

THE EFFECT OF ACCIDENTS ON THE PRODUCTIVITY OF SOME COMPANIES IN NORTH-EASTERN STATES OF NIGERIA

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ABSTRACT

A case study was carried out on five major companies in the North-Eastern States of Nigeria, to evaluate the effect of industrial accidents on their productivity. The companies were Ashaka Cement Plc Gombe State, Savannah Sugar Company Adamawa State, Asbestos Nigeria Limited Bauchi State, Maiduguri Flour Mill and Nigeria Bottling Company Plc Maiduguri both in Borno State. Data for this study were based partially on companies performance records over ten years which emanated from the questionnaires for the workers on the production line, oral interview of the senior personnel in the production line and lastly by collecting data through their records. Percentage method was used to analyse result.

The result showed that the causes of accident in all companies are due to carelessness of the workers and to some extent lack of maintenance of the machine. There was no accident of material handling in four of the companies except in Savannah Sugar Company. The result also indicate that the production capacity of Ashaka Cement Plc declined by 18.56% because of accident. Also Nigeria Bottling Company and Maiduguri Flour Mill had their production capacity declined by 16.67% and 40% respectively. However, the production capacity during accidents of Savannah Sugar Company and Asbestos Nigeria Plc could not be ascertained due to poor record keeping. The management of these companies could reduce the accidents and improve on their productivity through training in safety measures.

KEYWORDS:

Five major companies . Industrial accidents . Productivity . Safety practices

INTRODUCTION

Industrial safety which was described by Ibhádode (1997) as discipline relating all measures taken to ensure general well-being of the worker, preventing machine down-time and material wastage due to accidental damages is a term now generally used to assess the operational efficiency of modern industry. Accidents are not only costly to our industrial economy, but they result in anguish pain or even death to the unfortunate individual involved. Accidents could be reduced in a working place by studying the individual who had them and removing the causes. An important distinction can be made between making the work safe and working safely. This should be of concern to the designer and production engineers. They have responsibilities to make the operation safe by removing hazards or controlling them. Practically all accidents can be prevented if the workers can abide by the rules and regulations of the working place. This continuing wastage of human and material resources from accident should receive great attention particularly since most of it is preventable (Esekhagb, 1996). According to Teresa (1998) there are two main causes of accident, which are technical and human.

Technical causes are concerned with deficiencies and can be eliminated through engineering. Among such causes are improper lighting, poor machine gauging and excessive noise. All type of materials handling are a potential source of accidents. Human causes are connected with deficiencies in individual for example, improper attitude, carelessness, recklessness, inability to perform the job, day dreaming, alcoholism and use of drugs on the job. The estimated ratio of human to technical causes of accidents is 4:1, so that safety programmes must concentrate more on the human aspect than on the technical aspect. Teresa (1998). A manager concerned with safety must therefore, be fully aware of the nature and importance of the human factor in causing accidents. Human factor in causing accidents can have enormous effect on the productivities of the organization. It has been clear to industrial engineers over the years that ensuring safety measures, leads to higher productivity. In this context, productivity may be defined as the rate with which work is performed by a person or an operating system. Safety also can be defined as a positive organized activity or program based on knowledge of the reaction between man and his working environment (Adewoye, 1991). With such a definition, productivity itself being regarded many a times as operating efficiency of a business venture of an organization. Therefore the terms productivity and safety in the work place should no longer be considered as separate entities. For example, if an accident of any type occurs, in which a highly trained employee is injured, the equipment damaged or the product will be rendered useless or sub-standard. Another employee must be trained and repairs made, at the expenses of productive efficiency.

It is therefore necessary to look at the effect of accidents on the productivity of companies. This is needed especially in North Eastern States of Nigeria where skill labour is limited. Despite the several studies carried out on safety practices in Nigeria industries (Asini, 1991) little or no similar work has been done on the effect of accident on the productivity of companies in North Eastern State of Nigeria. The

paper seeks to determine the nature and causes of industrial accidents in North Eastern Nigeria and examine the effect of these accidents on the productivity of these companies.

METHODOLOGY

The methods adopted for data collection for this work were based on three criteria. The first method was the use of questionnaires for all the categories of workers on the production line, since they are more exposed to accidents in working place. The second method was through oral interview for the senior personnel production line and administrative managers of the companies. Lastly by collecting data through their records in the production line.

The companies were chosen randomly from North Eastern State of the country (Table 1). They are Savannah Sugar Company Adamawa State, Ashaka Cement Plc Gombe State, Asbestos Nigeria Limited Bauchi State, Maiduguri Flour Mill and Nigeria Bottling Company Maiduguri, both in Borno State. The data obtained were analysed by using percentages.

Table 1: The companies studied and their year of establishment

S/No	NAME OF COMPANY	LOCATION	MAJOR PRODUCT PRODUCED	YEAR OF ESTABLISHMENT
1.	Ashaka Cement Plc	Gombe State	Cement	1974
2.	Savannah Sugar Company	Adamawa State	Sugar	1974
3.	Asbestos Nig. Company	Bauchi State	Roofing Sheet & Pipes	1979
4.	Maiduguri Flour Mills	Borno State	Wheat Flour	1983
5.	Nigeria Bottling Co. Plc	Borno State	Soft Drinks	1987

RESULTS AND DISCUSSION

Table 2, shows the cause of major accidents in the companies over the past ten-year of production. The most prevailing accidents that occurred in these companies is carelessness of the workers. This is followed by lack of maintenance of the machines. The accidents due to material handling is not common in the companies studies, except Savannah Sugar Company, which accounted for 34% of the accidents that took place in the company for the past ten years of production. Accidents in factories

can be classified as due to the handling of goods, power-driven machinery and lifting machinery. Also the use of hand tools, stepping on or striking against objects to burns from molten metal and use of incorrect work methods (Adewoye 1991). These accidents can be attributed to carelessness of the workers in the factories floor. These accidents can be prevented if the workers have discipline attitude to work. This can manifest itself in orderliness of the work place (for example by obeying the safety regulations). The good news for these companies is that material handling is almost accident free except Savannah Sugar Company. As it had been pointed out by Adewoye (1991) that material handling is responsible for over a quarter of the non-fatal accidents. Also is often associated with faulty supervision or with employment of persons who lacks the necessary experience, strength or agility to do the work safely.

Table 2: The causes of major accidents in the companies over the past ten years of production

S/No	NAME OF COMPANY	CAUSES OF ACCIDENT	PERCENTAGE OF RESPONDENTS
1.	Ashaka Cement Plc	Material handling Lack of Maintenance Ageing of Machine Carelessness of the workers	None None None 100
2.	Savannah Sugar Company	Material handling Lack of Maintenance Ageing of Machine Carelessness of the workers	34 22 22 22
3.	Asbestos Nigeria Company	Material handling Lack of Maintenance Ageing of Machine Carelessness of the workers	None 33 17 50
4.	Maiduguri Flour Mills	Material handling Lack of Maintenance Ageing of Machine Carelessness of the workers	None 50 None 50
5.	Nigeria Bottling Company Plc	Material handling Lack of Maintenance Ageing of Machine Carelessness of the workers	None 20 20 60

Lack of maintenance of Machines, have minimal records of accidents in the companies except the Maiduguri Flour Mill, where accident of this type is accounted for 50% of the total accidents in the company. According to Adewoye (1991) it should also be appreciated that proper maintenance of equipments, apart from prolonging the working life of the machines, goes a long way in preventing accidents. In the case of Maiduguri Flour Mill the accident is due to lack of maintenance of the roller and carelessness while operating the rolling machine.

The effects of the accidents on the productivity level of the companies can be seen in Table 3. Concerning Savannah Sugar Company and Asbestos Nigeria Limited, the level of their productions during accident periods cannot be ascertained because of their poor record keeping. In the other companies the level of productions decreased as accident occurred. The most common cause of the accident in these companies are due to carelessness of the workers. This is an unsafe act, which sometimes result in fire out break, fracture due to fall from height, chemical burns, bottle cuts and others. These accidents keep the workers, out of work and some time the whole production unit is short down.

The prevention of any kind of accident in organization should be a priority aim of good managements who want to improve in their productivity. According to Robens (1972), the procedures employed in safety programmes vary widely from the development of safety devices and protective clothing to safety campaign and competitions. One of the recognized objectives of method improvement is to increase operational safety. The studies of fatigue, rest pauses, length of week and shift work have frequently been employed to reduce accident rate. In fact, accident prevention is related to nearly every topic of industrial psychology including selection, training and employee attitude (Sharon, 1999). Several types of jobs, screening out individual who are likely to have many accidents is an important aspect of personnel selection.

As had been pointed out by Robens (1972) training of employee to follow safe operating procedures is a significant part of many training programmes. The role of employee attitudes in the observance of safety rules and in other behaviour related to accidents is widely recognized.

CONCLUSION

The management of these companies studies should bear in mind that accidents not only costly to industrial economy, but they result in anguish pain or even death to the unfortunate individual involved. Accidents could be reduced by studying the individual who had them and remove the causes. Working safely is completely a management responsibility, but the individual may contribute his/her own by observing safety rules and regulations in the working place.

Table 3: The effect of accidents on the productivity of the companies

S/No	COMPANY	DESIGNED PRODUCTION CAPACITY	PRODUCTION CAPACITY (%)	ACTUAL PRODUCTION	% OF THE DESIGNED PRODUCTION CAPACITY	PRODUCTION DURING MAJOR ACCIDENT	%
1.	Ashaka Cement Plc	850,000t	100	765,000t	90	622,999t	81.44
2.	Savannah Sugar Co.	N.A	N.A	N.A	N.A	N.A	N.A
3.	Asbestos Nig. Limited	N.A	N.A	N.A	N.A	N.A	N.A
4.	Maiduguri Flour Mills	400t/day	100	100t/day	25	60t/day	60.00
5.	Nigeria Bottling Plc	20,000t/day	100	12,000t/day	60	10,000t/day	83.33

The decline in productivity as a result of the accidents is an indication of low profits and losses by the companies studies. The accidents caused by carelessness of the workers can be reduced by more training in safety engineering. The productivity of the companies can be improved by reducing accidents mentioned in this study.

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