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Assessment of Safety Knowledge among Food Processing Workers in Minna

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Highlights

- ▶ Accidents rate in food processing factories in Minna are of great concern to safety professional.
- ▶ Lack of adequate knowledge on safety among workers is the main cause of accidents in food processing factories.
- ▶ Safety training, seminar and workshops can reduce work place accidents rates in food processing sector.

Abstract Food processing sector is one of the fastest growing industries in Minna. Workers in the sector operate various kinds of machines which exposed them to accident. As at 2012, record shows that there were 12 fatal and 500 nonfatal accidents involving food processing factories in Minna. The aim of the study is to examine the knowledge of safety and health among the workers of the food processing factories. Three (3) food processing factories were selected for the study and Ten (10) workers were interviewed at each factory using a prepared well structured questionnaire. A star ranking model was used in order to determine the level of understanding on safety and health at their workplace. The result of the Star ranking model showed that the workers had a one star basic knowledge of safety and health at their workplace. Therefore it is recommended that food processing factories should comply with a wide array of Occupational Safety and Health Administration (OSHA) regulations to ensure safer working environment in food processing factories. The study found that safety training seminars and workshops could reduce injury rates at workplace.

Keywords: Safety, Food, Processing, Accident, Model

Introduction

Many food processing jobs involve repetitive, physically demanding work. Food manufacturing workers are highly susceptible to repetitive-strain injuries to their hands, wrists, and elbows. This type of injury is especially common in meat- and poultry- processing plants. A report of (GHM, 2013) that in 2012, there are 12 cases of fatal and 500 cases of nonfatal accidents involving food processing factories in Minna. This according to (Usman, 2013) is as lack of knowledge among the works of the factories of safety and health at workplace. But according to (Ridley, 1986), accident doesn't just happen, they are cause and that 99% of the accidents are caused by either unsafe acts or unsafe condition or both.

Materials and Methods

Three (3) food processing factories were selected for the study. One is a meat processing factory, while the others two are grain processing factory. All the factories are with Minna metropolis. Minna is the capital of Niger State with total area of $76,363\text{km}^2$ (29,484 Sq.M) and its rank first among the 36 state. It has a population of 3,950,249 and rank 18th among the state of federation Nigeria. The state shares boundaries with the federal capital of Nigeria.

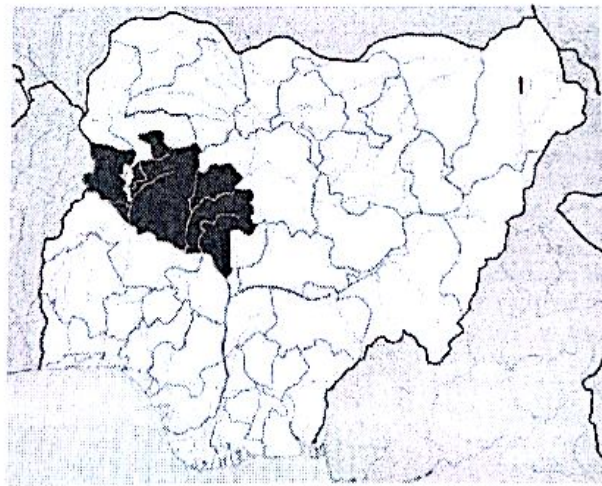


Fig. 1. Map of Nigeria Showing Niger state in red

In each factory selected within Minna, 10 questionnaires were administered on 10 workers, making it a total of 300 questionnaires. The questionnaires were well design and administer in all the factories. Star ranking model were used to analysis the average scores, the star ranking provide the level of understanding of safety measures among the workers and enable the management to build in safety in design for major work.

Results and Discussion

Table 2 Result of the Percentage Analysis.

Factory 1. (Meat)	Factory 2. (Grain)	Factory 3. (Grain)
36%	24%	28%

Source: Researcher Analysis.

The table above shows the result of the 3 factories, by using percentage in order to determine the percentage level of understanding of safety among the food processing factory. The average scores of the 3 factories is 29.33%, using the star rating table below, the factories are 1- star in safety ranking. The score justifying the ranking, Stars awarded ranges from 1 star to 5 stars as shown in the table below:

Table 3 Star Ranking

SHASSIC (score %).	Star(s) Awarded.	Justification.
85 to 100	**** *	Potential and significant workplace high risks/hazards are managed and documented.
70 to 84	*** *	Potential and significant workplace high risks/hazards are managed and documented but there are few low risks work activities are neglected.
55 to 69	** *	Potential and significant workplace high risks/hazards are managed and documented but there are few medium risks work activities are neglected.
40 to 54	* *	Potential and significant workplace high risks/hazards partly managed and not properly documented.
39 and less	*	Potential and significant risks/ hazards poorly managed and not properly documented.

Source: CIDB CIS 10: 2008.

Conclusion

The analysis carry out under result and discussion, reveal the actual position of the knowledge of food processing workers as regard to their safety at workplace. Therefore it can be concluded that the food processing workers have poor knowledge of potential and significant risks/hazard at their workplace. Adequate Safety training, seminars and workshops can improve workers understanding of safety at workplace which in turn can reduce accidents rate.

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