

# WORK SAFETY COMPLIANCE AND EMPLOYEE PERFORMANCE IN TEXTILE MANUFACTURING COMPANIES IN KENYA

<sup>1</sup>Keraka Collins Nyantari, <sup>2</sup>Dr. Omwenga J., <sup>3</sup>Dr. Kilika J.M

<sup>1</sup>Department of entrepreneurship and procurement, Jomo Kenyatta University of Agriculture and Technology,  
Nairobi, Kenya

<sup>2</sup>Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

<sup>3</sup>Lecturer, Kenyatta University of Agriculture and Technology, Kenya

Correspondence Email: [ckeraka@gmail.com](mailto:ckeraka@gmail.com)

---

**Abstract:** There has been increased poor performance of textile industry in the recent past. This has been largely attributed to non-compliance of safety standards in the textile industry. The work environment consists of factors which introduce new dimensions to health, causing diseases and injuries which include, work accidents and exposure to hazards. In this regard, the purpose of this study was to determine the influence of worker's knowledge of safety standards on employees performance in textile manufacturing companies in selected counties in Kenya. The study population included all the textile manufacturing companies in export processing zone which are 22 under EPZ program. This study sampled 400 respondents; selection based on random sampling. Individual respondents were sampled using systematic random sampling technique. The first respondent was sampled using simple random sampling then the rest were sampled using an interval of 7. This study adopted a descriptive cross sectional research design. Data was collected using questionnaire and key informants interview. Data was revised, coded for computerized data entry. Statistical techniques that was used was Pearson correlation and stepwise analysis. Statistical methods applied include descriptive statistics (i.e. frequency percent, mean, and standard deviation) and tests of significance (Analysis of variance) which was done using the statistical package for Social Science (SPSS version 22.0) to ascertain relationship between independent and dependent variable. P-values were considered as statistically significant when less than 0.05. The relationship between workers' knowledge of safety standards and employee performance carried out using Pearson moment correlation showed that there was a significant positive relationship ( $r = 0.823$ ,  $P = 0.0001$ ). High level of knowledge of the workers on safety standards resulted into better performance of the employees in an organization.

**Keywords:** Employee performance, safety compliance, safety standards, textile industry.

---

## 1. INTRODUCTION

Employee performance is defined as whether a person executes their job duties and responsibilities as well. (Callidus, 2016). Many companies assess their employee's performance on an annual or quarterly basis in order to define certain areas that need improvement. Performance is a critical factor in organizational success. There is increasing evidence that providing a healthy and safe working environment has the potential to increase labour productivity. Most businesses implement health and safety measures to keep compensation costs down (Massey & Perry, 2006; Dorman 2000; Quinlan, 2001). There is evidence that occupational injuries and illnesses impact on productivity losses (Lamm, Massey and Perry, 2006). Research findings support the existence of an important link between a good working environment and the performance of a company. Thus, the quality of a working environment has a strong influence on productivity and profitability. (De Greef & Van den Broek, 2004)

Employee performance management is key in improving employee work performance. A study by Guest, Michie, Conway and Sheehan(2003) provides a useful theoretical model that suggests possible links between a series of managerial inputs and performance outputs. The inputs are business strategy, HR strategy and HR practices. The HR practices include induction, job design, recruitment and selection, appraisal, pay and reward, training and development, financial flexibility, harmonization, communication and job security. The outputs are effective HR outcomes, quality of goods and services, productivity and financial performance. Evaluating the effectiveness of these HR activities allows an assessment of how well they are working in practice.

The more HR practices are used, and the more effective they are, the better organizational performance is likely to be. HR effectiveness appears to demonstrate the link between HRM and business performance. (Guest *et al.*, 2003) Several studies have shown that there is a relationship between a better working environment and labor productivity (Ahmed, 2007) This is particularly relevant in Bangladesh, where the readymade garment (RMG) sector has played significant role in the socioeconomic development. The total contribution of RMG to exports is more than 76% of the total export earnings. The RMG sector has developed here rapidly because it labor intensive industry (Repon & Ahamed, 2005) that require ordinary technology, cheap labor and little capital. In 1984, the number of garments sold was 587; in 1998 the number stood at 2650 and now the number is 3300 in Bangladesh. In spite of these positive aspects, there have been at least 83 fire related incidents and 246 deaths since 1990 in the country (The Independent, 2006)

#### ***Work Safety Compliance:***

Safety Compliance is a behavior that affects the performance of safety record in an organization. It is the employees' adherence to the rules, regulations and procedures set by their organization, even when not monitored by their employer (Podsakoff *et al.*, 2000). Safety is the state in which the risk of harm by accident to persons or of property damaged is reduced to and maintained at or below an acceptable level through a continuous process of hazard identification and risk management. Workplace safety is emerging as one of the key risks management and regulatory compliance focus areas among many global companies. This is evident from a study conducted by Mearns *et al.* (2003) who found that accidents at the individual level and also workplace level are significantly associated with non-compliance or safety violations. Safety at workplace is key in improving worker productivity in an organization. Hence there is a remarkable interaction between health and safety at work on one hand and productivity on the other hand. According to the EU Community strategy 2007-2012 on health and safety at work, improving quality and productivity at work states can play a role in improving productivity.

This is due to the fact that the lack of effective protection to ensure health and safety at work can result in absenteeism, in the wake of workplace accidents and occupational illnesses, and can lead to permanent occupational disability. (ILO, 2006) The enormous economic costs of problems associated with health and safety at work inhibits increased productivity and affects the competitiveness of a business. Health and safety at work is one of the major key factors in improving productivity. Human capital is a prerequisite for a future-oriented development. This is why companies increasingly need qualified, motivated and efficient workers who are able and willing to contribute actively to technical and organizational innovations. Healthy workers working in healthy working conditions are thus an important precondition for the enterprise to work smoothly and productively (Lamm *et al.*, 2006).

A safety management system provides a systematic way to identify hazards and control risks while maintaining assurance that these risk controls are effective. (Spring, 2009)As with all management systems, a safety management system provides for goal setting, planning, and measuring performance.

A safety management system is woven into the fabric of an organization. It becomes part of the culture, the way people do their jobs (Evans *et al.*, 2008).The safety management system is composed of five components which include: knowledge of safety standard, Safety Promotional policies, Workers' Participation, Safety Communication and Management commitment. Management commitment is manifested when it carries out the following development of safety policy, safety risk assessment, safety assurance and safety promotion.

Safety knowledge that aids firms in strategic product and market development achieves differentiation and competitive advantage. Many firms view the acquisition of new knowledge as a route to competitive advantage. However, few firms fully realize the benefits of this highly valued knowledge (Hansen *et al.*, 1999). Knowledge of appropriate, safe work procedures and safety rules is essential. Employees are expected to follow established safety rules and maintain their work areas free of hazards by correcting unsafe conditions or reporting them to supervisors. Safety professionals can assist in conducting product related accident investigation. They can also evaluate product safety related training programs and offer comments on the company's product safety programs.

### ***Employee Performance:***

Every organization has been established with certain objectives to attain. These objectives can be attained by utilizing resources like people, machines, material and money. The most important resource out of all the resources is manpower. It plays an important role in performing tasks for accomplishing organizational goals. The question that may arise in many instances is why human resources are important. Human resources are intellectual property of the firm, they prove to be a good source of competitive advantage (Houger, 2006)

In order to succeed, organizations have to obtain and utilize human resource effectively. This will impact on the total production, sales, profit, progress and market position of the company in the market. Employee performance is the major dilemma of organizations in the current environment. Employee's good performance is very essential for the effectiveness of an organization. Employees are the basic source of profit and competitive advantage. So organizational activities involve in enhancing their employee performance is actually has the motive of organizational performance enhancement. It is important to identify the variables, perception about their jobs. Employees expect that it is the responsibility of the organization to enhance their performance through proper training programs, their expectation play a vital role in attitude development.

Employees are the lifeblood of the organization and most important resource, their behavior and attitude on the subject of HRM recognize in an important position (Guest, 2002) Employee satisfaction and yield is affected by employee performance. Managers think that capable workers are essential for successful business (Eskildsen & Nussler, 2000). Haider & Riaz (2010) and Malik et al., (2010) say that we can predict the performance of employees by giving the behavioral importance to employees when they are at work. Companies are striving to improve production. In the process, employees are overlooking safety procedures whilst attempting to reach performance targets (Moller, 2003; Probst & Brubaker, 2001). Because of performance pressure and time constraints, many workers engage in unsafe behaviors. They include short cuts that compromise safety compliance and can cause accidents.

### ***Textile Industry in Kenya:***

The garment and textile industry in Kenya dates from the colonial period. As early as 1954, the industry had a total of 74 enterprises employing 2,477 workers (Kinyanjui *et al*, 2004). Growth of textile industry after independence saw the local availability of fibers such as cotton, wool and sisal while synthetic fibers (nylon, polyester, acrylics) jute and linen as well as dyes, chemicals and resins were imported. (African Development and Economic Consultant Ltd, 1998)

The garment industry was one of the most important manufacturing activities in Kenya; it thrived mainly due to the protection offered to firms under the import substitution strategy and heavy government investment through its parastatal - Industrial and Commercial Development Corporation (ICDC). The hurdles that the textile industry faces in Kenya may change for the better with the government having embarked on initiatives to revive the sector which collapsed in the 1980s, mainly due to the increasing import of used clothes.

The garment sector has performed relatively well under the African Growth and Opportunity Act (AGOA) provision. In the last 12 years, the garment sector in Kenya has been principally driven by exports to the US under the AGOA initiative. According to ACTIF, (2010) there were over 170 large scale garment manufacturing units operating in Kenya outside the EPZ. In the EPZ there are 22 large companies. The garment sector still remains as the dominant sector within the EPZs accounting for 29% of all EPZ enterprises, 78% of total EPZ local employment, 56% of all EPZ exports, 52% of total EPZ sales and 30% of all EPZ private investments. As of December 2011, Kenya among other SSA countries was ranked as the leading exporter into US market under AGOA with a market share of 31.6% and export value of US\$ 261 Million.

A safe workplace reduces occurrence of work related accidents, diseases and insurance claims resulting in higher productivity levels and low production costs. In Kenya, lack of awareness of the OSH Act of 2007 undermines the safety and health of workers. This has partly contributed to the weak safety culture in the workplace and non-compliance with international safety and health standards (Republic of Kenya, 2015)

## **2. RESEARCH METHODOLOGY**

The study will use descriptive cross sectional study design. The descriptive cross sectional design involves making observations of a population or sample of the study at one point in time (Babbie, 2012). Cross-sectional studies provide a clear 'snapshot' of the outcome and the characteristics associated with it, at a specific point in time. This design will be chosen because it gives accurate measurements of population, characteristics and attributes. The design is useful in identifying characteristics of an observed phenomenon or exploring possible correlations among two or more phenomenon (Leedy, 2001)

**Data Collection Instruments:**

The study used both primary and secondary data sources. Primary data was collected using questionnaires and interviews that consisted of both structured and unstructured questions. Structured questionnaire was used to obtain data such as demographic characteristics of the study population. Unstructured questionnaire was used to obtain data on employee’s perception about safety standards. Secondary data was obtained from existing literature, books, journals and internet.

Data was sought using researcher administered questionnaires, key informant interviews who are the proprietors or in charge of each industry, direct observation and photography. The tools were developed from the literature review and organized according to research objective. A total of 400 questionnaires was administered by researcher to the sampled employees in the textile industries.

The questionnaires consisted of six sections; section A sought information regarding socio-economic and demographic characteristics, section B sought general information on safety compliance, section C sought information on employee performance, section C sort information on worker’s knowledge on safety standards.

Key informant interviews provided necessary information about the relationship between safety compliance and employee performance in sampled textile industries. Purposive sampling and snowball techniques was used to select the key informants for this study. Interview schedules was face to face contact with key contacts. This ensured that questions are clarified and unclear answers followed up. Note taking will be done during key informant interviews.

Direct observation of the respondents’ behaviour, reactions and feelings towards particular issues sought by the study provided qualitative data. The researcher also used photography to capture visual data in the field as evidence of situation of safety compliance in the textile manufacturing companies.

**3. DATA FINDING, ANALYSIS AND DISCUSSIONS**

**Demographic characteristics:**

A total 395 respondents in the textile industry were involved in this study. Out of this number, 46.8% were in the job cadre of tailoring spinners, 26.2% were garment technicians, 9.0% were production managers and 18.0% were from other job cadres in the industry.

The respondents were from different sections of the textile manufacturing process being sewing section (41.3%), finishing section (14.4%), cutting section (13.7%), store section (10.0%) and maintenance section (9.0%). According to the findings, sampled respondents had an average age of 30.53 years with a standard deviation of 7.738. The minimum age was 18 years while the maximum was 56 years.

Most of the respondents, 64% had secondary level of education as their highest level of education. 17.0% of the respondents had University/college education, 17.7% had primary education while 1.3% of the respondents had no formal education. The result showed that most of the respondents were, 50.6% were married, 37.5% were singles, and 8.1% were separated while 3.0% were widowed. This is illustrated by table 1 below.

**Table 1: Socio-economic and demographic characteristics N=395**

<b>Job Cadre</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Production manager	35	9.0
Tailoring spinners	185	46.8
Garment technician	104	26.2
Others	71	18.0
<b>Section of work</b>		
Sample section	28	7.1
Cutting section	54	13.7
Sewing section	163	41.3
Finishing section	57	14.4
Store section	40	10.0
Maintenance section	35	9.0
None committal	18	4.5
<b>Highest level of education</b>		
None (No formal education)	5	1.3
Primary	70	17.7

Secondary	253	64.0
University/College	67	17.0
<b>Marital status</b>		
Single	148	37.5
Married	200	50.6
Separated/divorced	32	8.1
Widowed	12	3.0
None committal	3	0.8
Total	395	100

**Employees Compliance to Safety Standards:**

The general information on employees' compliance to safety standards showed that 79.8% of the respondents were compliant with the safety standards. 20.3% were not compliant. The safety standards observed by the employees at the manufacturing industries mainly included appropriate use of fire extinguishers (52.7%) and correct work procedure (12.7%). This is shown by table 2 below.

**Table 2: Safety standards observed at manufacturing industries**

Safety standard	Frequency (N = 395)	Percent	Rank (1-most observed)
Appropriate use of fire extinguishers	208	52.7	1
Correct work procedure	50	12.7	2
Proper water disposals	48	12.1	3
Others	10	2.5	4
Not observed	79	20	
Total	395	100	

Employees who do not comply to the safety standards mainly do so because of ignorance of safety standards (60.4%), to save time in completion of work (21.5%), work peer pressure (to not comply to safety rules and regulations (15.3%) and other reasons (2.8%). This as shown in table 4.3 below

**Table 3: Reasons for non-compliance to Safety standards**

Reasons	Frequency	Percent	Rank (1-most observed)
Ignorance of safety standards	87	60.4	1
To save time in completion of work	31	21.5	2
Work peer pressure to not comply with safety rules and regulations	22	15.3	3
Others	4	2.8	4
Total	144	100	

**Constraints to improving safety standards:**

Constraints to improving safety standards in the manufacturing industries were; time limit, ignorance, lack of funds, lack of education, work load, lack of equipment, work peer pressure, work overload, high cost of safety products as shown in table 4.4 below.

**Table 4: Constraints to improving safety standards noted by respondents**

Constrain	Frequency	Percent	Rank (1-most experienced)
Time factor	53	13.25	1
Ignorance	34	8.5	2
Lack of funds	31	7.75	3
Illiteracy	26	6.50	4
Work load	15	3.75	5
Lack of equipment	9	2.25	6
Work peer pressure	8	2.00	7
Work overload	5	1.25	8
High cost of safety products	5	1.25	8

**The organizations actions to improve safety standards:**

To improve safety standards in the organization they do advocating for implementation of safety measures, advocate for the formation of safety policies, alert employees when there is fire by use of alarms, allow training of workers on safety standards. The organization show appropriate use of fire extinguishers to the employees, avail equipment, avail funds, carry out on job training to employees and create safety training programs. The organization improve correct work procedures and communicating safety culture in the organization

According to key informant interviews of some of the employees in the textile companies in the EPZ, in seven out of eight of the textile companies, management provides training on safety. This was mainly through the following ways; training to employees through various programs for example health and certify trainings under OSHA programs. The safety trainings includes first aid, health inspection for fitness to work. In one of the companies, the management has not been providing training and employees hope that they will start training workers on safety issues

**Workers knowledge on safety standards:**

Workers knowledge on safety standards was established by testing their views on a five point likerts scale comprising of ten items. The likerts scale range from 1 – 5 (1- strongly agree, 2-agree, 3-not sure, 4-disagree, 5-strongly disagree). Before analysis of the responses, reliability of the items on workers knowledge were established a Cronbach’s alpha of 85% (r = 0.850).

Majority of the workers 29.6% strongly agreed while 40.5% agreed that they had knowledge of safety standard, having a mean response of 2.22 with a standard deviation of 1.13. These workers were of the opinion that knowledge of safety standards improve employee performance, mean response 2.30 with a standard deviation of 1.19. This was strongly agreed by 29.1% and agreed by 39.0% of the workers.

**Table 5: Workers knowledge on safety standards in the industry**

Items	SA	A	N	D	SD	Mean±SD
Knowledge of safety standards	117 (29.6%)	160 (40.5%)	35 (8.9%)	75 (19.0%)	8 (2.0%)	2.22±1.13
Challenges relating to health and safety at work	68 (17.2%)	171 (43.3%)	41 (10.4%)	106 (26.8%)	9 (2.3%)	2.52±1.13
Abiding to health and safety rules	74 (19%)	146 (37.0%)	38 (9.6%)	124 (31.4%)	13 (3.3%)	2.63±1.20
Noticeable problem relating to employees safety	65 (16.5%)	128 (32.4%)	65 (16.5%)	127 (32.2%)	10 (2.4%)	2.71±1.17
Is safety important in your company	94 (23.6%)	134 (34.0%)	34 (8.6%)	130 (33.0%)	3 (0.8%)	2.52±1.21
Is there anything that can be done to improve safety in the company	75 (19.0%)	150 (38.0%)	34 (8.6%)	128 (32.4%)	8 (2.0%)	2.60±1.19
Can knowledge of safety standards improve employee performance	115 (29.1%)	154 (39.0%)	19 (5.0%)	102 (25.6%)	5 (1.3%)	2.30±1.19

SA-strongly agree, A-Agree, N-Not sure, D-disagree, SD-strongly disagree

**Relationship between workers’ knowledge of safety standards and employee’s performance;**

The establishment of the relationship between workers’ knowledge of safety standards and employee performance was carried out using Pearson moment correlation. The findings showed that, there was a significant positive relationship (r = 0.823, P = 0.0001). High level of knowledge of the workers on safety standards resulted into better performance of the employees in an organization. On the contrary, lack of knowledge of the workers’ safety lead to poor performance of the employee.

**Understanding of the workers on safety standards at work:**

Understanding of safety standards to majority of the workers, 44.8%, was “Having individual responsibility to safety standard”. 17% of the workers understand it as “Having joint occupational health and safety committee” or “Adhering to health and safety rules”. This can be illustrated in table 6 below.

**Table 6: Workers opinion on the meaning of safety standards**

Meaning of safety standards	Frequency	Percent	Ranks (1 – most views)
Having individual responsibility to safety standard	177	44.8	1
Having joint occupational health and safety committee	67	17	2
Adhering to health and safety rules	69	17.5	2
Correct work procedure	15	3.8	4
Having emergencies procedures	11	2.8	5
Reporting and investigating accidents/incidents	15	3.8	4
Work place inspections	12	3.0	5
Employee orientation to safety standards	9	2.2	6
Others	20	5.1	3
Total	395	100	

To the best of their knowledge on the safety standards, most workers 72.5% are aware of safety standards of wearing protective clothing e.g helmets, overalls, gloves etc. 48.5% know the safety of using fire extinguishers in case there is fire while 28.5% know the safety standard of providing medical examinations and training.

According to key informant interviews of some employees in the textile companies: Workers in the companies have knowledge on safety regulation since they are trained regularly. The knowledge of safety among workers is high, although they keep witnessing safety related accidents but occasionally. Generally a high percentage has acquired knowledge on work safety since it is company policy to put work safety foremost. The company has put a lot of measures in place to address future standards although a good number of the employees are not very keen to implement them.

The level of knowledge by the workers on the floor shops is generally good, and they have a leader of each group as far as environment and safety is concerned. Nearly all employed workers are trained on safety and work, participate in safety drills e.g. fire drills. However, not all the staff get trained because there are some casuals who work on daily basis and are not aware of any safety regulations but the permanent staff are aware. It was noted that most of the workers are on casual basis and the management has not put in place any defense mechanism.

**Table 7: Safety standards known by the workers in the textile industry**

Safety standards	Frequency	Percent	Rank (1- most known)
Wearing protective clothing e.g. helmet, overalls, gloves	290	72.5	1
Using fire extinguishers in case there is fire	194	48.5	2
Provide medical examinations and training	114	28.5	4
Proper waste disposal	146	36.5	3
Proper heat and lighting in place	74	18.5	5
Others	6	1.5	6

Challenges relating to health and safety at work that the workers had was mainly insufficient protective clothing e.g. gloves, eye protection goggles, hard hats etc. This was a challenge to 59.0% of the workers. The second most common challenge was insufficient fire hazard equipment installed. This challenge was experienced by 41.3% of the workers. The third most common challenge was lack of proper waste disposal which was experienced by 32.0% of the workers. This has been demonstrated by table 4.9 below.

#### 4. CONCLUSION AND RECOMMENDATION

In conclusion, the study found that most of the textile employees of Export Processing Zone were knowledgeable of the safety standards for example wearing of protective gear, use of fire extinguishers and correct work procedures. The study also found that most textile employees adhered to health and safety regulation set by their textile companies they work for. There is also safety training done for all workers and also employee participation through safety drills they undertake.

The study recommends that workers knowledge to safety standards should be a continuous process and that textile companies both existing and new ones should have training need assessment of its workers on a regular basis as this will improve on their productivity.

### ACKNOWLEDGEMENT

I would like to thank God for giving me the divine favor, energy; protection and provision that enabled me complete this publication. I will like to convey my sincere thanks to my supervisors Dr Jane Omwenga and Dr James Kilika for their guidance and support that has made this publication a success. Finally I would like to thank Mr. Lawrence Alaro, Microbiology department who also through his contribution made this publication to be a success.

### REFERENCES

- [1] Babbie, (2015). *The Practice of Social Research, Wadsworth Publishing: 13th edition*
- [2] Bakri, A., Zin, R. M., Misnan, M. S., & Mohamad, A. H. (2006) Occupational safety and health (OSH) management System: Towards development of safety and health culture. *The 6th Asia Pacific Structural Engineering and Construction Conference, 5-6 September 2006, Kuala Lumpur, Malaysia.*
- [3] De Greef, M., Van den Broek, K., (2004) Quality of the working environment and productivity: Research Findings and Case studies, *European Agency for Safety and Health and Work, Belgium*
- [4] Eskildsen, J.K & M.L Nussler, (2000) The managerial driver of employee satisfaction and loyalty, *Total Quality Management; 11: 581-588*
- [5] Evans, Andy & John Parker, (2008) Beyond Safety Management Systems. Pp. 12–17 in *AeroSafety World.*
- [6] Guest, D. (2002) Human resource management, corporate performance and employee wellbeing: building the worker into HRM, *Journal of Industrial Relation, 44: 335-358*
- [7] Guest, D.E., Michie, J., Conway, N. and Sheehan, M. 2003. Human resource management and corporate performance in the UK. *British Journal of Industrial Relations. 41(2): 291-314*
- [8] Haider M. H and A. Riaz, (2010). Role of transformational and transactional leadership with job satisfaction, *Business and Economic Horizons pp: 29-38*
- [9] Hansen, M., Nohria, N. and Tierney, T. (1999), “What's your strategy for managing knowledge?”, *Harvard Business Review*, Vol. 77 No. 2, pp. 106-27
- [10] Houger, V.P., (2006) “Trends of employee’s performance: collaborative efforts between manager and employees”. *Journal of Performance Improvement, 45(5), 26-31*
- [11] Kothari, C.R. (2011). *Research Methodology; Methods and Techniques.* New Delhi. *New Age International Publishers.*
- [12] Lamm, F., Massey, C., Perry, M., (2006) is there a link between workplace health and Safety and Firm performance and productivity. *New Zealand Journal of Employment Relation. Vol. 32 No.1, pp 75-90*
- [13] Malik A.A., S.S. Yamamoto, A. Souras, Z. Malik and R. Sauerborn, (2010) Motivational determinants among physician in Lahore, Pakistan, *BMC health services research, 10; 201*
- [14] Michael, Evans, Jansen & Haight, (2005) Management commitment to safety as organizational support: Relationships with non-safety outcomes in wood manufacturing employees, *Journal of Safety Research, Volume 36, Issue 2, pg 171-179*
- [15] Moller, G.P. (2003). The implementation and evaluation of behaviour based safety interventions at Sishen Iron Ore Mine. *Unpublished doctoral thesis, Potchefstroom University for Christian Higher Education, Potchefstroom, South Africa.*
- [16] Okafoagu, N. C., Oche, M., Awosan, K. J., Abdulmulmuni, H. B., Gana, G. J., Ango, J. T., & Raji, I. (2017). Determinants of knowledge and safety practices of occupational hazards of textile dye workers in Sokoto, Nigeria: a descriptive analytic study. *Journal of public health in Africa, 8(1).*
- [17] Spring (2009) SASO Outreach, [http://www.faa.gov/about/initiatives/saso/library/media/SASO\\_Briefing\\_Managers\\_Tool](http://www.faa.gov/about/initiatives/saso/library/media/SASO_Briefing_Managers_Tool)
- [18] Williams, J. H. (2003). “People-Based Safety: Ten Key Factors to Improve Employees’ Attitudes.” *Professional Safety (2), 32-36.*