsic motivation and that it is a continuous management process. According to Herzberg:

- a) The job should have sufficient challenge to utilize the full ability of the employee.
- b) Employees who demonstrate increasing levels of ability should be given increasing levels of responsibility.
- c) If a job cannot be designed to use an employee's full abilities, then the firm should consider automating the task or replacing the employee with one who has a lower level of skill. If a person cannot be fully utilized, then there will be a motivation problem.

The two-factor theory of motivation by Fredrick Herzberg supports hypotheses one which states that working condition improves the performance of employees.it will lead to an improvement on Employee's Productivity in telecommunication industry because the working condition is one of the necessities of the job that its absence can make the worker unhappy. Also, Interpersonal relations within the organization affect its profitability this is in line with the Neo-Classical Theory by Elton mayo fondly called the father of human relations school. According to Elton mayo, Interpersonal relations are factors which can, more than economic or material incentives influence the productivity of employees.

Methodology

The study was conducted using the survey approach. Two sources of data were utilized in the study: they included primary and secondary sources. The primary source was the administration of copies of a designed questionnaire to a total of forty-one staff that made up the sample size for the study. Out of the forty-one copies administered; thirty two were completed and returned. Simple percentage (%) and chi-square (χ^2) were used in the analysis of the data and in testing the three hypotheses.

Presentation of data

Table 1
Responses if working conditions are improved, it will lead to an improvement on employee's productivity

Responses	Frequency	Percentage %
Y e s	2 5 7 8	1
N o	7 2 1	9
T o t a l	3 2 1 0 0	0

Source: Field survey, 2016

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From table 1 above, 25 staff indicating 78.1% agreed if working conditions are improved, it will lead to an improvement on employee's productivity, while the remaining 7 believe otherwise.

Table 2
Workers responses on how interpersonal relations within the organization affect its profitability

Responses	Frequency	Percentage%
Y e s	3 0	9 3 . 7
N o	2	6 . 3
T o t a l	3 2	1 0 0 . 0

Source: Field survey, 2016

From the table 2, above, 30 staff representing 93.7% of the sample agreed with the opinion that Interpersonal relations within the organization affect its profitability, while the remaining 2 staff representing 6.3% maintained otherwise.

Table 3
Workers responses on how compensation improves the performance of employees

Responses	Frequency	Percentage%
Y e s	1 6	5 0 . 0
N o	1 6	5 0 . 0
T o t a l	3 2	1 0 0 . 0

Source: Field survey, 2016

From the table 3, above, 16 staff in the sample, indicating 50.0% strongly agreed with the opinion that compensation improves the performance of employees, while the remaining 16 staff maintained that compensation do not improve the performance of employees.

Test of Hypotheses

a) Hypotheses 1

Table 4
Test statistics (hypothesis 1)

C h i - S q u a r e (a)	1 0 . 1 2 5	a
D f	1	
A s y m p . S i g .	. 0 0 1	

From table 4.3.2, 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 16.0.

Table 4 present the basis for analyzing whether the working condition has an impact on the performances of employees. The hypotheses were tested using the chi-square (χ^2) test statistic. At 5 percent level of significance, the null hypothesis was rejected, and it was therefore concluded that working condition has an impact on the performances of employees. The conclusion is based on the fact that the critical chi-square values of 3.84 were lower than the calculated chi-square value of 10.125 at an alpha level of 5 percent and at 4 degrees of freedom

b) Hypotheses 2

Table 5
Test statistics (hypotheses 2)

C h i - S q u a r e	2 4 . 5 0 0	a
D f	1	
A s y m p . S i g .	. 0 0 0	

From table 4.3.4, 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 16.0 Since the calculated value of $X^2(24.5)$ is greater than the critical value (3.84) of X^2 we reject the null hypothesis (H_0) and accept the alternate hypothesis (H_1) with the conclusion that Interpersonal relations within the organization affect its profitability

c) Hypotheses 3

Table 6
Test statistics (hypothesis 3)

Chi-Square	.	0	0	0	a
Df	1				
Asymp. Sig.	1	.	0	0	0

From table 4.3.5, 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 16.0.

The findings in respect of how Compensation improves the performance of employees were tested using the chi-square (χ^2) test statistic. At 5 percent level of significance, the null hypothesis was accepted, and it was, therefore, concluded Compensation does not improve the performance of employees. The conclusion is based on the fact that the critical chi-square value of 3.84 was lower than the calculated chi-square value of 0 at an alpha level of 5 percent and at 4 degrees of freedom.

3. Results and Analysis

It was found that if working conditions are improved, it will lead to an improvement in employee's productivity in the telecommunication industry. This agrees with Herzberg model as presented in the previous section of this study that hygiene factors are job factors that do not give positive satisfaction, though dissatisfaction results from their absence. These are extrinsic to the work itself and include aspects such as company policies, supervisory practices, salary, job security, and working conditions. This is also in line with the assertion by Eboh (2008) that hygiene factors are job factors that can cause dissatisfaction if missing but do not necessarily motivate employees if present.

It was found that interpersonal relations within the organization affect its profitability. This is in line with the studies of Fredrick Herzberg (1966)

The third finding is that compensation improves the performance of employees. This finding, however, only partly agrees with Gariety and Shaffer (2001), which emphasized that if non-monetary working conditions are associated with higher productivity, the employer should pay more for the added productivity of employees in order to not losing the employees. In facts, "as long as more than one employer offers good working conditions for a particular category of worker, employers may be forced to bid up their wages – possibly as high as the marginal value of the worker's product

4. Conclusion

The results and findings suggest the conclusions that working conditions improve employee's productivity, interpersonal relations within the organization affect its profitability and compensation improve the performance of employees. Based on the above conclusions, it was recommended as follows:

- Managers of the telecommunication industry should design the work environment and the terms and conditions of employment to be friendly and acceptable by the employees, in order to improve their performance.
- Managers, employees, and supervisors of the telecommunication industry should constantly seek and maintain harmonious interpersonal relations in order to create a peaceful work environment, increased understanding among them and to enhance organizational performance and achieve their objectives.
- Managers of the telecommunication industry should compensate employees fairly and try as much as possible to make the remuneration equal or close to the values of services rendered or job performed.

Conflict of interest statement and funding sources

The author(s) declared that (s)he/they have no competing interest. The study was financed by Edo University Management.

Statement of authorship

The author(s) have a responsibility for the conception and design of the study. The author(s) have approved the final article.

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