EFFECT OF LEGAL FRAMEWORKS ON OCCUPATIONAL, SAFETY AND HEALTH AMONG THE POLICE OFFICERS IN NAIROBI CITY COUNTY: A CASE OF KENYA

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Abstract

This paper was extracted and based on one of the variables of the researcher’s main research entitled: Antecedents of Occupational Health and Safety among the Police Officers in Nairobi City County, Kenya. The aim of the research was to analyze and find the effect of a legal framework on occupational, safety and health among Police Officers. The target population was the 4,000 Police Officers in Nairobi City County. In each police station, a sample of 5 percent Police Officers were randomly identified, selected, and interviewed by the use of questionnaires based on their availability at work. An initial pilot study of the 10% police stations was done in order to test the research instruments. Both descriptive and inferential statistics were used, and its findings were presented using figures, tables and charts. The result findings gave a response rate of 75.5% which was acceptable for a research. The results also showed that 68.20% of the respondents were of the view that Codes of Conduct were good in the smooth running of police operations and supporting their OSH. The responses had a mean of 3.84 and standard deviation of .93. As presented in tables, the coefficient of determination R Square is .466 and R is .683 p-value p<.000 at .05 being the level of significance. This means 46.6% of the Occupational, Safety and Health of Police Officers are influenced by Legal Framework. Police Officers should know all legal requirements for they shall be useful when performing their tasks. The government will not fall into legal challenges when they have legally informed officers.

Keywords: legal frameworks, Nairobi city county, National police service, police officers.

Introduction

Research Background

The Kenya National Police Service has twelve formations of Police Officers (National Police Service, 2019a). These are General Service Unit (GSU), Anti Stock Theft Unit (ASTU), Kenya Police College, Traffic Police Department, Presidential Escort Unit (PEU), Kenya Police Dog Unit, Kenya Airports Police Unit, Kenya Railways Police Unit, Kenya Tourist Police Unit, Diplomatic Police Unit, Maritime Police Unit and National Disaster Management Unit among others.

Nairobi City County is the only county in Kenya where the headquarters of the national government is stationed to run her operations (NCG, 2018). It is strategically located and connected by roads, railways, and airlines from all the cities of the world because of many airports like Jomo Kenyatta International Airport. Nairobi also has some of the biggest hotels, embassies, and United Nations organizations’ headquarters among other facilities. The economic and social importance of Nairobi City County necessitates the significance of high level security (NCG, 2018).
The research chose Nairobi City County due to its nearness and was not too costly. Another justification was that it is the county with the biggest population of 3.5 million as per 2009 population census, biggest in East Africa and 14th in Africa (NCG, 2018). In addition, the city is also metropolitan in nature and has many peoples from diverse nations and tribes and it is center of the central government. These become a security threat to Kenyans, her visitors or investors and Police Officers are especially exposed to terror. Police Officers (32%) and Officers in Charge (68%) have been trained on current emerging issues like terrorism and other crimes (Transparency International Kenya, 2016). These showed the importance of the problem.

Research Problem

The Kenya Police Service was established as per the National Police Service Act No. 11A of 2011 (2016) of the constitution and was divided into Kenya Police Service and Administration Police Service. The research on the occupational safety and health of Police Officers is even becoming of great significance in this age of terrorism and terror. This evil is permeating through all sectors of the economy, African countries and globally. This threat is alive in all economies like developing or developed including superpowers like the USA or Russia. This research will be useful to Police Officers so that they may be able to take care of themselves and then others. The police force normally has to undergo several safety workshops and schemes on how to stop and prevent terrorism and other forms of terror and violence. The police also ensure that they work in a good work environment, stay healthy and safe.

A total of 28 Police Officers were killed, 102 of them injured as they responded to robberies and attacks from terrorists in a 2015 crime report (National Police Service, 2019c). In a 2014 crime report, a total of 23 Police Officers were killed while 10 were injured and it included 10 dead civilians (National Police Service, 2019d). On 19th June 2011, in Lochakula camp, 4 Police Officers were shot sustaining injuries which led to 2 dying later on (National Police Service, 2019e). It was also reported that a lorry of GSU was blown up by the use of an improvised explosive device (IED) on 28th October 2011 in Liboi which led to the injuries of those Kenya Police Officers.

Research Focus and Justification

Many studies have been done on other antecedents of occupational safety and health of Police Officers. A research was done in Kisumu, another Kenyan city on the causes and relations of occupational stress among Police constables (Oweke et al., 2014). Other research has also been done on how work environment influences the performance of Police Officers (Baraza, 2017; Nderi & Kirai, 2017; Tengpongsthorn, 2017). Research has also been done on compensation of employees based on injuries or diseases which emanated from performing work related tasks leading to even death (Barrett, 2016). It has been found through research that Police Officers go through and experience a lot of psychological problems even up to retirement (Muthondeki et al., 2014).

Immigrants without documentation are faced with a lot of occupational safety and health even as they try to evade authorities (Flynn et al., 2015). This cat and mouse habit leads to stressful immigrant employees affecting their work and safety. Hundreds of Police Officers have to be mobilized to violently prevent immigrants from crossing borders to Europe. Police Officers also experience a lot of hopelessness (Violanti et al., 2016). It is added that this was caused by fear of dangers which are physical, lack of administrative and organizational support leading to high rates of suicides. It was argued that there was little academic research which has been done on Police Officers in Kenya (Muthondeki et al., 2014). There was a research gap on both occupational safety and health of Police Officers. The research’s aim filled this gap.
Literature Review

This chapter reviewed the literature on the variable of the research. The purposes of literature reviews as stated by Okoli and Schabram (2010) provide theoretical background of previous research. They add that these help in digging deeper on a research topic and try to get answers of questions under investigation. It normally forms part of an introduction. These scholars argue that literature reviews have to be systematic, explicit, comprehensive and reproducible by other researchers. Literature review according to Liao and Lucas (2009) is a thorough review of models and involves their limitations and improvements of the same. These help in laying a research foundation and identify any existing problems or gaps. They add that a discussion starts with theoretical review. In addition, several theories relevant to the study are then defined, explained and expounded. The discussion is followed by a research on conceptual framework and empirical review. The last part of the research is a critique of the literature, a summary and research gaps identified (Liao & Lucas, 2009).

Legal Framework

In the USA, foreigners who migrated there faced a lot of challenges for the laws were against them as they worked there (Flynn et al., 2015). They claim that when they fell sick or involved in accidents, the law does not safeguard them. It is important that Police Officers’ welfare is well gathered for unlike other professionals for they are exposed more to a lot of dangers and have a lot of stress (Habersaat et al., 2015). They state that this risk exposure makes them experience all sorts of physical diseases like those affecting their hearts and other psychological effects.

In the above USA research, it was found out that what affected the health of Police Officers at work included the way they and others perceived their job, their work environment and even organization of work. It was found out through research that there were normally little contrasting noticeable effects they experienced even as they worked in diverse settings and work (Habersaat et al., 2015). In another research, it was reported that out of 1000 employees, 11.1 made claims for serious accidents in the period 2012 to 2013 (Australia, 2014). They add that it was like making claims of 6.7 for every million hours a worker had worked. In those claims it was discovered that 90 percent were related to injuries and musculoskeletal problems (Australia, 2014). They add that diseases and mental problems in those claims had a share of 10 and 6 percent respectively. Police Officers and other military personnel were not part of the claims for theirs fell on a different legislation.

Theoretical Review

Fit or Contingency Approach Theory

The contingency approach was a great research of Hofstedes (Islam & Hu, 2012). It was developed in 1967 as stated by these scholars. In this research, it was found out that issues on economy, technological advancement, and even social aspects affected the making of budgets. It was further stated that Hayes in 1977 advocated for the use of contingency theories. It was claimed that it was useful when organizational behavior was studied. It was argued that contingency theory was a research on organization’s behavior and how contingent factors influenced the design and function of organizations (Islam & Hu, 2012). It meant that any organization’ outcome was a consequence of a fit or match between two or more factors which influenced it.

Contingency theory handled external and internal strategies (Derek, et al., 2008). They stated that an external strategy advocated that a human resource should work hand in hand with
the needs of clients. This meant that any human resource policies developed should be favorable to ensure that operations in a firm moved smoothly (Derek, et al., 2008). They claimed further that the model was useful for the management of employees to be effective workers. When it came to selection, they should have teamwork, sociable, cooperative unlike those who worked alone. One has to be appraised as per the way one supported the team. Rewards are also given according to the way a team performed. Employees are rewarded as per ones’ performance on the job. Performance is critical in harsh economic times.

In hard economic times, Niu (2010) stated that there were several problems which increased employees’ job turnover, restrictions at work and job transfers which became common as greener pastures were sought. It was found in this research that the cost of litigations became high. This was caused by increased lawsuits which were at times caused through corrupt dealings by lawyers and court clerks or agents. In such situations, work would also be poorly done by inexperienced employees who did not know their duties, roles and responsibilities. Furthermore, the capacity of dealing with emergencies was in doubt. Finally, costs in administration and handling personnel became high.

On the other hand, Niu (2010) stated that workers experienced the following: There were a high number of injuries and occupational diseases which led employees to experience a lot of sufferings and pain. The cost of medication increased as organizations strived to treat employees. Employees sought for off-duties and hence led to lost work time. Due to lack of work, future benefits and earnings were lost. The security of jobs and even career developments were in jeopardy. The care of children at home became a problem and family members had to provide home care support which brought in costs to go up. It led to family relations becoming strained. This resulted to employees not having self-worth and they lost their identity. There were some effects on social and common relationships. Finally, it also affected such social activities like that for recreation. Contingency theory is useful for the survival of organizations even in hard economic times like in the case of the global Corona pandemic, Covid-19. This theory supported the variable, legal framework by ensuring that organizations abided by the relevant laws and regulations for the occupational safety health of employees and success of organizations.

**Conceptual Framework**

The conceptual framework for this study is shown next in Figure 1.

**Figure 1**

*Conceptual framework*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Legal Framework Training on:</strong></td>
<td><strong>Occupational, Safety and Health (OSH):</strong></td>
</tr>
<tr>
<td>Constitution/Chapter 6</td>
<td>Level of Job Distress</td>
</tr>
<tr>
<td>IPOA, NPS, KNHCR Acts</td>
<td>No. of Fatal Accidents/Injuries at Work</td>
</tr>
<tr>
<td>NPS, OSHA Acts</td>
<td>Frequency of Sick Offs/Attend Clinics</td>
</tr>
<tr>
<td>Public Officer Acts,</td>
<td>No. of Shifts &amp; Change of Shift Times</td>
</tr>
</tbody>
</table>

*Source: Author, 2020*

Concepts are ideas or components which are made up in an area of study (Jabareen, 2009). In addition, concepts should have a background or history, for they originated from other concepts which had been developed out of something. It is further defined as a conceptual
framework which is a web of linkage between some ideas or concepts. It is added that the analysis of a conceptual framework as a methodology is used to come up with a framework as per a given theory. A conceptual framework analysis is beneficial for its flexibility, easy to modify and understand (Jabareen, 2009). It is stated further that one will not find any specific or standard way to come up with a conceptual framework. An example of a conceptual framework is a well-being which is compared with mental health (Huppert & So, 2013). They state that a well-being is the opposite of those in depression or anxiety which is a form of mental disorder.

**Legal Framework**

In a USA research, foreigners who migrated there faced a lot of challenges for the laws were against them as they worked there (Flynn et al., 2015). They claimed that when they felt sick or involved in accidents, the laws did not safeguard them. It was important that Police Officers’ welfare was well gathered for unlike other professionals where they were exposed more to a lot of dangers and had a lot of stress (Habersaat et al., 2015). They stated that risk exposures made them to experience all sorts of physical diseases like that which affected their hearts and other psychological effects.

In the above USA research, it was found out that what affected the health of Police Officers at work included the way they and others perceived their job, their work environments and even organization of work. It was found out through research that there were normally little contrasting noticeable effects they experienced even as they worked in diverse settings and work (Habersaat et al., 2015). In another research, it was reported that out of 1000 employees, 11.1 made claims for serious accidents in the period 2012 to 2013 (Australia, 2014). They added that it was like they made claims of 6.7 for every million hours a worker had worked. In those claims it was discovered that 90 percent were related to injuries and musculoskeletal problems (Australia, 2014). They added that diseases and mental problems in those claims had a share of 10 and 6 percent respectively. Police Officers and other military personnel were not part of what was claimed for theirs fell on a different legislation.

**Occupational, Safety and Health**

An occupational, safety and health of employees should be improved at the workplace in order to minimize or get rid of the many injuries they faced (Nielsen, 2014). In addition, it was important that employees changed their perception on safety so that they would have a positive culture on the same. Many organizations have even resorted to employing or assembling a team of lawyers to advice on human resource issues which included employees’ safety (Nielsen, 2014).

In a USA study, it was found out that immigrants were highly discriminated employees in terms of their safety (Flynn et al., 2015). This led to serious accidents to them. As a result, occurrence of accidents to them was to the tune of 67% of them. These are employees who got involved in deadly accidents which led to their death between the years 2003 to 2006 as compared to 1992 where it was only 52% (Flynn et al., 2015). They stated further that those injured employees even preferred to terminate their lives instead of accepting to go back to their original countries which were full of poverty.
Research Methodology

General Background

The methodology of this research is a discussion on the ways which was done in scientifically accepted ways. This involved the research designs used, the philosophies which were followed or adhered to, target population, sample size, sampling frames and sampling techniques used. The research design meant the methods which were used that helped in carrying out the study. These included descriptive and inferential. The type of research chosen was positivism philosophy. The scope of the research was Police Officers in Nairobi City County and it identified a target population of 4,000. A sample of 5% was chosen because the population was in thousands recommended by researchers (Mugenda, O., & Mugenda, 2003; Nwana, 1981; Nwana, 1982; Nzuve & Njeru, 2013). The method of collecting data was by the use of questionnaires which were later coded, findings analyzed using SPSS and presented in tables, figures and charts. The research was approved by National Commission of Science Technology and Innovation (Nacosti, Kenya) in February 2019. A pilot study of 10% was initially done before the main research was done as explained next.

A Pilot Study and Sample

A pilot study can be defined as an imitation of the real research (Dikko, 2016). In this research it was claimed that it was normally done prior to doing the real research. The aim normally is to try and test research instruments. A pilot study was used to identify any instrument which would not work or problems to be encountered and know how to resolve them (Dikko, 2016). They are normally good for all types of research like qualitative and quantitative. In the research at the time, there were thirty-three Police Stations in Nairobi County. Three of them were picked for doing pilot testing. The police stations that were chosen for pilot studies were not included in the final main research. This was to avoid any bias. It was through such pilot study that the research was able to identify errors in questionnaires which were corrected. They became useful tools in detecting problems before the main research was done. A sample of 5% of Police Officers was randomly chosen during the main study as per recommendations of other scholars (Mugenda, O., & Mugenda, 2003; Nwana, 1981; Nwana, 1982; Nzuve & Njeru, 2013).

A proportion of a population defined a sample (Zikmund et al., 2013). Here a sample referred to a small percentage of the whole target population which a researcher was interested in (Gog, 2015). Sampling referred to the techniques which a researcher used to arrive at a sample size. It is from this sample size which researchers used to make generalization in research findings. The research used a 5 percent sample size as other researchers recommended when a population is in thousands as earlier stated. Sampling is something to do with a target population which a research carried out from and the researchers had interest in and findings concluded are derived from (Coners & Matthies, 2014).

Research Instruments and Procedures

When instruments are chosen, researchers should ensure that they are accurate. When this precaution is taken, it will lead to having reliable instruments. When a research instrument is severally used and its results are consistent, it meant that they were reliable (Heale & Twycross, 2015). They posit that it was important that research instruments used in data collection were checked on their reliability when doing and critiquing research. They add that Cronbach Alpha Coefficient scores are used, and they should have a range of 0 to 1 where .7 and above were an allowed reliable score. Research instruments tested on correlations and they showed that they were strong when they were high and vice versa (Heale & Twycross, 2015).
In the pilot study, the researcher was able to counter check the research instruments which had been used and ensured that they were good, and data were acquired. It was also verified that the data collected were valid and reliable. It was through this pilot study that the researcher was able to know all the questions covered all the items needed and they were reasonable in terms of what was being measured. This initial research was personally done by the researcher and errors identified were corrected early enough before the main research was done.

The definition of validity is the level at which a concept was able to be measured well in a quantitative research (Heale & Twycross, 2015). In order to be sure that questionnaires as research instruments were valid, a 10 percent pretesting was done on a target population (Cudjoe et al., 2015). It is argued that the aim of validity was to ensure that any research instrument tested had attained its aim in measuring any given concept (Dikko, 2016). In other situations, there should be ways of identifying validity. For example, validity can be constructed. A research can construct a validity instrument to be used for measurement, for example 90 percent. The moment data attained such a level, it meant then that an instrument of collecting data was valid. It may be difficult to measure some concepts, but they can instead be measured through observation.

**Data Analysis**

There are several types of variables which are used in studies. A variable is a factor which can have an effect on other subjects and has values. So, we need to operationalize variables to have meaning in a study. Several variables have diverse ways of measuring or analyzing them as argued by (Mugenda, O., & Mugenda, 2003). These scholars add that the following: time, volume, length, age, sex, temperatures and so forth have had their own ways of measuring them. Independent variables cannot be influenced, for example environmental, personalized, age, gender, race, color, location, nationality and so forth. These have fixed properties which cannot be influenced. A dependent variable on the other hand is a factor of the independent one. The former affected them. For example, the longer persons spent in studying for exams, the higher was their success.

There are also control variables (Mugenda, O., & Mugenda, 2003). If that was suspected by the research, they had to be included. They add that researchers had to find out if there were such variables which influenced any findings without the knowledge of the research. Data collected in this research were analyzed using SPSS 2.0 computer software. The results were then presented in form of charts, tables, and figures.

**Research Results**

*Factor Loading for Legal Framework*

Factor analysis was carried out on the listed stated questions on legal frameworks. As indicated by Tabachnick and Fidell (2007), variables with factor loading which had Eigen values greater than .5 were considered good. Factor loadings for legal framework are presented in Table 1. The results on Table 1 show that all the listed stated questions on legal frameworks have factor loading values greater than .5 and therefore they are accepted and thus no sub variable is dropped. The highest item on the usefulness of KNHR Act in promoting very well the rights of Police Officers at all times and protecting or supporting their OSH has a factor loading of .643. The lowest item on the usefulness of Public Officer Ethics Act in promoting and doing jobs professionally but with integrity and in protecting or supporting officer’s OSH has a measure of .503. All the eight (8) items were therefore retained for analysis.
### Table 1
Factor analysis for legal framework

<table>
<thead>
<tr>
<th>Listed Stated Questions</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>How helpful is the new constitution which established Kenya Police and Administration</td>
<td>0.597</td>
</tr>
<tr>
<td>Police with one command in protecting or supporting your OSH?</td>
<td></td>
</tr>
<tr>
<td>How helpful is the Codes of Conduct in smooth running of operations and protecting or</td>
<td>0.601</td>
</tr>
<tr>
<td>supporting your OSH?</td>
<td></td>
</tr>
<tr>
<td>How helpful through NPSC, does IPOA as it manages or monitors Police activities like</td>
<td>0.559</td>
</tr>
<tr>
<td>recruitment, qualifications &amp; appointment in protecting or supporting your OSH?</td>
<td></td>
</tr>
<tr>
<td>How helpful does KNHR Act in promoting very well the rights of Police Officers at all</td>
<td>0.643</td>
</tr>
<tr>
<td>times &amp; protecting or supporting your OSH?</td>
<td></td>
</tr>
<tr>
<td>How helpful does the NPS Act in lifting the moral of Police Officers and protecting or</td>
<td>0.572</td>
</tr>
<tr>
<td>supporting your OSH?</td>
<td></td>
</tr>
<tr>
<td>How helpful is the Occupational Safety Health Act (OSHA) of Kenya in protecting or</td>
<td>0.583</td>
</tr>
<tr>
<td>supporting your OSH?</td>
<td></td>
</tr>
<tr>
<td>How helpful is the Public Officer Ethics Act which promotes doing a professional job</td>
<td>0.503</td>
</tr>
<tr>
<td>with integrity and in protecting or supporting your OSH?</td>
<td></td>
</tr>
<tr>
<td>How helpful has our laws effectively handled issues like Terrorism, sexual offences,</td>
<td>0.628</td>
</tr>
<tr>
<td>Cyber Crimes &amp; in protecting or supporting your OSH?</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author, 2020

### Descriptive Statistics

Legal Framework

Legal Framework was the second independent variable of this research. The research had done an analysis on how a given legal framework affected the Occupational, Safety and Health of Police Officers. A Likert scale of 1 to 5 (1 = Very poor, 2 = Poor, 3 = Acceptable, 4 = Good, 5 = Very Good) was used and the mean response rate from the respondents calculated. For the purposes of interpretation 4 & 5 (Good and Very Good) were grouped together as Good, 1 & 2 (Very poor and Poor) were grouped as Poor while 3 was Acceptable. The descriptive statistics for legal framework are presented in a table.

The results of research show that (60.20%) of the respondents indicate as good for the question which had asked on the helpfulness of the new constitution which established Kenya Police and Administration Police with one command in protecting or supporting your OSH?. It also shows that 16.50% indicate poor while 23.20% of the respondents indicate acceptable. The results show a mean of 3.56 and standard deviation of .95. The results also show that majority (68.20%) of the respondents indicated, good for the question on the helpfulness of the Codes of Conduct in smooth running of operations and protecting or supporting Police’ OSH. On the other hand, 9.30% of the Police indicate poor while 22.50% of the respondents indicate acceptable. The responses have a mean of 3.84 and standard deviation of .93.

In addition, the results show that (51.00%) of the respondents responded by indicating, good for the question which asked on the helpfulness through NPSC, does IPOA as it manages or monitors Police activities like recruitment, qualifications & appointment in protecting or supporting your OSH?, 10.60% indicated, poor while 38.40 responded by indicating, acceptable. The responses had a mean of 3.46 and standard deviation of .91. Similarly, the results show that
(65.50%) of the respondents indicate, good for the question which had asked on the helpfulness of KNHR Act in promoting very well the rights of Police Officers at all times and protecting or supporting their OSH. Alternatively, 5.20% indicate, poor while 29.10% of the respondents indicate, acceptable. The results have a mean of 3.76 and standard deviation of .88. Furthermore, it shows that (59.00%) of the respondents respond by indicating, good for the question which asked, on the helpfulness of NPS Act in lifting the moral of Police Officers and protecting or supporting their OSH. It also shows that 9.90% indicate poor while 31.10% of the respondents indicate, acceptable. The responses had a mean of 3.58 and standard deviation of .87.

In addition, (61.60%) of the respondents respond by indicating, good to the question which had asked the helpfulness of Occupational Safety Health Act (OSHA) of Kenya, that is in protecting or supporting their OSH. Also, 10.60% indicate, poor while another 27.80% indicate, acceptable. The results had a mean of 3.64 and a standard deviation of .95. Similarly, the results show that 52.30% of the respondents indicate as good to the question which had asked on the helpfulness of the Public Officer Ethics Act which promotes doing a professional job with integrity and in protecting or supporting their OSH. Further, 13.20% indicate poor while 34.40% of the respondents indicate, acceptable. The results had a mean of 3.49 and standard deviation of .94.

Finally, the results show that, (59.60%) of the respondents respond by indicating, good to the question which had asked on the helpfulness of Kenyan laws in effectively handling issues like Terrorism, sexual offences, Cyber Crimes and in protecting or supporting their OSH?. Another 13.90% of the respondents indicate as poor while 26.50% indicate, acceptable. The results had a mean of 3.61 and a standard deviation of 1.13. In general, the results had an average mean and standard deviation of 3.62 and .94 respectively implying that most respondents indicate as good to most of the questions however, their responses were spread about the mean.

The above studies are in agreement with previous findings on Police Officers. It was found out through research that employees like making claims of 6.7 for every million hours a worker had worked. In those claims it was discovered that 90 percent were related to injuries and musculoskeletal problems (Australia, 2014). They add that diseases and mental problems in those claims had a share of 10 and 6 percent, respectively. Police Officers and other military personnel were not part of the claims for theirs fell on a different legislation. In another research, Metropolitan Police rated fairly on Police rules and regulations which were not clear (Tengpongsthorn, 2017). Such rules lead to their suppression and needs to be revised. In this research, company policy is rated $r=.367$ and $p=.00$ ($p<.01$) which is significant at .05 level of significance.

### Diagnostic Tests/Tests of Assumptions

Test for Normality of Data

Kolmogorov Smirnov was used to test for normality for all the dependent variable and the results are displayed in Table 2. This was to find out on the p-values and extend of curve from the mean. The results in Table 2 indicate the dependent variable was normally distributed since p-values were greater than .05 for both Shapiro-Wilk and Kolmogorov test. These values confirm further that the data was normally distributed. In addition, normality was visualized using the Q-Q plot for the dependent variable and the diagram representation is illustrated in a figure.
Table 2
Test for normality

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Occupational, Safety</td>
<td>.095</td>
<td>151</td>
</tr>
<tr>
<td>and Health</td>
<td>a. Lilliefors</td>
<td>Significance</td>
</tr>
</tbody>
</table>

*Source:* Author, 2020

Test for Linearity

When we have a description of relationship between a predictor and target variables, we have linearity. A situation where an independent variable shows a straight-line relationship with the dependent variable is a straight-line description. This is as shown in Figure 2.

**Figure 2**
Graphical Diagram for Linearity

*Source:* Author, 2020

Test of Heteroscedasticity

Breusch-Pagan is used in null hypothesis and the error variance remains constant but not for alternative hypothesis where error variances are not constant. Heteroscedasticity is shown next in Table 3.
Table 3
Heteroscedasticity results

<table>
<thead>
<tr>
<th>Breusch-Pagan / Cook-Weisberg test for heteroscedasticity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ho: Constant variance</td>
</tr>
<tr>
<td>Variables: Fitted values of Occupational, Safety and Health</td>
</tr>
</tbody>
</table>

\[
\chi^2 (1) = 0.28 \\
\text{Prob} > \chi^2 = 0.6668
\]

Source: Author, 2020

Regression Analysis

Regression Analysis for Legal Framework and Occupational, Safety and Health of Police Officers

Regression analysis was conducted to determine the relationship between Legal Framework and Occupational Safety and Health of Police Officers. Table 4 presents the regression model fitness on Legal Framework versus Occupational Safety and Health of Police Officers. As presented in Table 4, the coefficient of determination R Square is .466 and R is .683 with a p-value of 0.000. This is less than the 0.05 level of significance. The model indicates that Legal Framework explains 46.6% of the variation in Occupational Safety and Health of Police Officers. This means that 46.6% of the Occupational Safety and Health of Police Officers are influenced by Legal Framework.

Table 4
Model fitness for legal framework on occupational, safety and health

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.683*</td>
<td>.466</td>
<td>.463</td>
<td>.50461</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Legal Framework

Table 5 shows the ANOVA results for legal framework on Occupational, Safety and Health of Police Officers. The ANOVA results presented in Table 5 show that the model is statistically significant in explaining the influence of legal framework on Occupational, Safety and Health of Police Officers in Kenya as indicated by a p-value of p<.0001 at .05 level of significance.
Table 5
ANOVA for Legal Framework on Occupational, Safety and Health

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>$\mu^2$</th>
<th>$f$</th>
<th>$p$&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>33.121</td>
<td>1</td>
<td>33.121</td>
<td>130.074</td>
<td>.0001*</td>
<td></td>
</tr>
<tr>
<td>1 Residual</td>
<td>37.940</td>
<td>149</td>
<td>.255</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>71.062</td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Occupational, Safety and Health

The regression coefficient results for the effect of legal framework on Occupational, Safety and Health of Police Officers are presented in Table 6. The regression coefficient results in Table 6 show that there is a positive and significant relationship between legal framework and Occupational, Safety and Health of Police Officers in Kenya ($\beta=0.587$, $p=.0001$) at .05 level of significance. The gradient coefficient shows the extent to which a unit change in the independent variable causes a change in the dependent variable which is the change in Occupational, Safety and Health of Police Officers due to a unit change in legal framework. This implies that a unit change in legal framework results into an improvement in Occupational, Safety and Health of Police Officers in Kenya by .587 units.

Table 6
Regression coefficient results for legal framework on occupational, safety and health

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>1.006</td>
<td>.173</td>
<td>5.817</td>
<td>.0001</td>
</tr>
<tr>
<td>Legal Framework</td>
<td>.587</td>
<td>.051</td>
<td>.683</td>
<td>11.405</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Occupational, Safety and Health

$LF= 1.006+ 0.587X_2$

Where $X_2$ = Legal Framework

Hypothesis Testing

The second Hypothesis Tested was:

HAii: There is a significant relationship between Legal Framework and Occupational, Safety and Health of Police Officers in Kenya.

Legal Framework Summary Hypothesis Testing
The hypothesis was tested by using multiple linear regressions and determined using p-value and t-statistic. The acceptance/rejection criteria were that, if the p value is less than .05, we do not reject the $H_{null}$ but if it is more than .05, then $H_{null}$ is rejected. Therefore, the alternative hypothesis was that there is a significant relationship between legal framework and Occupational, Safety and Health of Police Officers in Kenya. Results in Table 5 show that the p-value was .000. This was supported by a calculated t-statistic of 5.581 which was larger than the critical t-statistic of 1.96. The alternative hypothesis was therefore not rejected. The research adopted the alternative hypothesis that there is a significant relationship between legal framework and Occupational, Safety and Health of Police Officers in Kenya.

**Discussion**

*Legal Framework and Occupational, Safety and Health*

The Legal Framework was the second independent variable in the research. The research analyzed on how legal framework affected Occupational Safety and Health of Police Officers. The correlation analysis results reveal that there is a strong positive and significant association between Legal framework and Occupational Safety and Health of Police Officers ($r=.683$, $p=.001$) at .05 level of significance. In addition, the results of this research show that there is a positive and significant relationship between legal framework and Occupational Safety and Health of Police Officers in Kenya ($\beta=.587$, $p=.0001$) at .05 level of significance. The findings of this research indicate that a unit change in legal framework results into an improvement in Occupational Safety and Health of Police Officers in Kenya by .587 units.

*Correlation of Research*

In a USA research, it was found out that the government allowed the use and owning of guns legally, but people still possessed them not for game hunting but personal protection (Cook & Pollack, 2017) which endangered Police Officers. In this research, men as compared to women, (coefficient -1.347, $p < .001$) were more likely to own guns. They added that it also applied to Whites, low income earners, illiterates, and those in rural areas. In another research, the correlation of soldier’s RWS, RWU and Hardiness was found to have $p$-values < .01, < .01 and < .01 respectively with significant relationship with soldier’s CR, Combat Readiness (Shinga & Dyk, 2015). It meant that the way soldiers were legally formed had an effect on their readiness to work, which affected their occupational safety and health.
Studies were done in the United Kingdom on the effectiveness of a legal framework as compared to Nigeria. It was found out in the UK studies that places of work had become much safe in such developed countries throughout the years (Abubakar, 2015). This scholar stated that the accidents which were fatal per year at the rate per 100,000 full time work equivalent had reduced from .8 in 2003 to .74 in 2011 as a result of occupational safety and health regulations. In this way, regulations and enforcement frameworks helped in making employees safer at their workplaces.

**Summary of Legal Framework and Occupational, Safety and Health**

Legal Framework was an independent variable of this research. In the research, an analysis was done on the ways a given legal framework affected the Occupational Safety and Health of Police Officers. The correlation analysis results reveal that there is a strong positive and significant association between Legal framework and Occupational Safety and Health of Police Officers (r=.683, P-value=0.00) at .05 level of significance. In addition, the results of this research show that there is a positive and significant relationship between legal framework and Occupational Safety and Health of Police Officers in Kenya (β=.587, p=.000) at .05 level of significance. The findings of this research indicate that a unit change in legal framework results into an improvement in Occupational Safety and Health of Police Officers in Kenya by .587 units.

**Conclusions**

The legal Framework was an independent variable in this research. The research analyzed on the way legal framework affected Occupational Safety and Health of Police Officers. Based on the findings, the research concludes that a legal framework positively and significantly affected the Occupational Safety and Health of Police Officers in Kenya. An improvement in a legal framework leads to a corresponding improvement in Occupational Safety and Health of Police Officers. The research further concludes that for Police Officers to feel satisfied in their profession, feel safe as they perform their duties and be in good health to perform their task effectively, legal framework in the Kenya Police Service must always be improved.

**Conflict of Interest**

The author has no conflict of interest in this academic research.

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