

# Relationship between Worker Participation in the Implementation of Safety Standards and Employee's Performance in Textile Manufacturing Companies in Selected Counties in Kenya

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## Abstract:

**Background:** The purpose of this study was to determine the effect of workers participation in implementation of safety standards in textile manufacturing companies in Kenya. Theories that anchored the study include: Heinrich domino theory, Human factor theory, behavioral based Safety theory, system theory and social exchange theory. **Methods:** The target population included all the 22 textile manufacturing companies in the export processing zone. This study sampled 400 respondents and adopted a descriptive cross sectional research design. Data was collected using questionnaire and key informant's interviews and coded for computerized data entry. Data analysis included descriptive and inferential analysis which were done using statistical package for social Sciences. Inferential statistics was carried out by the use of multiple regression analysis to determine the significance of the independent variable and moderating variable in respect of employee performance in textile industries in Kenya. Hypothesis testing was carried out using t-test. **Result:** Inferential statistical analysis revealed that there was a correlation between worker's participation and employee performance ( $r = 0.701$ ). **Conclusion:** The study concluded that workers participation in implementation of safety standards if properly utilized contributes to improved employee performance in textile manufacturing companies in Kenya. The study recommends that textile manufacturing companies should conduct periodic safety training and awareness of safety standards among their employees. Well-structured policies should be formulated and enforced to ensure compliance among employees. It further recommended that workers should be involved in decision making of safety standards.

**Key words:** Employee participation, safety standards, employee performance, textile companies

## I. INTRODUCTION

Employee performance is defined as whether a person executes his/her job duties and responsibilities according

to recommended standards.. Many companies assess their employee's performance on an annual or quarterly basis in order to define certain areas that need improvement. Performance is therefore, a critical factor in organizational success. (Diefendorff, Brown, Kamin, & Lord, 2002). 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).

There is evidence that occupational injuries and illnesses impact on productivity losses (Lamm, Massey & Perry, 2006). Research findings on a paper on quality of the working environment and productivity in a construction company in Belgium, Germany where 102 senior managers were interviewed showed that 79% cited health and safety as currently having a great or fair amount of tangible impact upon corporate reputation and performance. Thus, the quality of a good 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, *et al.*, (2003) provides a useful theoretical model that suggests possible links between a series of managerial inputs and performance outputs. The inputs are business strategy, Human Resource (HR) strategy and HR practices. The HR practices include induction, job design, recruitment and selection, appraisal, 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.

In this study, it was anticipated that companies encouraged workers' participation in decision making. This was evidenced from an existence of safety committees, representatives of the employees in various committees and employees being assigned some roles in the improvement of safety conditions. This therefore, meant that workers should be consulted upon when major decisions that affected their safety are made. Employers must consult workers and their representatives as part of the process. Managers did not have the solutions to all health and safety problems. Worker participation is important in all aspects of workplace changes which are developed to assess work-related risks and reduced work-related injury and work-related health problems (Crawford, 2019).

Workers and their representatives had the detailed knowledge and experience of how the job was done and how it affected them. For this reason, workplaces in which workers actively contributed to health and safety often had a lower occupational risk level and accident rates. A workplace culture that discourages worker participation in safety policy shall have less empowered workforce and hence they will have low performance as opposed to workplace culture that encourages worker participation (Yanar, Kosny & Smith, 2018). Worker participation in health and safety was a simple two way process where employers and their workers/workers' representatives; talk to one another, listen to each other's concern, look for and share views and information, discuss issues in good time and trust and respect each other. Workers must be informed, instructed, trained and consulted on health and safety. Full participation goes beyond consultation thereby workers and their representatives are also involved in making decisions. It was therefore expected that workers participation would enhance their performance since they would own the processes that promote safety

## II. MATERIALS AND METHODS

The study focused on positivism as it tried to uncover the one truth about how things are. Positivists believe that reality is stable and can be observed and described from an objective viewpoint, that is, without interfering with the phenomena being studied. Positivism is a quantitative method which follows a scientific approach to research. It is objective, generalizable, replicable, rigorous and testable for validity. The method also uses mathematical models to predict as well as to test hypothesis. However, it fails to capture feelings, experiences and the uniqueness of the individual. This study used positivist perspective because it was based on the theoretical framework and hypothesis. It used hypothesis and statistical model to test the hypothesis (Awino *et al.*, 2012). The study used descriptive cross sectional study design. This design involves making observations of a population or sample of the study at one point in time (Babbie, 2015). Cross-sectional studies provide a clear 'snapshot' of the outcome and the characteristics associated with it, at a specific point in time. This design was chosen because it gave 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 phenomena (Leedy & Ormrod, 2001).

The target population of the study consisted of employees of textile manufacturing companies Athi River (Export Processing Zone) and Nairobi (Industrial area). The unit of analysis was the textile manufacturing companies and unit of observations was the employees. Selected employees were workers of textile sector who face more safety related problems at workplace. According to EPZA 2014-2019 strategic plan, the total number of Kenyan employees in the EPZ program employment (2008-2013) were 39961. However, employment by sector of local jobs for garment manufacturing companies was 82.41% which translate to 32,932 employees. The total number of firms in the EPZ program are 85 whereby the garment manufacturing firms were 25.88% which are 22 firms countrywide (ACTIF, 2013). There are 18 licensed EPZ firms in Athi River and Nairobi. The study randomly sampled 30% of the total number of licensed firms which was 5 firms. Firms sampled included; Global Apparel Kenya EPZ Ltd, Royal Garments Epz Ltd, United Aryan EPZ Ltd, Ashton Apparel EPZ Ltd and Alltex EPZ Ltd. The study also randomly sampled 400 from a total of 2744 employees.

Cluster sampling was used because of the heterogeneous nature of sampled textile manufacturing firms. Cluster random sampling was used whereby the companies were divided into clusters and 5 clusters were sampled out of a total of 18 clusters. Individual respondents were sampled using systematic random sampling technique using a sampling interval of 7. The first respondent was sampled using simple random sampling then the rest were sampled using the interval of 7. Key informants were purposively sampled. Key informants mainly constituted the manager and sections heads as they were considered to be more knowledgeable on safety issues in their organizations.

The study used both primary and secondary data sources. Primary data were 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 the employee's perception about safety standards. The study also used secondary data that was obtained from existing literature, books, journals and the internet. A checklist consisting of targeted areas was used to collect relevant information from existing literature. Data was collected through administration of questionnaires, key informant interviews (the proprietors or in charge of each industry), direct observation and photography. The tools were developed and organized according to research objectives. A total of 400 questionnaires were administered by the researcher to the sampled employees in the textile industries.

### III. RESULTS AND DISCUSSION

This chapter presents the research findings on the relationship between work safety compliance and employee performance in the textile companies in Kenya. This chapter also presents the analysis and presentation of findings obtained from the respondents in accordance with the objectives of the study. The chapter also has a discussion of the findings in accordance with the objectives of the study.

#### Reliability Test Results

Reliability shows the measure of the degree to which the research instrument yields consistent results or data after repeated results (Creswell, 2011). Table 1 shows the reliability test result which produced an overall Cronbach Alpha correlation coefficient of above 0.7 for all variables.

Table 1: Reliability Test Results

Variable	Cronbach's Alpha
Worker's Participation	0.757
Management Commitment	0.821

The correlation coefficient showed that all the variables had a Cronbach's coefficient of more than 0.7 hence the instrument deemed reliable. Specifically, for worker's participation in the implementation of safety standards 0.757 and management commitment 0.821. According to Mugenda and Mugenda (2003), a Cronbach's alpha of more than 0.750 shows a well-framed research instrument that is can adequately collect the required data for the study. The pilot study results showed a strong internal consistency of the study variables and hence the instrument was adopted for the study.

#### Demographic characteristics of Respondents

The demographic characteristics obtained from individual respondents and their background was examined in this section. The results were presented according to the demographics of the respondents interviewed. Demographic characteristics covered in this study included: job cadre, section of work, age, gender, level of education and marital status.

Table 2: Demographic characteristics of Respondents

Description	Frequency	Percentage (%)
Job Cadre		
Production manager	35	9.0%
Tailoring spinners	185	46.8%
Garment technician	104	26.2%
Others	71	18.0%
Section of Work		
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%
Gender		
Male	203	51.3%
Female	192	48.7%
Highest level of Education		
None (No formal education)	5	1.3%
Primary	70	17.7%
Secondary	253	64.0%
University/College	67	17.0%
Marital Status		
Single	148	37.5%
Married	200	50.6%
Separated/divorced	32	8.1%
Widowed	12	3.0%
None committal	3	0.8%

A total of 395 respondents in the textile companies participated in this study. Out of this number, 46.8% were in the job cadre of tailoring spinners, 26.2% were garment technicians, 9% were production managers and 18% were from other job cadres in the industry. The respondents were from different sections of the textile manufacturing process. The sections included: sewing section (41.3%), finishing section (14.4%), cutting section (13.7%), store section (10%) and maintenance section (9%). Majority of the respondents were male (51.3%) while 48.7% were females.

According to the findings, sampled respondents had an average age of 30 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% 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 half of the respondents (50.6%) were married, 37.5% were singles, and 8.1% were separated while 3% were widowed. The demographic data of the respondents shows a good diversity which implies that the views on the research questions were free from bias, for example, a single gender, one age-group or other personalities that may determine the perceptions of an individual.

#### Worker Participation

Workers participation in the implementation of safety standards was established by testing the respondents' views on a five point Likert scale for four items. Likert scale used was in a range of 1 – 5 (1- strongly agree, 2-agree, 3-not sure, 4-disagree, 5-strongly disagree). The reliability of the

responses received was tested using Cronbach’s alpha of the items. This gave a Cronbach’s alpha value of 75.7% (r = 0.757). In this industry, workers participation in safety committees had a mean response 2.30 with a standard deviation of 1.11. This was strongly agreed by 23.8% and agreed by 44% of the respondents.

Table 3: Workers Participation in the Implementation of Safety Standards

Items	SA	A	N	D	SD	Mean	Std
Safety committee in your organization	94 (23.8 %)	174 (44 %)	41 (10.4 %)	80 (20.3 %)	6 (1.5 %)	2.30	1.11
Employees involved in designing safety programs	72 (18.2 %)	122 (30.9 %)	60 (15.2 %)	128 (32.4 %)	13 (3.3 %)	2.71	1.21
Presence of safety and health responsibilities	68 (17.2 %)	146 (37.0 %)	43 (10.9 %)	133 (33.7 %)	5 (1.2 %)	2.62	1.17
Does workers participation in safety issues affect employee performance	50 (12.7 %)	146 (37.0 %)	55 (14 %)	124 (31.3 %)	20 (5 %)	2.79	1.19
Aggregate Score						2.61	1.17

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

The study established the role of the respondents in the safety committee. Among the sampled workers, 53.5% were members of the committee, 9.0% were chairmen, and 7.0% were secretaries in their committees whereas 8.5% had other roles. This was shown in figure 1 below.

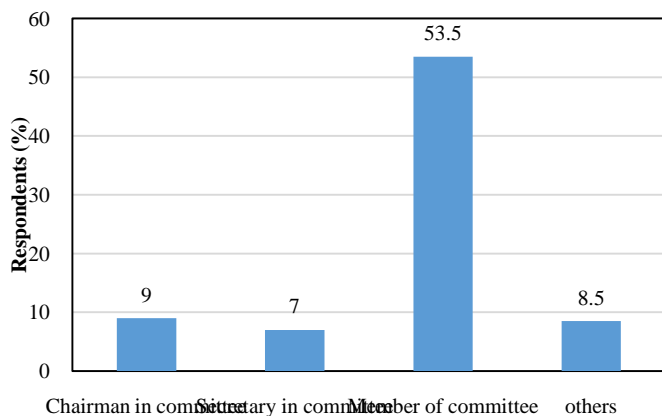


Figure 1: Roles Held by Respondents in the Safety Committee

In the organizations, 71.8% of the workers stated that they were involved in designing safety programmes while the rest 28.2% were not involved. Those who were involved in designing safety programmes were involved in programmes such as; planning production, environmental health and safety, quality management and other programmes. A substantive proportion, (39%) were involved in production of planning programmes whereas 38.4% were involved in environmental, health and safety programmes. This was shown in table 4.

Table 4: Safety Programmes Employees were Involved in Textile Companies

Safety programmes	Frequency	Percent
Production of planning programmes	154	39.0
Environmental , health and safety programs	152	38.4
Quality management	37	9.4
Others	7	1.8
Not involved in any programmes	45	11.4
Total	395	100

According to the key informant interviews with some employees, it was noted that the worker participation affected work safety in the institutions since the more the workers participate in safety issues, the less premium workers’ pay to insurance. This was done by training workers and ensuring safety was observed. In the company, there are full-fledged compliance departments which handled all safety issues with members of various departments. Worker participation in work safety was at a very high rate because this affected them directly as the immediate people who are in the production process. Study results indicated that 90% of worker’s participation affected work safety. This was on a higher scale due to cases of non-compliance that are reported from time to time.

Workers were frequently trained in- house about safety. They were also trained by accredited consultants who ensured structured regulatory recruitment under Kenya laws on safety were observed. Once trained, they participated in fire drills and this had helped the workers reduce chances of accidents. Fire drills ensured that they were prepared for any emergencies. Most of the respondents strongly agreed that workers participation in safety issues affect employee performance. This supports findings by Zahoor *et al.*, (2017) who found that safety participation is conceived as an activity that can help in developing an environment that stimulates high safety standards such as voluntarily joining safety training programs and helping coworkers with safety-related issues.

*Normality Test using Kolmogorov-Smirnov of Worker Participation*

Normality test result for the Workers participation data showed that the data had a normal distribution with a Kolmogorov -Smirnov Normality test result of D+: 0.076, D-: 0.054, D: 0.076, P value of < 0.01. This was illustrated in figure 2.

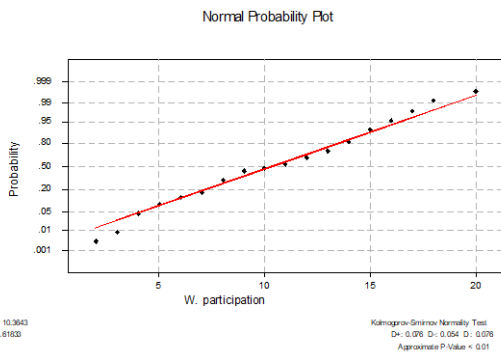


Figure 2: Normality Test for Workers Participation

*Normality Test using Kolmogorov-Smirnov of Employee Performance*

Normality test result for the Employee performance data showed that the data had a normal distribution with a Kolmogorov -Smirnov Normality test result of D+: 0.096, D-: 0.104, D: 0.104, P value of < 0.01. This was illustrated in Figure 3. This implied that statistical tests to test hypothesis were accurate since the response did not deviate so much from the normal

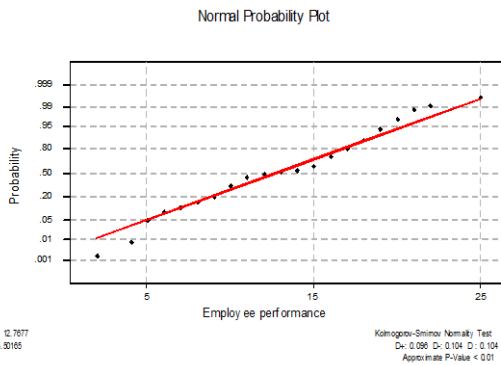


Figure 3: Normality Test for Employee Performance

IV. DISCUSSION.

The relationship between workers’ participation in the implementation of safety standards and employee performance was carried out using Pearson moment correlation. The results showed that, there was a significant positive relationship ( $r = 0.719$ ,  $P = 0.0001$ ) (Table 5) When the workers participate more on the implementation of safety standards in an organization there was better performance of the employees in an organization. These results agree with what Neal and Griffin, (2005) found that workers participation is important in improving employee performance. In order to establish the relationship between safety communication and employee performance, Pearson moment correlation was carried out. The result showed that, there was a significant positive relationship ( $r = 0.739$ ,  $P = 0.0001$ ). Frequent communication of safety to employees resulted into better performance of the employees in an organization. This finding is similar to that of Williams (2003) who found that one of the

most effective ways to improve a safety culture and prevent injuries is to optimize safety-related communication.

Table 5: Correlation Analysis Results

		Employee Performance	Worker Participation
Worker Participation	Pearson Correlation	0.701**	1
	Sig. (2-tailed)	0.000	
	N	395	395

\*Correlation value was significant at  $P \leq 0.05$

Testing Hypothesis

The formulated corresponding hypothesis ( $H_0$ ) stated that worker participation in the implementation of safety standards does not have effect on employee performance in textiles manufacturing companies in Kenya. As presented in the regression parameters from the data analyzed ( $\beta = 0.150$ ,  $t = 2.71$ ,  $p = 0.007$ ) showed that the alternate hypothesis of relationship between worker participation in implementation of safety standards and employee performance was statistically significant and therefore the null hypothesis of no significant effect was not accepted. The results also indicated that, given other variables of interest held constant; a unit increase in worker participation yielded 0.150 increase in employee performance.

As remarked in the literature that worker participation in occupational, health and safety programmes yields better outcomes that unilateral management initiatives (Gunningham, 2008), the findings of this study therefore support and in agreement in with evidence of positive and significant effect of worker participation on various organizational outcomes (Aksorn & Hadikusumo, 2008; Wachter & Yorio, 2014; Akpan, 2011).

V. RECOMMENDATION

The study recommends that workers should be involved in decision making of safety standards so that they can own those policies. This will make it easier for them to comply with the set safety standards since they participated in making them. They are able to see the importance of complying with the safety standards hence less resistance in adherence of them. This will in turn improve their performance and organizational performance as a whole.

Conflict of interest

There is no conflict of interest in this research.

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