

THE RELATIONSHIP AMONG WORK SYSTEM, WORKPLACE HAZARDS AND EMPLOYEE'S BEHAVIOUR: A STUDY OF SELECTED STAFF OF NIGERIA EAGLE FLOURMILL, IBADAN

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ABSTRACT

The study examined the relationship between work system, workplace hazards and employees behaviour. It aimed at addressing the issue of how work can be structured in order to reduce workplace hazards and produce affirmative employee's work behavior.

The study uses survey research method. Participants in the study were 120 staffs of Nigerian Eagle Flourmill, Ibadan who were selected through stratified and simple random sampling techniques. Data were collected via responses elicited using the questionnaire instrument. Results show that there is a significant relationship between work system, workplace hazards and employees behaviour. The findings were discussed with reference to relevant empirical literatures, and with recommendations for management of organizations both for practice and future research highlighted.

KEYWORDS

Work system, workplace hazard, employees, behaviour, organization

INTRODUCTION

Industrial sociologists and management theorists have, for several years, been concerned with how best work activities can be structured in order to produce safe working environment and affirmative employee's behavior; however, there appears to be no agreement among scholars of these disciplines. For example, Frederick Taylor's Scientific Management sought to resolve these problems from managerial perspectives and argues that man is naturally lazy, selfish and dislikes work hence; work should be design through the application of scientific knowledge to work process (Adesina, 2005).

In contrast, McGregor's theory (Y) describes man as one who sees work as a play (Onyeonoru, 2005). Nevertheless, work is still a precondition for human development, family sustenance and

nation's building. Otopo (2000) explicitly emphasizes the importance of work in the life of human beings when he states that in all human societies, no matter how small, the members must produce goods and services in order, at least, to survive-quench thirst, satisfy hunger pangs and provide shelter. He therefore concluded that every aspect of work should be structured to the overall effectiveness and profitability of an organization.

The process of work structuring that includes division of labour, tasks performed, who perform them and how they are performed in the process of making a product or providing a service to internal or external customers is referred to as 'work system' (Alter, 2006). Evidences have shown that many work organizations are undergoing massive changes in the ways in which work is organized, often made possible by improvement in information and communication technologies (Landsbergis, 2003; Alter 2006; Swaen, et., al 2004). The new forms of work organization includes; combined jobs, multi-tasking, teams, telecommuting, electronic performance monitoring, use of temporary workers, contract workers and alternative work schedules, are being introduced with very little attention to it potential to hurt workers (Smith, et., al 1992; NIOSH 2002; Swaen, et., al 2004).

More so, work restructuring can result in intensification of work, leading to working faster and harder. This work intensification may be increasing stress on the job, with low worker control over the work, often coupled with higher job demands. For instance, the vast majority of workplaces in the U.S. have gone through formal or informal restructuring of work. The introduction of computers in every sector of the economy has created changes in work processes that can negatively impact workers' health and safety. One measure of change is in the number of hours that workers spend on their jobs. Van der Hulst (2003) reported that there has been steady increase in number of hours worked annually in United States over the past couple of decades to the point where American workers work more hours than workers in any other major industrialized country. Similarly, Dembe, Erickson, Delbos, and Banks, (2005) submitted that overtime hours, including mandatory overtime, have also risen in the United States.

In developing countries, Linda, Mark and Marilyn (2006) and Kiwekete (2010) observed that improper workplace design, ill-structured jobs, mismatch between worker abilities and job demands, adverse working environment, poor human-machine system design and inappropriate management programs affect workers health and attitude to work. In corroborating this, Meswani (2008) submitted that 2.9 billion workers are exposed to hazardous risks at work annually and 2 million deaths are attributable to occupational injuries globally.

More explicitly, International Labour Organization (2009) reveals that the figure (2 million workers die each year from work related accidents and diseases) is probably an underestimation because data for estimating work-related illness and injury are inadequate in many developing countries such as Nigeria because majority of workplace accidents goes unreported. Consequently, employees may develop counter-productive behaviour when their psychological and social needs are not adequately compensated by the management (Balsari, Ceilo and Zanuttini, 1999; Major, et., al 2002). With this in mind, the objective of this study is to examine the relationship among work system, workplace hazard and workers behavior in Nigeria.

LITERATURE REVIEW

WORK SYSTEM

System is the set of things working together as part of a mechanism or interconnecting network which activities are coordinated toward achieving a purpose. In organizational settings, system encompasses the interaction of human, information, physical and other resources to produce goods and services for internal or external customers (Alter, 2006). It is made up of parts; each part can affect the way other parts work and the way all parts work together will determines how well the system works (Alter, 2006; Adesina 2005).

Wayne (2002) defined work system as the creation of series of tasks by which organizational work load can be performed and carried out as required. These tasks include purchasing materials, selling services, hiring employees, responding to customers etc. Similarly, Rask and Johansson, (2008) noted that any organization that wishes to carry out its mission successfully must have functioning systems that allow it to carry out its work effectively. More so, Steijn (2001) observed that work system allows everyday tasks to operate in a coordinated manner and provide a basic framework to produce services and products. Thus, it is a vital tool for influencing the quality of working life and effectiveness of workers. Steijn further identified three common types of work system in work organization, which includes; the traditional system (Tayloristic), sociotechnical system and lean teamwork.

TYPES OF WORK SYSTEM

TRADITIONAL SYSTEM (TAYLORISTIC)

The Tayloristic system (TS) was introduced in the early 20th century; it insures all work being done in accordance with the principles of scientific management (SM)” and finally “division of work and shared responsibility between management and workman”. In tayloristic system each worker is expected to have well defined work task, which formed the base for workers training as well as feedback on performance and pay according to measured output (Taylor, 1911). The work is expected to be horizontally divided to the level of an individual worker, while further division of work and shorter work cycles is not included.

Many work organization adopts this approach in order to keep work systems under control and to reduce uncertainties connected with work activities however, when the organization’s environments become more and more complex-then more effort has to be put into reducing uncertainties that may jeopardize the effectiveness of the whole system (Adesina, 2005; Rask and Johansson 2008). Nevertheless, organization theorists and work scientists have established clearly that tayloristic work system has more negative effects on organizational effectiveness than other forms of work system design- it prescribe work processes in miniscule detail and spending much effort on supervising the adherence to prescribed procedures which is sometimes difficult for workers to follow hitherto (Steijn 2001; Alter 2006; Grote 2004; Pruijt, 2003).

SOCIOTECHNICAL SYSTEM

Sociotechnical system (STS) was developed by F. Emery, E. L. Trist and others at Tavistock Institute during the 1950s and onward in opposition to the Tayloristic work systems. The approach viewed work organization as a system with two integrated parts: social system (people) and technical (technology). It proposes that both these parts must be considered concurrently in order to create the conditions for successful organizational performance. With the introduction of the social system, STS drew the attention to team work that operates within a production or service delivery process in work system.

Also, STS promotes limited horizontal division of work (integration). One example is when Emery (2009) claims that, while fractionation (or segregation) has a positive effect on cost at lower degrees, the effect is the opposite at higher degrees of fractionation. STS stresses the importance of giving the group and the individual worker control on their own work task (Rask and Johansson 2008). It disagrees with the rational system perspective that believes in standardizing and routinizing work demands in order to enhance work performance while it supports the view that work organization should focus on the social psychological aspects of work and job characteristics required in work system (Chryssolouris, 2006; Pruijt, 2003). In situations of high uncertainty, socio-technical approach emphasizes the reduction of jobs to simple tasks that workers can be quickly trained and replaced if necessary, put workers in roles rather than jobs by training workers for multiple roles and allow them to be self-regulating (Rask and Johansson, 2008).

LEAN TEAMWORK

Lean production (LP) is an overall approach to work organization that focuses on elimination of any “waste” in the production/service delivery process (Womack and Jones, 2003). The functioning of lean teamwork is however performed in complex environments with heritage and long experience from Tayloristic and sociotechnical production systems. For instance, major auto companies like Ford has its Ford Production System, Chrysler has its Chrysler Operating System, GM has its textbook of the manufacturing practices of Lean Manufacturing and other sectors in Canada are moving to lean production to cut production cost and to enhance competitiveness (Womack and Jones, 2003).

Commenting on enterprise restructuring and work organization, Rask and Johansson (2008) observed that the Toyota production system which includes the “continuous improvement”, “just-in-time production”, and “work teams” are widely regarded as the route to world class manufacturing today. The three elements of lean production are briefly examined below:

- **Continuous Improvement:** A process for continually increasing productivity and efficiency, often relying on information provided by employee involvement groups or teams. Generally involves standardizing the work process and eliminating micro-breaks or any “wasted” time spent not producing/serving.

- **Just-in-Time Production:** Limiting or eliminating inventories, including work-in-progress inventories, using single piece production techniques often linked with efforts to eliminate “waste” in the production process, including any activity that does not add value to the product.
- **Work Teams:** Work teams operate within a production or service delivery process, taking responsibility for completing whole segments of work product. Another type of team meets separately from the production process to “harvest” the knowledge of the workforce and generate, develop and implement ideas on how to improve quality, production, and efficiency.

Furthermore, Linda et., al (2006) and Kiwekete (2010) assumed that properly structured work groups can provide incentives, assistance, and social support better than individual job design programs. However, Niepce and Molleman (1998) evaluated sociotechnical system and lean teamwork against the Tayloristic work system and they concluded that the most obvious differences concern control and coordination of work. Workers are expected to have the responsibility, knowledge and authority needed for keeping machinery running and material flowing through the production system.

However, Dankbaar (1997) claims that lean teamwork appears as an extension rather than a successor to Tayloristic mass production system. Because of the intricacy of human behaviour and the dynamics of organizational situation, most organization go about managing workers in such manners as could undoubtedly produce sub-optimal results, thereby jeopardizing the chances of the organizations realizing their set goals and objectives efficiently. In addition, improper work designs do bring about organizational reactions in a form of employee dishonesty, redundancy and violence that causes losses to the organisation (Fagbougbe et., al 2012).

WORK-RELATED HAZARDS

The World Health Organization (2002) defined hazard as any source of potential damage, harm or adverse health effects on something or someone under certain conditions. However, once a hazard becomes "active", it can create an urgent situation in the place of its occurrence. Hazard can occur from natural process, man-made activity related hazard, deadly forces or retribution. However, work-related hazard is the concern here.

Bello (2010) defined work-related hazard as the risk to the health of a person usually arising out of employment. It can also refer to occupational, material, substance, process or situation that predisposes or itself causes accidents or disease at work place. Workplace hazards are brought about by two broad categories of causes namely “unsafe work conditions” and “unsafe work behaviors” (Kalejaiye, 2013). However, workplace related injuries are preventable with the use of appropriate occupational safety and health services (Igor 1998; WHO 2004). Work place hazards were classified by Evans, Head and Speller (1994) under the following categories which include:

(i) Mechanical hazards include: By type of agent: Impact force, Collisions, Falls from height, Struck by objects. Confined space Slips and trips, Falling on a pointed object Compressed air/high pressure fluids (such as cutting fluid), Entanglement , Equipment related injury

(ii) Types of Injuries: Crushing, Cutting, Friction and abrasion, Shearing, Stabbing and puncture.

(iii) Physical hazards: Noise, Vibration, Lighting, Barotrauma (hypobaric/hyperbaric pressure), Ionizing radiation , Electricity, Asphyxiation, Cold stress (hypothermia) , Heat stress (hyperthermia), Dehydration (due to sweating).

(iv) Biological hazards include: Bacteria, Virus, Fungi, Mould, Blood-borne pathogens, Tuberculosis.

(v) Chemical hazards include: Acids, Bases ,Heavy metals ,Lead, Solvents, Petroleum, Particulates ,Asbestos and other fine dust/fibrous materials , Silica, Fumes (noxious gases/vapours) ,Highly-reactive chemicals.

(vi) Fire, conflagration and explosion hazards: Explosion, Deflagration, Detonation, Conflagration.

(vii) Psychosocial issues include: Work-related stress, whose causal factors include excessive working time and overwork , Violence from outside the organisation, Bullying, which may include emotional and verbal abuse , Sexual harassment , Mobbing , Burnout , Exposure to unhealthy elements during meetings with business associates, e.g. tobacco, uncontrolled alcohol (Raphael, 2008).

(viii) Musculoskeletal disorders: Injuries to bones and muscles and deformities are avoided by the employment of good ergonomic design.

WORKPLACE HAZARDS IN NIGERIAN CONTEXT

In Nigeria, many workers are dying and some have sustained work-related diseases which vary from minor irritations to injuries due to high exposure to hazardous and exploitative working conditions (Kalejaiye, 2013). The number of work-related hazards and diseases continue to increase as more workers are employed to work in factory of obsolete machines with safety guards removed and companies simply cut corners on safety (Afolabi, Fajemonyomi, Jinadu and Bogunjoko, 1993).

Kalejaiye (2013) observed annual mortality rate of 1 249 per 100, 000 workers in Nigeria in past decade. Similarly, Abongomera, (2008) submitted that over 200 work related deaths occur in Nigerian work place while about 50 million workers are exposed to workplace fatalities (i.e. high enough to disable them) annually. More finding revealed that no fewer than 400 workers have lost their lives in the powder sector in the last two years while over 100 cases of work-related accidents occurred in the maritime sector with over ten deaths, numerous incapacitations and

innumerable serious body injuries (). This is an astronomical figure that remains completely below the radar and the real gravity of the situation more often than not goes unrecorded. Another is the fire incident that razed a plastic factory in Ikorodu, Lagos in 2002 where many workers were roasted to death at night when the owners of the company locked the workers in the factory and went to sleep.

Furthermore, Bello (2010) revealed that mill operators suffers high rate 83% of upper limb, back and lower injuries when moving planks of wood into the machines (Bello 2010). Also, Adebisi et al. (2005) estimated the cost of accidents in agro-allied industries in Southwestern Nigeria at 87.89 million dollars annually. In addition, Nigerian Institute of Safety Professionals (2000) reported that overall 11,000 people were injured due to on-the-job accidents each year in chemical industry alone in Nigeria. In many workplaces hazard victims band their families receive little or no compensation which put them in a more vulnerable position in the society (Kalejaiye, 2013). Consequently, employees develop counter-productive work behavior like absenteeism, violence, indolence and redundancy which in a way affect their productivity and effectiveness. Thus, managers should treat employees well and provide adequate compensation for workers in the best interest of the organization (Fagbounge et., al 2012).

CONCEPT OF BEHAVIOUR

Behaviour is the actions or reactions of a person or animal in response to external or internal stimuli; conduct; manners or deportment, especially good manners; general course of life; treatment of others; manner of action; the activity of an organism, especially as measurable for its effects; response to stimulus; the functioning, response or activity of an object or substance.” Behaviour reflects a person’s likes and dislikes towards other persons, objects, events and activities in their environment. It can be social in nature (for the good of the community) or anti-social in nature (unacceptable to the community), as in the manner of conducting oneself according to social norms (or not). Social behavior constitutes any act that has benefit to others in the family or community.

It engender worldwide goodwill, peace, and total love for all people regardless of gender, race, colour, religion, social status, sexual orientation, disability, national or social origin, political or other opinion, or condition. While anti-social behavior is behavior that is unacceptable to other people (the community), behavior that violates another person’s right not to be adversely affected in some way. Such behavior includes arrogant, bullying, betrayal, harassment, and sarcasm which may therefore be defined as violence.

It is important to know about employee’s behaviour because it affects their approach toward work system, management strategies, remuneration, benefits, hazards, promotion or anything that might generate positive or negative reactions (Driskill and Brenton, 2005). Employees behaviour can be classified into internalisers and externalisers (Driskill and Brenton, 2005).The internalisers are more attracted to work situations than externalisers who are more likely to become emotional (have a meltdown) on the job, because they have a lower tolerance for job-induced frustration (My boss or my co-workers should handle it!). An employee (in his self-

absorption) who is prone to outbursts may not realize that his behaviour makes others very uncomfortable, and therefore he ignores risks to his effectiveness in the short term and to his career in the long term (Driskill and Brenton, 2005). Internalisers are more trusting and dismiss job failure and frustration more readily: perhaps they are more resilient than externalisers in this regard. More so, they prefer leaders who let them participate, and they are sensitive to organizational attempts to influence their thinking and behaviour. Thus, one of the key targets of managers should be to make connection between employee behaviour and their performance (Seijts and Crim 2006; Lynn et al., 1990).

THEORETICAL FRAMEWORK

AFFECTIVE EVENTS THEORY

Affective events theory (AET) is a model developed by Weiss and Cropanzano (1996) to discover how emotions and moods influence job performance and job satisfaction. AET proposes that organizational events are proximal causes of effective reactions. By implication, “things happen to people in work setting and people often react emotionally to these events (Weiss & Cropanzano, 1996). It suggested a hypothesized relationship between moment-to-moment emotions and outcomes such as effectiveness of work system, effect of work-related hazards and employee’s reaction to organizational behaviour (Alter, 2006; Steijn 2001).

The model increases the understanding of links between employees and their emotional reactions to things that happen to them at work. It believes that work modeled includes hassles, autonomy, job demands, and emotional labour and uplifting actions of their reactions. This emotional response intensity therefore affects job performance and satisfaction. Furthermore, affective events theory also proposes that stable work features such as job scope predisposes the occurrence of certain types of affect producing events. For instance, an enriched job leads to events involving feedback, task accomplishment, and optimal challenge that may result in happiness and enthusiasm.

RESEARCH HYPOTHESES

Arising from the background of the study and the subsequent review of literature, the following hypotheses were generated for testing:

H1: There will be a significant relationship between work system and employees behavior.

H2: There will be a significant relationship between work-related hazard and employee’s behavior.

H3: There will be a significant relationship between work system, work-related hazard and employee’s behavior

METHODOLOGY

DESIGN

Survey method of research design was used for the present study.

POPULATION AND SAMPLE

The target population for this study comprised all the employees of Nigeria Eagle Flourmill, Ibadan, Nigeria, put at 810. The population consists of men and women above (18) twenty years of age. The sample was made up of one hundred and twenty employees randomly selected from four departments of the said organization for this study.

PARTICIPANTS

The respondents for this study comprised of 120 employees from 4 key departments namely; Human resource, Financial, Production and Supply departments in the organization. A total of 67 (55.8%) respondents were males, 53 (44.2%) were females, 68 (56.7%) were single, 31 (25.8%) were married, 13 (10.8%) were widowed while 8 (6.7%) were divorced. In the sample, 43 (35.8%) of the workers were aged 18-23years, 38 (31.7%) of 24-30 years, 26 (21.7%) were 31-42years and 13 (10.8%) aged 43years or above. With regards to educational attainment, 49 (40.8%) had Senior Secondary Certificate Examination, 42 (35.0%) had a Degree certificate or Higher National Diploma, while 29 (24.2) had Ordinary National Diploma. The participants consist of 59 (49.2%) junior staff, 33 (27.5%) intermediate staff and 28 (23.3%) senior staff. The average job tenure was 3.83 years. The demographics and employment distribution of respondents is presented in Table 1.

Variables	Frequency	Percentage
Sex		
Male	59	52.7
Female	53	47.3
Marital Status		
Single	60	53.6
Married	31	27.7
Widowed	13	11.6
Divorced	8	7.1

Age		
18-23years	35	31.3
24-30years	38	33.9
31-42years	26	23.2
43 years or above	13	11.6
Educational Qualification		
SSCE	41	36.6
OND	42	37.5
Degree/HND	29	25.9
Cadre		
Junior	59	52.7
Intermediate	33	29.5
Senior	20	17.9

Source: Field Survey, 2012

INSTRUMENT

The instrument used for the study was a closed-ended questionnaire. Two instruments were used in the study. These include the Organizational Citizenship Behavior Scale and High Performance Work System Scale.

1. WORK SYSTEMS SCALE

Work system was measured by 15-item questionnaire adapted from high performance work system checklist (HPWSC). The measure is a self-report scale that elicits information on how high performance work system can only be achieved through employees who display greater effort and behavioral attributes to help the firm succeed (Guest, 1997). The scale is a five-point Likert response scale ranging from 1 (strongly disagree) to 5 (strongly agree). The survey has a Cronbach alpha of 0.87.

2. WORKPLACE HAZARDS SCALE

Workplace hazards scale was measured by 20-item questionnaire adapted from hazards identification checklist (HIC). The measure helps to identify the potential hazards to workers' safety and health from manufacturing, installation and maintenance to decommissioning and recycling. Scoring was based on a five-point Likert format ranging from 1 (strongly disagree) to 5 (strongly agree). The reliability test yielded internal consistency co-efficient of 0.73. Additionally, it gives examples of the type of action at a technical, organizational and individual level that can be put in place to prevent or reduce the risks.

3.EMPLOYEE’S BEHAVIOR SCALE

Employee’s behaviour was measured by 20-item instrument designed by Fox, Spector, Goh, Bruursema, & Kessler, (2010) to assess the frequency of organizational citizenship behaviors performed by employees. The items have quite satisfactory psychometric properties to measure employee behaviour in work organization. Respondents were instructed to rate the seriousness of each behaviour based on a five point Likert scale ranging from 1, Never, to 5, Every day. The survey has a Cronbach’s alpha of 0.89.

PROCEDURES

A total of 120 questionnaires were distributed, 112 returned (93.3%) with 8 not properly completed and were discarded, giving a response rate of 93.3%. The responses were received over a period of two weeks and were used for data analysis. Data analysis was done through one-way analysis of variance (ANOVA) and independent t-test. The stated hypotheses were tested at 0.05 level of significance.

ETHICAL CONSIDERATIONS

Authorization was sought from the management of the organization before conducting the field work. Likewise, consent of the respondents were sought and obtained before the questionnaires were distributed. All the respondents were made to know that they are free to back out of the study at any point in time and that information obtained from them as well as their identities will be kept anonymous and strictly confidential.

RESULTS

Hypothesis 1: There will be a significant effect of work system on employee’s behavior in work organization. The hypothesis was put to test, using analysis of variance. This was based on items measuring performance of work system and items measuring employee’s behaviour. The results obtained from the test are summarized in table 2.

Table 2: ANOVA showing the effect of work system on employee’s behaviour

Source of variable	Sum of squares	Df	Means square	F	P	Remark
Within group variance	142.405	98	1.238	8.800	0.000	Sig
Between group variance	43.578	13	10.839			
Total variance	185.983	111				

Source: Field Survey, 2012

Significant at P>.05

Table 2 revealed that there was a significant effect of work system on employee’s pro-social behaviour in work organization ($F = 8.800$, $df = 13/98$, $P > .05$). The result gives support to the hypothesis. Therefore, the first hypothesis was accepted.

Hypothesis 2: There is a significant relationship between workplace hazards and employee’s behavior. The hypothesis was put to test, using analysis of variance. This was based on items measuring performance of work system and items measuring employee’s behaviour. The results obtained from the test are summarized in table 3.

Table 3: ANOVA showing the relationship between workplace hazards and employee’s behavior

<i>Source of variable</i>	<i>Sum of squares</i>	<i>of Df</i>	<i>Means square</i>	<i>F</i>	<i>P</i>	<i>Remark</i>
Within group variance	151.949	92	1.321	4.998	0.001	Sig
Between group variance	12.842	19	6.551			
Total variance	164.791	111				

Source: Field survey, 2012

Significant at $P > .05$

Table 3 showed that there was a significant relationship between workplace hazards and employee’s behaviour in the organization ($t=4.998$, $df=19/92$, $P > .05$). The result gives support to the hypothesis. Hence, the second hypothesis is accepted.

Hypothesis 3: There is a significant relationship among work system, work-related hazard and employee’s behavior. The hypothesis was put to test, using analysis of variance. This was based on items measuring effect of work system and workplace hazards on employee’s behaviour. The results obtained from the test are summarized in table 4.

Table 4: ANOVA showing the relationship among work system, workplace hazards and employee’s behavior

		<i>Sum of squares</i>	<i>Df</i>	<i>Means square</i>	<i>F</i>	<i>P</i>	<i>Remark</i>
Work systems	Within groups	37.260	79	0.32	8.89	>0.05	Sig
	Between groups	11.532	32	2.90			
	Total	48.792	111				
Workplace hazards	Within groups	51.148	79	0.45	13.22		
	Between groups	23.519	32	5.90			
	Total	74.667	111				

Source: Field Survey, 2012

Significant at $P > .05$

The result from Table 3 shows that sum of squares between and within groups for work system is 11.532 and 37.260 respectively while that of the workplace hazards is 23.519 and 51.148 for between groups and within groups respectively. The mean square for work system between and within groups is 0.32 and 2.9. For workplace hazards, it is 0.45 and 5.9 respectively.

The degree of freedom (df) for both variables between and within groups is 32 and 79 respectively. The calculated F coefficient for both variables is 8.89 and 13.22 which comes out significant in both ways. Therefore, there is a significant relationship between work systems, workplace hazards and employees pro-social behaviour in work organization. The result gives support to the hypothesis. Hence, the third hypothesis is accepted.

DISCUSSION

Hypothesis 1 which stated that there will be a significant effect of work system on employee's behavior was accepted. The result showed that work systems are possible antecedent of organizational behavior. The finding support Rask and Johansson (2008) who noted that any organization that wishes to carry out its mission successfully must have functioning systems that allow the employees to carry out their work effectively. In line with this, Steijn (2001) reported that work systems are vital tools to influence quality of working life and attitude of workers.

More so, Linda, Mark and Marilyn (2006) and Kiwekete (2010) observed that improper workplace design, ill-structured jobs, mismatch between worker abilities and job demands, adverse environment, poor human-machine system design and inappropriate management programs sometimes cause workplace hazards which affect workers health and attitude to work. In situation where work system produce poor employee's behaviour and their health being greatly injured, their level of functioning at work will become greatly reduced. It is imperative therefore; that the work activities should be structured in a way that met the psycho-social needs of employees in order to become more efficient at work and to assist the organization in realizing their set goals and objectives resourcefully.

Hypothesis 2 which stated that there is a significant relationship between workplace hazards and employee's behavior was accepted. The result revealed that workplace hazards are organizational events which influence employee's behaviour and attitude to work especially in workplace that lack adequate compensation for victims. The finding corroborate with Weiss & Cropanzano (1996) who submitted that organizational events such as workplace accident, promotion, transfer, delay or cut in employees wages, etc that employees react emotionally to. In line with this, Driskill and Brenton, (2005) noted that employee's reaction to organizational events could be positive or negative. Positive reaction is beneficiary to both parties (employees and organization) however, negative reaction cause employees' withdrawal of behaviors that benefits the organization.

It is not gainsaying the fact that employee who is affected by workplace hazards and not adequately compensated will exhibits personal and work behavioural problems like bullying, absenteeism, sabotage, avoidance, dissatisfaction, resignation or turnover. It should be noted that negative personal and work behaviour may not bring about positive organizational outcomes. In situations where the employees adopt negative personal and work behaviours like absenteeism, apathy, dissatisfactions, tardiness irresponsibility, irritability demoralization and withdrawal from colleagues, efficient attainment of organizational goals cannot be guarantee. For this

reasons, organization may lose their customers to their competitor and may not receive expected income or profits.

Therefore, managers should be specifically concern with safety and welfare of employees of all categories through provision of practical measures of protecting the health of employees in workplace. On the other hand, employees should bear in mind the overall organizational goals and adopts cognitive coping behaviours such as positive thinking and actions when they sustained injury at work.

Hypothesis 3 which state that there is a significant relationship among work system, work-related hazard and employee's behavior was accepted. The result established that there exists a significant connection among work system, workplace hazards and employees behaviour. The finding upholds some of the principles of Tayloristic approach which assume that the way at which work activity is structured determines the nature of workers behaviour in work organization. To him, work activities should be broken down to simplest tasks in order to ensure rational utilization of organizational resources.

However, Niepce and Molleman (1998) opined that when workers are not allow to take responsibility, knowledge and authority needed for keeping machinery running and material flowing through the production system may result in organizational behavioural change which may reduce their effectiveness, commitment and dedication to work. In accordance to this, affective events theory (AET) suggested emotional relationship between employee's behaviour and things that happen to them at work. It further stated that work modelled includes hassles, autonomy, job demands, and emotional labour and uplifting actions of employee's reactions which therefore affects worker performance and satisfaction. This is consistent with Alter (2006) and Steijn (2001) who reported that work activities if not properly designed may generates workplace hazard which in turn affect both interactive and psychological wellbeing on employee's behaviour in work setting.

According to Driskill and Brenton, (2005), some employees are more likely to become emotional (externalizers) on the job; because they have a lower tolerance for job-induced frustration (My boss or my co-workers should handle it!). An employee (in his self-absorption) who is prone to outbursts may not realize that his behaviour makes others very uncomfortable, and therefore he ignores risks to his effectiveness in the short term and to his career in the long term. While some are more trusting and dismiss job failure and frustration more readily: perhaps they are more resilient than externalisers in this regard. More so, they prefer leaders who let them participate, and they are sensitive to organizational attempts to influence their thinking and behaviour. The study thus concludes that work system and workplace hazards can be relatively strong predictors of counter-productive workplace behaviours. Therefore, the key targets of managers should be how to make connection between work system, workplace hazards and employee behaviour.

CONCLUSION AND RECOMMENDATIONS

The study examines work systems, workplace hazards and employee's behaviour in Nigerian Eagle Flourmill Ibadan, Nigeria. Base on the finding conclusion are drawn; that if work system design and workers compensation for workplace hazards are deemed unfair or unjust, employees exhibit feelings of anger, dissatisfaction, outrage, and resentment and these feelings may result in employees' withdrawal of behaviors that benefits the organization and production deficiency. We consider this result to be of great importance for managers who seek to understand management implications of industrial workplace sabotage and counterproductive employee behaviour in organisations. However, this study recommends that:

- i. Management should ensure that work activities is structured in a way that convene the psychosocial needs of employees in order to make them more efficient at work and to assist the organization in realizing their goals and objectives resourcefully. This can be achieved by combining three work system designs in structuring the tasks to be performed by employees in the workplace.
- ii. Management should be concern with safety and welfare of employees of all categories through provision of practical measures of protecting the health of employees and adequate compensation scheme in workplace. It is hoped that when employees are given adequate support by their employers or when their needs are adequately met many of them will become more productive, less aggressive and happy to carry out their contractual task effectively.
- iii. Employees should also bear in mind the overall organizational goals by adopting cognitive coping behaviours such as positive thinking when they sustained injury at work.
- iv. Both parties (management and employees) should see work organization as a system with interactive parts and be sensitive to any attempts that may affect the functioning of any part of the system in order not to jeopardize the whole system.
- v. The key targets of managers should be how to make connection between work system, workplace hazards and employee behaviour so as to increase productivity and maximize profits.

REFERENCES

- 1) Abongomera, T. 2008. Decent work and global strategy on occupational safety and Health on Guard Sustainable Safety and Health Practice. Vol 15 (1): 7-13
- 2) Afolabi, J. Fajemonyomi, M., Jinadu M. and Bogunjoko 1993. A Case Study of Occupation Health Problems of a Match Industry in Nigeria. Nigerian School Health Journal Vol. 8(1) pp: 17-23

- 3) Alter, S. 2006. *The work system Method: Connecting People, Processes and IT for Business Results*. Working System Press. Larkspur, CA.
- 4) Balsari, P., Ceilo, P. Zanuttini, R. 1999. *Risks for the workers in plywood manufacturing: A case study in Italy*. *Journal of Forest Engineering* 10 (2):12-15
- 5) Bello, R. 2010. *Assessment of injuries in small scale sawmilling industry of south western Nigeria*. University of Ibadan, Nigeria
- 6) Cherns, A., 1987. *Principles of Sociotechnical Design Revisted*. *Human Relations*. Vol. 40(3): p. 153-162.
- 7) Chryssolouris, G. 2006. *Manufacturing Systems: Theory and Practice*, 2nd Edition, Springer Verlag, New York.
- 8) Dankbaar, B., 1997. *Lean Production: Denial, Confirmation or Extension of Sociotechnical Systems Design?* *Human relations*, Vol.50(5): p. 567.
- 9) Dembe, A.E., Erickson, J.B., Delbos, R.G., and Banks, S.M 2005. *The impact of overtime and long work hours on occupational injuries and illnesses: new evidence from the United States*. *Occup Environ Med* 62:588-597.
- 10) Emery, F., 1977. *The Assembly Line - Its logic and Our Future*, in *The Socio-Technical Systems Perspective*, E.L. Trist, Editor.
- 11) Emery, F.E., 1993. *The Nine Step Model*, in *The Socio-Technical Systems Perspective*, E.L. Trist and H. Murray, Editors.
- 12) *Empirical Study towards the effects of Team and non-Teamwork'*, *New Technology, Work, and Employment*, vol. 16, no. 3, pp. 191-203.
- 13) Fagbougbe, B.O., Akinbode, G.A., Ayodeji, F. 2012. *Gender and organizational factors as determinants of workplace fraudulent behaviours in Nigeria: an empirical analysis*. *International Journal of Business Trends and Technology*. Vol.2 (2), pp: 11-21
- 14) Igor A. 1998. *Health Promotion in the work place: An international Journal of health development*. Vol. 19(4):390-396.
- 15) Kalejaiye, P. O. 2013. *Occupational health and safety: Issues, challenges and compensation in Nigeria*. *Peak Journal of Public Health and Management* Vol.1 (2), pp. 16-23
- 16) Kiwekete, H.M. 2010. *Psychosocial risk assessments-ensuring the well-being of employees*. *African Newsletter on Occupational Health and Safety*. 20 (2):38- 40.

- 17) Landsbergis, P.A. 2003. The changing organization of work and the safety and health of working people: A commentary. *J Occup Environ Med* 45(1):61-72.
- 18) Landsbergis, P.A., Cahill, J., and Schnall, P. 1999. The impact of lean production and related new systems of work organization on worker health. *J Occup Health Psychol* 4(2):108-130
- 19) Major, S.M., Klein, K.J., and Ehrhart, M.G. 2002. Work time, work interference with family, and psychological stress. *J Appl Psychol* 87:427-436.
- 20) Meswani, H. R. 2008. Safety and Occupational Health; Challenges and Opportunities in emerging economies. *Indian Journal of Occupational and Environmental Medicine*. Vol. 12: No. 1: 3-9.
- 21) National Institute for Occupational Safety and Health 2002. The Changing Organization of Work and the Safety and Health of Working People. NIOSH Publication No. 2002-116.
- 22) Niepce, W. and Molleman, E.1998. Work Design Issues in Lean Production from a Sociotechnical Systems Perspective: Neo- Taylorism or the Next Step in Sociotechnical Design? *Human Relations*. Vol. 51(3): p. 259-287.
- 23) Onyeonoru, I. P. 2005. Industrial sociology in Africa context. Ibadan: Samlad Press.
- 24) Ootobo, D. 2000. Industrial Relations. Theory and Controversies. Lagos Malt house press Ltd.
- 25) Pruijt, H. 2003. Teams between Neo-Taylorism and Anti-Taylorism. *Economic and industrial democracy*. Vol. 24(1): p. 77.
- 26) Rask K and Johansson, J. 2008. Similarities and Differences between Lean Production, Tayloristic and Socio-Technical Systems Revealed in the Methodology Characteristics Map Department of Human Work Science, Luleå University of Technology, Luleå, Sweden.
- 27) Steijn, B. 2001. 'Work systems, Quality of Working Life and Attitudes of Workers. An
- 28) Swaen, G.M.H., van Amelsvoort, L.P.G.M., Bultmann, U., Slangen, J.J.M., and Kant, I.J. 2004. Psychosocial work characteristics as risk factors for being injured in an occupational accident. *J. Occup Environ Med* 46(6):521-527.
- 29) Taylor, F.W., 1998. *The Principles of Scientific Management*. 1911, Dover Publications.
- 30) Van der Hulst, M. 2003. Long working hours and health. *Scand J Work Environ Health* 29(3):171-188.
- 31) Womack, J.P. and D.T. Jones, 2003. *Lean Thinking: banish waste and create wealth in your corporation*.

- 32) Womack, J.P., Jones, D.T. and Roos, D. 1990. The machine that changed the world. 1
- 33) World Health Organization 2004. Guidelines for conducting community surveys on injuries and violence 2004.
- 34) World Health Organization. Occupational Health Programs 1972;26(12):537-546.