

Contribution of occupational health and safety on employees' performance in classified hotels in Busia County-Kenya

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Abstract

Protecting the safety, health, and welfare of those who are working or employed is the focus of the field of occupational safety and health (OSH). The work environment presents a variety of elements that add new health-related aspects, resulting in diseases and injuries from work-related accidents and exposure to dangers. This study aimed to assess the contribution of occupational health and safety on employees' performance in classified hotels in Busia County-Kenya. Under methodology, a descriptive and correlational research designs were used with data collected from a sample of 150 employees. Purposive, stratified and simple random sampling techniques were used. Quantitative primary data was collected using questionnaires. Descriptive statistics of demographics showed a gender imbalance of 53% female, 46% male, and 1% transgender employees; the workforce was primarily young, with 44% aged 26-35 years, and most employees (40.6%) were college graduates; majority (54%) had worked for less than five years, and 41.33% were employed on temporary terms. Inferential statistics on welfare amenity provision showed a p-value of $0.045 < \alpha$ value 0.05. Accidents and injuries, Safe work methods displayed positively influenced productivity (p-value 0.025) and reduced sick leave (p-value 0.031). OHS training revealed that refresher courses significantly reduced accidents (p-value 0.023). Introduction of new technology was found to have a significant impact on employee performance (p-value 0.038). In conclusion, the three hypotheses were rejected since there was sufficient evidence that there was a significant relationship between welfare amenity provisions, occupational accidents and injuries, OHS training and employee performance.

Keywords: Occupational accidents; Health; Safety; Training; Welfare amenity; Employees

1. Introduction

According to the World Health Organization (WHO [1], 2015), the realm of occupational health pertains to every facet of wellness and security in the workplace, with a particular focus on averting hazards. Health, which denotes the absence of illness or infirmity and the state of being physically, mentally, and socially well, has been defined. The provision of a safe and healthy work environment is one of the objectives of efforts related to occupational health and safety, as stated by the Ministry of Health (MoH [2], 2015).

In the US, Technological advancements brought forth novel and unusual risks that were often missed by unskilled observers and only identified after multiple cases had been recorded (Friend and Kohn [3], 2017).

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In light of the rapid transformations in the recent economic climate, health and safety have gained renewed attention, as they have substantial implications for both individual and national well-being, as noted (Pouliakas and Theodossiou [4], 2017).

As technology has advanced and been used in more production processes, occupational risk and accidents have increased (Topal [5], 2017). The manufacturing employees at food manufacturers in Zimbabwe, however, frequently suffer from occupational illnesses and accidents, which lowers worker productivity. Lack of sound occupational health safety (OHS) protocols results in high absenteeism and sickness rates. Five production department employees from a food plant in February 2008 were granted sick days totaling 11 working days, which resulted in 330 minutes of missed production time just from clinic visits. Katsuro, Gadzirayi, Taruwona, and Mupararano [6] (2017).

Kenya is struggling to create jobs, particularly for young people. However, a sizable portion of people in employment continue to struggle with unsafe and unhealthy working conditions. Therefore, it's crucial that the nation not only prioritizes job creation but also enhances workplace health and safety, Republic of Kenya (RoK [7], 2017).

In Kenya, DOSHS holds the responsibility for managing OSH. As per ILO [8] (2018), DOSHS is the official national entity in charge of collating and maintaining a database of occupational accidents and illnesses, as well as investigating them.

According to Otieno, Onditi, and Monari [9] (2019), a report from the Busia County Government in Kenya [10], 2018) documented 256 instances of work-related accidents in the area. The lack of Occupational Safety and Health (OSH) officers, medical and nursing staff, and support personnel in Busia County is evident from the distribution of DOSHS staff across Kenya's OSH profile).

1.1. Conceptual framework

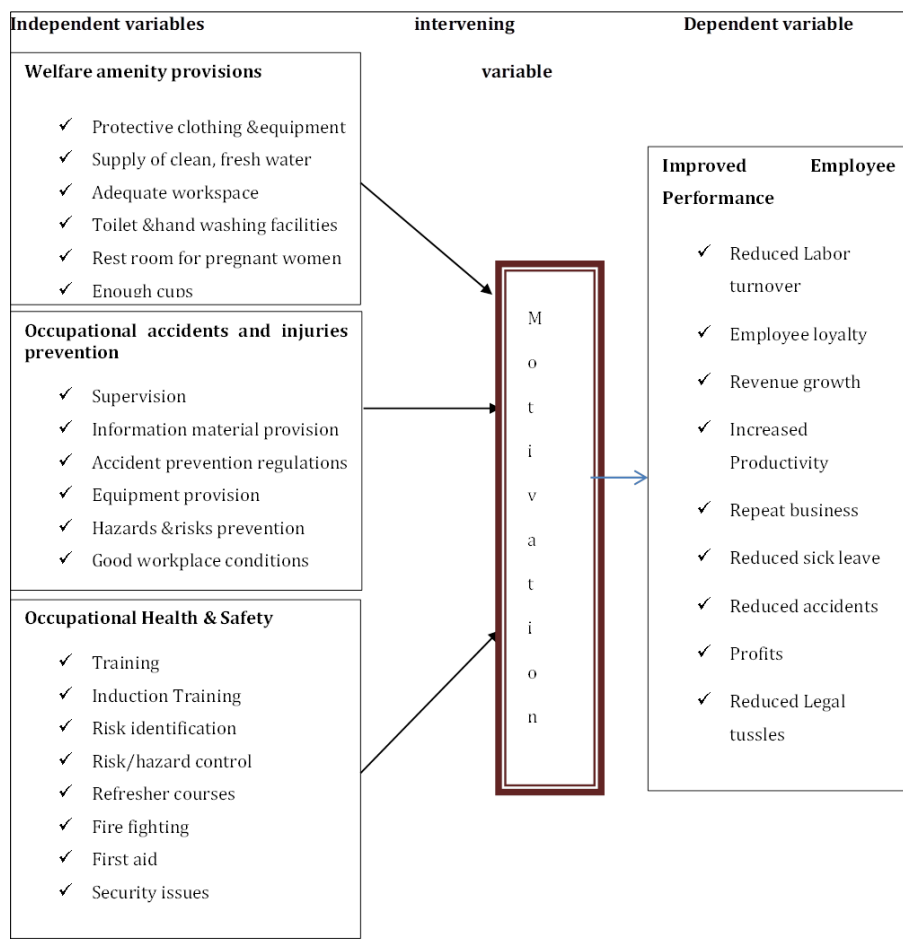


Figure 1 Conceptual framework showing independent Variables: Welfare amenities provision, accidents and injuries and OHS training and dependent variables (Employee performance)

A conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation, (Mugenda and Mugenda [11], 2017). According to Grant and Osanloo [12] (2014), it establishes connections between independent and dependent variables and is organized in a logical manner to assist in understanding how different concepts in a field relate to one another. Luse, Mennecke, and Townsend [13] (2016) suggest that the framework allows the researcher to clearly define and clarify the concepts related to the issue being studied.

From the conceptual framework, it's clear that providing employees with welfare amenities motivates them to perform better. Motivated and trained employees prevent chances of accidents and injuries occurring thereby improving their performance.

2. Material and methods

2.1. Research design

Descriptive and correlational research designs were used. The study was carried out in classified hotels in Busia County-Kenya. The target population comprised the managers/supervisors, cooks in the food and beverage industry, and housekeeping staff working in classified hotels situated in Busia County.

2.2. Study area

The study was carried out in classified hotels in Busia County (Appendix v). The effectiveness of conventional OSH standards enforcement methods can be attributed to the large size and capital base of the organization. In addition, the strategic location of the organization, which borders Uganda, provides an advantage due to the high number of international visitors. Despite the presence of over 20 hotels in the county, no research has been conducted on occupational health and safety within this industry. West of Nairobi, in the county of Busia, is Busia Town, which serves as the county seat. An area of 1,694.5km² is occupied by the County The County is in the extreme westernmost part of Kenya, bordered to the north by Bungoma, to the east by Kakamega, to the southeast by Siaya, to the southwest by Lake Victoria, and to the west by the Republic of Uganda. It is situated between 0° and 0° 45' North and 34° 25' East. The closest access point is Kisumu International Airport, which is located 112 kilometers from the County. This county acts as the gateway to East Africa thanks to its two border crossings at the towns of Busia and Malaba. CIDP for Busia,[10] 2018–2022. The expected population of Busia County in 2019 was 893,681, with 467,401 females, 426,252 males, and 28 intersex people. (KNBS [14], 2019).

2.3. Sample size

The size of the sample was established using Sample Size Tables based on the Yamane formula [15] 1967). With a Confidence Level of 95% and P=0.5, the sample size was 154.

Both non-probability (purposive) and probability (stratified and simple random) sampling techniques were used. Purposive sampling was used to sample hotels that the study was carried out. On the sample population, stratified sampling (SS) and simple random sampling (SRS) was utilized. The hotels' sample size was computed as follows:

Table 1 Target population

Category of staff	Target population	Sample size	Percentage (%)
Hotel Managers/supervisors	50	21	13.6%
Food and beverage staff (cooks)	100	67	43.5%
Housekeeping staff	100	66	42.9%
Total	250	154	100%

Source: Author, 2023

2.4. Sampling techniques

Sampling is the area of statistical practice that deals with the choice of a small number of observations to provide data on a population of interest, especially for the goal of drawing conclusions from the data (Cooper and Schindler,[16] 2014).The researcher used both non-probability (purposive) and probability (stratified and simple random) sampling

techniques. Stratification makes sure that various demographic subgroups are represented in the sample. Using examples with the necessary information in relation to the study's aims is possible through the use of purposeful sampling (Kothari [17], 2014).

Purposive sampling was used to sample hotels that the study was carried out. On the sample population, stratified sampling (SS) and simple random sampling (SRS) was utilized. The hotels' sample size was computed as follows:

Seven (7) hotels out of 14 were sampled ($7/14 \times 100 = 50\%$).

2.5. Sampling procedure

After purposive sampling, the target population was first stratified into different strata based on departments (food and beverage or housekeeping) and designation (managers/supervisors, cooks and housekeepers) from which non-proportional random samples were selected.

2.6. Data collection

Quantitative data was collected using questionnaires that were filled by managers/supervisors, cooks and housekeeping employees. Questionnaires with structured/closed ended and matrix (Likert scale) questions were used. The researcher self-administered questionnaires (drop and pick technique) to respondents in various departments of these hotels. The researcher instructed respondents on how to complete the surveys and the deadline for selecting them. Each questionnaire was accompanied by a consent letter. Reliability is defined by Mugenda and Mugenda [11] (2017) as the degree to which an instrument produces consistent results across time. The degree to which a test or other measuring tool is accurately measuring what it is designed to measure is referred to as validity. The content validity was used to gauge validity. The ability of a test to include or represent all of the content of a specific construct is called content validity (Silverman [18], 2014).

2.7. Data Analysis

Out of the 154 questionnaires given to respondents, four (4) were misplaced by the respondents. Therefore only 150 questionnaires were analyzed. The data was collected, reviewed for completeness, and then coded before being analyzed. The 27th version of the Statistical Package for Social Sciences (SPSS) was used for analysis after data coding. Descriptive analysis of demographic characteristics used frequency tables, bar charts, pie charts and inferential statistics by use of non-parametric test of significance called the Chi-Square was used for analysis to determine the degree of the relationship between the independent and dependent variables

3. Results

3.1. Introduction

This chapter presents research findings, analysis; descriptive analysis of demographic characteristics and presented using frequency tables, bar charts, pie charts and inferential statistics by use of Pearson's Chi-square. The chapter dealt with the analysis of data from questionnaire surveys.

3.2. Research Presentation, Interpretation and Discussions

Table 2 Response Rate

Instrument	Number Targeted	Actual Number received	Percentage Response rate
Questionnaire	154	150	94.7%

The response was not 100% since four (4) questionnaires were not returned.

3.2.1. Descriptive statistics

Demographic Characteristics of Respondents

Table 3 Summary of demographic characteristics

Characteristics		Frequency (n)	Percent (%)
Gender	Male	69	46
	Female	80	53
	Transgender	01	01
Age	Below 25 yrs.	40	27
	26-35	66	44
	36-45	35	23
	46yrs and above	09	06
Highest education Level	Primary	16	10.6
	High school	55	36.6
	College Graduate	61	40.6
	Degree	14	9.33
	Masters	04	2.6
Years in employment: how long have you been working at this hotel?	Below 10yrs	81	54
	5-10	44	29.33
	10-15	15	10
	More than 15	10	6.67
Terms of employment	Casual	15	10
	Temporary	62	41.33
	Vocational trainee	20	13.33
	Permanent	53	35.33
Department	Food and beverage	85	56.67
	Housekeeping	65	43.33

Respondent’s gender

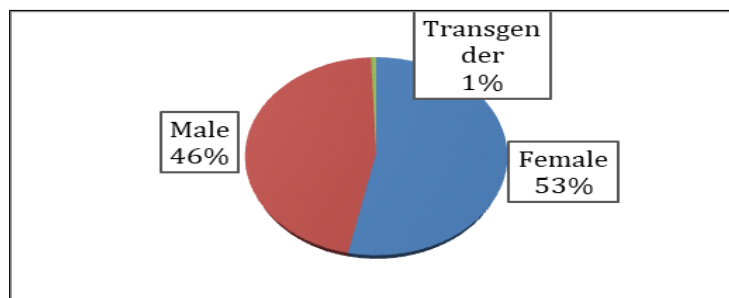


Figure 2 Respondent’s gender

From the above figure, there were more female (53%) than male (46%) and transgender (1%) respondents in the sampled hotels. This could be attributed to the fact that male consider hospitality to be a women’s affair (gender stereotypes).

Respondent's Age

In figure, 27% indicates that the workforce were younger than 25yrs,44% were between 26-35 yrs.,23% between 36-45yrs,and only 6% were 46yrs and above. This means there are more youth employed in these hotels. This being a hospitality sector, it attracts more youth since they have more energy to withstand the pressures in this sector.

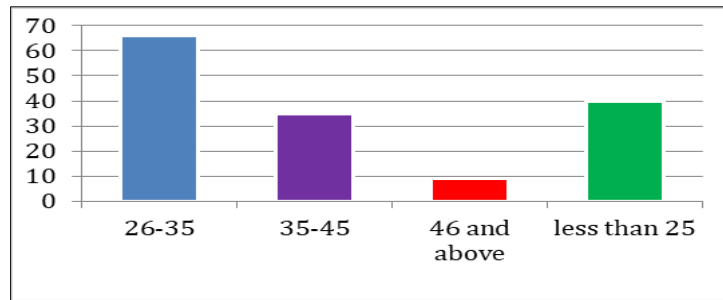


Figure 3 Respondent's age

Respondent's highest education level

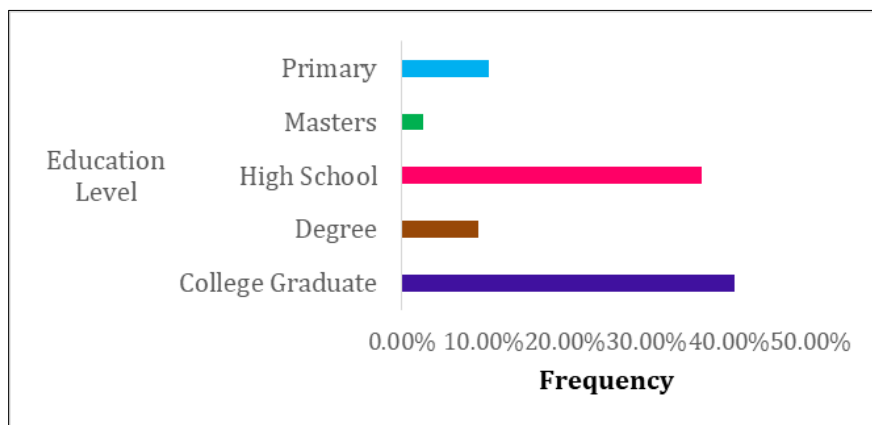


Figure 4 Respondent's highest education level

From the figure, it's evident that most respondents (40.6%) were college graduates, followed by high school leavers (36.6%), then primary leavers (10.6%), degree holders were only 9.33% and masters 2.6%.This is because hotels like to employ people with hands on skills to cut down on training expenses or lack of adequate funds to hire those with degrees or masters degrees.

Respondent's length of stay at work

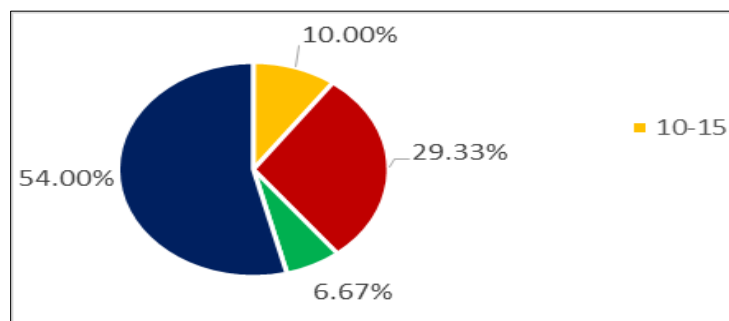


Figure 5 Respondent's length of stay at work

From the figure above, most respondents (54%) have stayed less than 5yrs at work, followed by 29.33% (5-10),10% (10-15 yrs.) and only 6.67% have worked longer (more than 15 yrs.).The high labor turnover experienced in hotels may be attributed to poor work environment or poor remuneration hotels offer.

Respondent’s Terms of employment

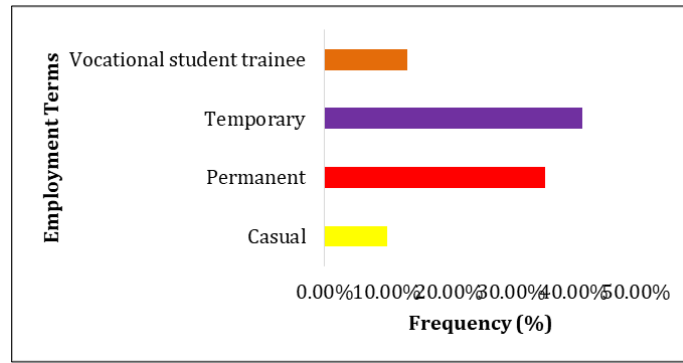


Figure 6 Respondent’s terms of employment

From the above figure, most of the hotel employees (41.33%) were on temporary terms followed by permanent (35.33%), vocational student trainees (13.33%) and casuals at 10%. This may be due to the fact that it’s cheaper to maintain employees on temporary terms. This can be attributed to lack of funds and fringe benefits that come with permanent employment.

Respondent’s Department

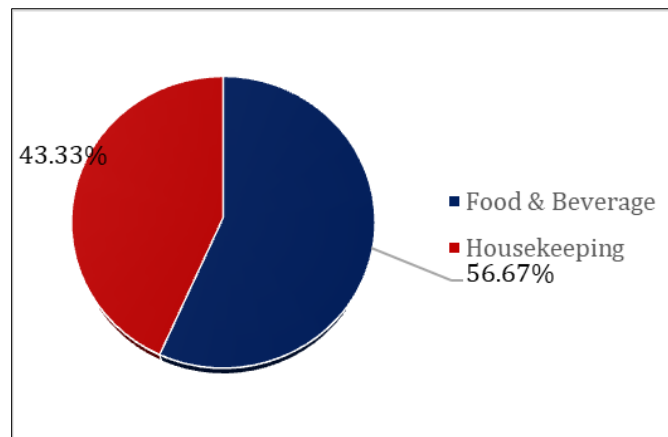


Figure 7 Respondent’s department

From the figure above, most respondents (56.67%) were from the food and beverage department than housekeeping department (43.33%). Since the female gender is high, they are likely to prefer food and beverage because it’s not that involving compared to housekeeping.

3.2.2. Inferential Statistics

Welfare amenity provisions and employee performance

Table 4 The association between Provision of Clean Water and Employees Sick leave

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.948 ^a	12	.045
Likelihood Ratio	16.475	12	.170
Linear-by-Linear Association	.028	1	.868
N of Valid Cases	150		

Clean water remains a necessity in any working place including hotels. To understand how provision of clean water influences the employee’s health and corresponding sick leaves frequency, a chi-square test of independence was fitted. From the results, majority of the employees who agreed that they are provided with clean drinking water also agreed that there have been reduced cases of sick leave in their working areas. From the chi-square results, the corresponding chi-square value was 20.948; with a p-value is 0.045, less than alpha value 0.05. Therefore, the study reveals that by providing employees with clean water, this improves their health status, thereby reducing frequency of sick leaves significantly.

Occupational accidents & injuries and employee performance

To understand the condition of occupational accidents and injuries and the corresponding employee performance, various indicator variables were used. These included displays of safety work methods, accessibility of safety working guides and materials, work supervision, among other areas, and their corresponding impact on employees’ performances.

Table 5 Safe work methods displayed * Increased Productivity

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	28.875 ^a	16	.025
Likelihood Ratio	26.710	16	.045
N of Valid Cases	150		

The p-value 0.025 is less than alpha value 0.05 which implies that safe work methods displayed reduced accident cases thus significantly increasing productivity of an organization. With reduced accidents, the employees will spend more hours working, thus increasing productivity.

Occupational Health & safety (OHS) Training and employee performance

Table 6 Association between Provision of Refresher Courses and Accident Reduction within the Hotel Working Places

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.005 ^a	16	0.023
Likelihood Ratio	10.723	16	.826
N of Valid Cases	150		

Since the p-value is 0.023, less than alpha value 0.05, implying that offering refresher courses significantly leads to reduction of accident cases within the hotel working environment as employees learn on new ways of doing things for instance working with machines.

Table 7 Association between introduction of new technology and increased profitability

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.290 ^a	16	.038
Likelihood Ratio	12.579	16	.703
N of Valid Cases	150		

From the above output, the corresponding chi-square value is 0.038. Since this value is less than alpha 0.05, it implies that introduction of new technology has a significant positive impact on the employees' performance. This may be due to increased efficiency associated with the technologies.

4. Discussion

The research study was guided by the following hypotheses:

- **H_{01} there is no significant relationship between welfare amenity provisions and employee performance.**

Under this hypothesis, various welfare amenity provisions were discussed. The researcher wanted to find out the association between provision of clean drinking water and reduction of sick leave. Clean water remains a necessity in any working place including hotels. To understand how provision of clean water influences the employee's health and corresponding sick leaves frequency, a chi-square test of independence was fitted. From the results, majority of the employees who agreed that they are provided with clean drinking water also agreed that there have been reduced cases of sick leave in their working areas. From the chi-square results, the corresponding chi-square value was 20.948; with a p-value is $0.045 < \alpha$ value 0.05. Therefore, the study revealed that by providing employees with clean water, this improves their health status; thereby reducing frequency of sick leaves significantly which in turn increases productivity. It is inferred that there is a strong correlation between provision of clean water and reduced sick leaves. This means the null hypothesis is rejected. This concurs with Tiwari's [19] (2014) study on employee welfare activities and its impact on employee's efficiency at Rewa and concluded that the management requires giving an attention to the facilities provided to the employees in such a way that will increase the productivity, satisfaction, performance level, profitability of organization.

The researcher also wanted to establish whether adequate working space led to increased revenue growth. Majority of the respondents agreed that they were provided with adequate working space. Only a few stated that their working space was inadequate.

From the findings, p-value was $0.793 >$ than alpha value 0.05. This implies that provision of adequate working space in these hotels does not necessarily lead to increased revenue growth. This means that there is no relationship between the two, hence null hypotheses was accepted. This agrees with Keitany [20] (2014) who argues that medical services aim to provide help to employees who get absent from work for long periods because of illness related issues. This also concurs with Allender, Colquhoun, and Kelley [21] (2011) provides that a welfare program that's good for employees' welfare shows them that they are valued. This helps make them feel welcome and happy, motivating them to work harder and increase their performance and productivity.

- **H_{02} there is no significant relationship between occupational accidents and injuries and employee performance**

To understand the condition of occupational accidents and injuries and the corresponding employee performance, various indicator variables were used. These included displays of safe work methods, accessibility of safety working guides and materials, work supervision, among other areas, and their corresponding impact on employees' performances.

To establish whether safe work methods displayed resulted into increased productivity, the chi-square test showed that p-value = 0.025 is $<$ than alpha value 0.05 which implies that safe work methods displayed reduced accident cases thus significantly increasing productivity of an organization. With reduced accidents, the employees will spend more hours working, thus increasing productivity. This means there is a significant relation between display of safe work methods and increased productivity. This again rejects the null hypothesis. The findings is supported by a study by Makori et.al [22] (2012) who observed in their findings that occupational accidents negatively influence performance since they compromise product service quality, inhibits employee performance affects employee presentitiseem and inform cases of employee turnover.

- ***H₀₃ there is no significant relationship between Occupational Health and Safety training and employee performance***

To understand how occupational health and safety training influenced employees' performance, various indicator variables were selected. Among the OHS used for analysis included; induction of employees to OHS measures, risks and risk identification mechanisms, provision of safety refresher courses, introduction of new technology, and provision of first aid equipment. To understand the corresponding influence of these OHS indicators on performance, employee performance indicators used included profit increase, reduced accidents and productivity increase. A chi square test of independence was used to investigate if the corresponding associations are significant.

Concerning reduced cases of accidents, the findings showed that the p-value was $0.664 > \alpha$ value 0.05 , implying that the association between the OHS induction programs and occurrences of accidents within the hotel settings are independent i.e. no relation hence accepting the hypothesis. This finding differs with Katsuro et.al [6] (2017).

Regarding increased productivity, the corresponding chi-square value was $0.038 < \alpha$ 0.05 , it implies that introduction of new technology has a significant impact on the employees' performance hence increased productivity. This may be due to increased efficiency associated with the technologies. These results concur with Osei et al [23] (2015), April [24] (2018) and Kemal [25] (2013).

In another instance, the p-value $0.025 < \alpha$ value 0.05 which implies that safe work methods displayed reduced accident cases thus significantly increasing productivity of an organization. With reduced accidents, the employees will spend more hours working, thus increasing productivity. A similar study findings by Thobora et al. [26] (2015) agree with this study findings by recommending that employees need to be adequately instructed and trained in safe systems of work such as safe methods for carrying out tasks, safe use of equipment or substances, use of health and safety control measures and personal protective equipment, accident reporting and emergency procedures and their responsibilities for health and safety.

4. Conclusion

In conclusion, the three hypotheses were rejected since there was sufficient evidence that there was a significant relationship between welfare amenity provisions, occupational accidents and injuries, OHS training and employee performance. Recommendations suggest that safe work methods should be displayed in work places to guide workers in their duties so as to reduce accidents, hotel management must set aside more funds to train their staff in order to improve performance, modern technology needs to be introduced in work places to improve productivity and enhance performance and another study to establish what other determinants lead to better employee performance in the hotel industry.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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