# ROLE STRESSORS AND JOB PERFORMANCE: A POSITIVIST EVALUATION OF ACADEMIC STAFF IN PUBLIC UNIVERSITIES IN KENYA

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*Abstract: The need for this study was informed by the fact that poor job performance among academic staff of universities had been evident as attested to by Kenya being position 97 out of 137 in the higher education sector category rankings. It had been further revealed that Kenya was ranked position 100 out of 132 countries in global innovation index in the year 2023 among other key performance indicators in the global arena. To remedy the situation, studies had been carried and recommendations given which included changes in top organizational managers' behaviour, improvement of work environment, organizational communication and employee empowerment. But among the studies, hardly had any recommended interventions focusing on role stressors that affect the staff who discharge the core mandate of universities. There was therefore a need for this study to be carried out whose objective was to evaluate the influence of role stressors on job performance. It was anchored on the Person-Environment Fit theory and supported by the Transactional model of stress and coping. A positivist research philosophy was adopted with a descriptive research design. Data was collected using questionnaires after which both descriptive and inferential analyses were carried out. This study established that role stressors had a statistically significant negative association with job performance which was consistent with the predictions of the Person-Environment Fit Theory. This study therefore recommends that university managers be proactive in reducing role stressors which can be done through wide and thorough consultations during deployment of staff to various roles as well as proper job design.*

**Index Terms – Role stressors, Job performance**

## 1.0 Background

There has been a problem of poor job performance among academic staff of universities as evidenced by the World Economic Forum placing Kenya university education subsector at position 97 out of 137 countries, with a Global Competitive Index (GCI) score of 3.8 out of a possible 7, in the higher education and training pillar (World Economic Forum, 2018). A similar position was attained in the year 2023, where Kenya was ranked position 100 out of 132 countries in global innovation index, at position 104 in innovative inputs indices and position 91 in innovative outputs indices (World Intellectual Property Organization (WIPO), 2023). In the same report Kenya was ranked position 118 out of 132 in the labour productivity growth sub-indicator. This unsatisfactory performance in innovation aspect can logically be attributed to the institutions of higher learning where skills, knowledge and proper attitude towards research and innovation are expected to be the inculcated. Since organizational performance is the sum total of individual employee job performances (Tarmidi & Arsjah, 2019), it can be argued that the unsatisfactory overall performance of the university education subsector in Kenya is directly attributable to the members of staff, specifically the academic staff. It is the academic staff who discharge the core mandate of universities which are teaching and research.

Prior to the conduct of this study, it was established that interventions to remedy the problem of poor job performance had been proposed but the problem still persists. Some of the interventions proposed include change in behaviour for top organizational managers, alteration of work environment to make it employee friendly and enhanced organizational communication (Karnati et al. 2020). Diah and Cahyadi (2020) built a strong case for employee empowerment as a way of improving job performance. Khawaldeh (2023) rooted for training of employees as an effective remedy for poor job performance. Daryoush et al. (2013), in their review of interventions for improving job performance argue that it could be improved through formal, informal and incidental types of on-the-job learning. After review of the existing literature, this study noted that hardly had any of the previous studies approached the problem of job performance from role stressors point of view with a special lens focused on the academic staff of universities. Those studies that had attempted had various gaps which could not allow all time generalizations of their findings to the academic staff of public universities in Kenya. A case in point was Karihe (2016) which used motivational theories to explain stress-job performance relationship. It was therefore imperative for this study to be carried out.

In a work environment, role stress arises out of an employee's perception of the expectations on them as dictated by their positions in the organization (Kenny, 2014). Trayambak et al. (2012) argue that role stressors are conditions about role assigned to an employees that create negative consequences on the individual employee. Mustafa et al. (2015) indicate that though all employees are affected by occupational stress, a particular person's position, and hence their role, in the organization influences their level of anxiety and stress. Some of the role stressors that have been identified by researchers and players in the field of management are role ambiguity, role conflict and role overload (Trayambak et al., 2012). Role ambiguity occurs when an individual has inadequate information about his role at work (Musyoka et al., 2012). The authors argue that employees may also experience role ambiguity whenever they are assigned new roles in their organizations as well as after joining new organizations. On the other hand, role conflict exists when an employee is expected to perform roles in an organization that are in conflict with one another (Trayambak et al., 2012). This implies performing well in one role leads to poor performance in another role. This further implies that the employee feeling of achievement after performing a task, eats into their joy as they may have failed in another one. Lastly, role overload is experienced when an employee has too many roles to handle satisfactorily as per the targets in the organization. However, role overload has two distinct manifestations, which are qualitative role overload and quantitative role overload (Sunanda, 2018). Qualitative role overload exists when an employee is assigned a role that has too many tasks and therefore difficult to carry out efficiently. On the other hand, quantitative role overload exists when the roles assigned to an employee in an organization are too many and therefore difficult to complete in time. All these role stressors have been found to influence job performance (Masuku & Muchemwa, 2015).

On the other hand, job performance is the extent to which predetermined job targets have been achieved by an employee (Kazan & Gumus, 2013). Lewa (2014) adds that job performance is not just what employees achieve, but also the process through which they achieve the intended output. Therefore job performance can be seen as both a behaviour and an outcome. The importance of job performance in the dynamic environments where organizations carry out their operations has been seen to rise in the recent past (Ivanov & Avasilcăi, 2014). This has led to managers appreciating the need to come up with various approaches to job performance measurement, the authors add. But the main aim of job performance measurement is appraising the organization's position so as to help the stakeholders and organizational management develop and implement strategies for enhanced performance, the authors argue. Moreover, job performance measurement is necessary because an organization exists and fulfills its obligations depending on the extent to which it achieves its goals and mandates as agreed upon by the stakeholders (Molefe, 2010).

But in universities, job performance measurement has been receiving a *laissez-faire* approach, with a good measure of mistrust, which has been hoped will lead to academic freedom, independent thinking and scholarship (Molefe, 2010; Igbojekwe & Ugo-Okoro, 2015). This could be due to the fact that universities as institutions are complex and heterogeneous which makes measurement of its staff job performance quite a challenge (Secolsky, 2018). Therefore, when it comes to the education sector, Igbojekwe and Ugo-Okoro (2015) argue that teaching is not only composed of the content delivered to learners but also encompasses the methodology through which the subject content is delivered. A caution is however given by Koopmans et al. (2011) that behaviours considered as part of job performance should be those that are geared towards attainment of the institutional goals, objectives, missions and mandates. Additionally, job performance depends on the competencies that the employee has acquired (Ivanov & Avasilcăi, 2014). It can therefore be logically argued that employee's competence in performing given job tasks should be considered alongside their job performance (Molefe, 2010). It should however be done in an objective though the construct is amorphous, latent and made up of numerous dimensions (Koopmans et al., 2013; Secolsky, 2018).

In Kenyan universities, job performance is measured using four parameters identified by CUE (2014) which are teaching, administration and responsibility, community engagement and other contributions, and lastly the research aspect. The research aspect is premised on the fact that organizations may be offering similar products, but one way of obtaining enhanced performance is through innovation which is mainly informed by research, (Ivanov & Avasilcăi, 2014). In universities, the academic staff are thus expected to teach and carry out research as these two form the core mandate of those institutions (Mukhwana et al., 2016). In this study job performance was therefore measured using teaching, administration and responsibility, community engagement and other contributions, and lastly research as identified by CUE (2014).

## 1.1 Statement of the Problem

Job performance of academic staff of universities in Kenya has been noted to be unsatisfactory for quite a while as can be inferred from the poor scores of the country in some key performance indices including global innovation index, global competitive index, innovative inputs index and innovative outputs index among others. The poor performance of the subsector can logically be attributed to the academic staff who are charged with delivering the core mandate of teaching and research in the universities. This is because outcome of a learning process mainly depends on the academic staff. Studies on possible interventions for poor job performance have been carried out, where change in behaviour for top organizational managers, alteration of work environment and enhanced organizational communication, employee empowerment and training of employees featured prominently. But among the existing studies, hardly had any of them proposed interventions that touch on role stressors as experienced by the academic staff. It was therefore imperative that this study be carried out.

**1.2 Research objective**: To evaluate the influence of role stressors on job performance of academic staff of public universities in Kenya.

**1.3 Research Hypothesis, H$_0$**: Role stressors do not have a statistically significant influence on job performance of academic staff of public universities in Kenya.

## 2.0 Literature Review

This study was anchored on the Person-Environment (P-E) Fit Theory. This theory can be traced back to the year 1909 when Frank Parsons posited that employee characteristics should match the requirements of a particular job (Wang & Wang, 2018). It hinges on four aspects of roles of an employee namely; the role assigned, the dimensions of the role, what the employee prefers to have as a role in an organization and lastly the actual role assigned to the employee (Edwards & Billsberry, 2020). Lack of match between the role of an employee and the employee skills, competencies, knowledge and aptitude reduces their personal sense of well-being, which may result in role stress, the authors add. The theory has been modified over time by various researchers among them being Conway, Vickers and French, to be what it is today  (Roberts & Robins, 2004). One merit of the P–E Fit theory is that the fit is based on a match between employee characteristics and their role which is critical for employee and organizational well-being (Dewe et al., 2012). The theory has the disadvantage of being static whereas the work environment is continually evolving. This limitation is, nonetheless, outweighed by the significant contributions which the theory has made to the practice of management (Dewe et al., 2012).

The P-E Fit theory was applicable in this study due to the fact that after restructuring of the university education sector, the academic staff were assigned more roles that were not initially in their offer of employment and therefore not clearly spelt out. The academic staff may also not have been adequately equipped to carry them out since they may not have had the necessary training. Additionally, more details were added to the roles that they were performing leading to more work for them (Masuku & Muchemwa, 2015). Moreover, some tasks may have been allocated to different employees leading to role conflict, role ambiguity and role overload (both qualitative and quantitative). Additionally, members of the academic staff were assigned more teaching units with huge class sizes, which may have overwhelmed them. This may have made their career growth difficult as they paid more attention to teaching the large classes thereby ignoring publishing which in necessary for career growth (Mukhwana et al., 2016). Additionally, the Transactional model of stress and coping was borne in mind in this study. This is a model, that was developed in the year 1984 by Lazarus and Folkman and explains the stress process (Frings, 2017). It lays emphasis on individual judgment and appraisal of the various sources of stress, which provided a justification for the use of self-administered questionnaire in collection of primary data.

Several studies had been conducted on role stress with similar as well as contradictory findings. A study was carried out by Nor and Huda (2016) on the academic staff of one university in Malaysia. A sample of 421 respondents was picked and self-administered questionnaires used to collect data from them. The study found out that a majority (60.8%) experienced stress due to their specific roles in the organization. The study also found out that the number of hours worked and heavy workload were determinants of stress which has an effect of job performance. Moreover, the study found out that numerous roles which did not fit the timelines provided resulted in higher risk of stress. Employees with enormous responsibilities and role overload also tended to spend more time in their jobs which resulted in having a high risk of occupational stress and burnout. The study concluded that the presence of role stress in an organization led to poor job performance. An article by Jones  (2019) confirms that the role of an employee in an organization is indeed a statistically significant source of stress among academic staff of universities.

The study by Karihe (2016) established that managers of the public institutions were responsible for ensuring that daily operations of the organizations was smooth by ensuring that employees were assigned reasonable  number of roles and that those roles were within their skills, knowledge and abilities. Further, the study argued that incidences of role ambiguity and role conflict were affecting employees' ability to effectively perform their jobs. Another study was conducted by Masuku and Muchemwa (2015) on Christian University lecturers in Zimbabwe in which a small sample of 36 lecturers, to whom self-administered questionnaires were distributed, was picked. The study established that most of the lecturers were stressed in their work due to heavy workloads, unrealistic targets and deadlines as well as long working hours. That situation had a negative effect on their job performance. The results of another study that was carried out by Keshavarz and Mohammadi (2011) indicate that role conflict and role ambiguity were medium contributors to occupational stress which affect job performance negatively. Another study done by Akgunduz (2015) revealed that role stressors impacted negatively on job performance. However, a contrary finding was arrived at by Liaw et al. (2019), who established that role stressors do not have any statistically significant effect on job performance.

## 2.1 Operational Framework

From the reviewed literature, it was clear that role stressors influence job performance and hence the study was operationalized as presented in figure 2.1.
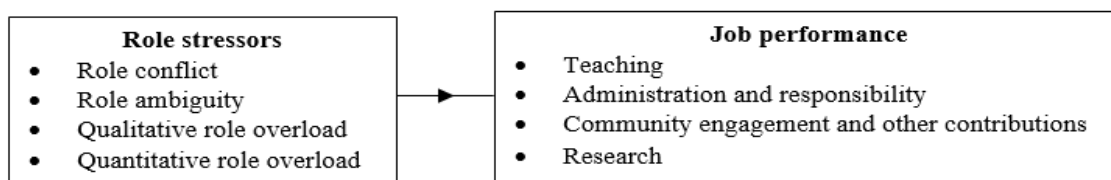
| Role stressors | Job performance |
|---|---|
| • Role conflict | • Teaching |
| • Role ambiguity | • Administration and responsibility |
| • Qualitative role overload | • Community engagement and other contributions |
| • Quantitative role overload | • Research |

*Figure 2.1 Operational framework for role stressors and job performance*

## 3.0 Methodology

This study adopted a positivist research philosophy. A research philosophy refers to a view or position taken in a study with regard to development of knowledge, and the essence of knowledge thus developed (Mauthner, 2021). A positivistic research philosophy adopts a stance similar to that of physical sciences as it involves studying an observable construct where law-like generalizations, similar to those of the physical sciences are developed (Sheppard, 2020). According to Mohajan (2018), a positivist researcher uses a structured research methodology so as to facilitate replication by other potential researchers thereby achieve objectivity and reliability in the research processes. The study adopted a descriptive research design. According to Sheppard (2020), in a descriptive research design, the study seeks to describe a phenomenon as it naturally exists without any manipulation of the constructs or the

variables. The target population was the academic staff of public universities in kenya for which a report by Commission for University Education (CUE, 2019) indicates that there were 14,013 members of the academic members. It was made up of 1,252 professors, 1,830 senior lecturers, 5,879 lecturers and 5,052 assistant lecturers. Therefore stratified random sampling was done. The sample size was determined using Taro Yamane formula for finite population which is given by; $n = \frac{N}{1+Ne^2}$, where n is the sample size, N is the size of the target population and e = the level of significance. This formula gave a sample size of 389. But during data collection, oversampling was done to 506 after addition of 30% of the sample size to the already computed sample so as to cater for non-response as advised by Israel (2003). Samples in the various strata and distribution of questionnaires was done as indicated in table 3.1.

*Table 3.1 Population, Sample Size and Questionnaires Issued per Stratum*

| SN | Strata | Population size | Sample size | Questionnaires issued |
|----|--------|-----------------|-------------|------------------------|
| 1. | Assistant lecturers | 5,052 | 141 | 183 |
| 2. | Lecturers | 5,879 | 163 | 212 |
| 3. | Senior lecturers | 1,830 | 51 | 66 |
| 4. | Professors | 1,252 | 35 | 45 |
| | Total | 14,013 | 389 | 506 |

In this study, primary data was collected using a self-administered questionnaire in the form of a hard copy or an online one, depending on the respondent's choice. The questionnaire consisted of questions which were addressed directly to the employees on various role stressors in their workplace. The respondents were expected to answer questions on a five-point ratio Likert scale. According to Wright (2014), the ratio scale consists of real numbers which allow fractions and decimals as there is a true zero on the number system. The five-point ratio Likert scale for the independent variable was; strongly disagree, disagree, neutral, agree and strongly agree.

With regard to the dependent variable, the teaching parameter of academic staff had seven items on various teaching aspects identified by Molefe (2012), to which the respondent answered on a five point ratio Likert scale which were; strongly disagree, disagree, neutral, agree and strongly agree. The parameter of Administration and responsibility had a dichotomous interval scale of 'yes' and 'no'. The same case applied to community engagement and other contributions which also had a dichotomous interval scale of 'yes' and 'no'. The research performance was measured using interval scales for publication count, download count and citation count dimensions. Each of them had an interval Likert scale with the following ranges; 0-5 times, 6-10 times, 11-15 times, 16-20 times, 21 times and above. The intervals in the Likert scale for publishing performance were informed by guidelines provided by CUE (2014). Similar parameters for measuring performance of academic staff of universities are provided by Maimela and Samuel (2016). The research tool was piloted and found to have a Cronbach's Alpha coefficient (α) of .805> .700. According to Picardi and Masick (2014), a value of 0.7 and above is considered acceptable and therefore, the same was adopted in this study. The validity of the tool was discussed with experts. Descriptive and inferential data analyses were carried out using the Statistical Package for Social Scientists (SPSS), version 26.0 software. After data analysis it was presented in tables and graphs.

## 4.0 Data Analysis Results and Recommendations

Primary data was collected and table 4.1 provides a breakdown of the questionnaires that were expected to be returned after oversampling was done to 506 and proportionately shared out in the various strata as earlier discussed. It also includes the number of questionnaires that were returned and the corresponding computed percentage of the response rates in their respective strata.

*Table 4.1 Response Summary*

| SN | Stratum | Questionnaires Issued | Sample Size | Questionnaires Returned | Return Percentage (%) |
|----|---------|------------------------|-------------|--------------------------|------------------------|
| 1. | Assistant Lecturers | 183 | 141 | 118 | 83.68 |
| 2. | Lecturers | 212 | 163 | 109 | 66.87 |
| 3. | Senior Lecturers | 66 | 51 | 45 | 88.23 |
| 4. | Professors | 45 | 35 | 27 | 77.14 |
| | Total | 506 | 389 | 299 | 76.86% |

Table 4.1 shows that assistant lecturers returned 118 out of 141 (83.68%) questionnaires that were sent out. Among the lecturers, 109 out of the 163 questionnaires were returned; a response rate of 66.87% for that stratum. In the senior lecturers stratum 45 out of 51 questionnaires were returned. This represented an 88.23% response rate. Among the professors, 35 questionnaires were sent out and 27 of them were returned. This represented a 77.14% response rate. In the social sciences, a response rate of between 30% and 70% is considered adequate (Ali et al., 2021). It was also evident that each strata had a response rate that fell within the acceptable range for social sciences. The overall response rate for the whole study was 76.86% which was adequate for analysis to proceed. The sample was adequately representative of the target population and study findings were therefore generalizable to the target population.

## 4.1 Gender Distribution of Respondents

This study also sought to find out whether males and females were fairly represented during data collection. This was in view of the fact that there was already the two-thirds gender rule and there could have been issues in the study that were gender sensitive. Additionally a caution was provided by Engle (2012) to the effect that unequal proportion of male and female respondents in a study can compromise generalizability of the findings to the target population and may lead to biased implications. As observed in

figure 4.1, the 299 respondents comprised 58.19% (174) males and 41.81% (125) females. It was clear that each gender was adequately represented and was in deed within the two-thirds gender rule.
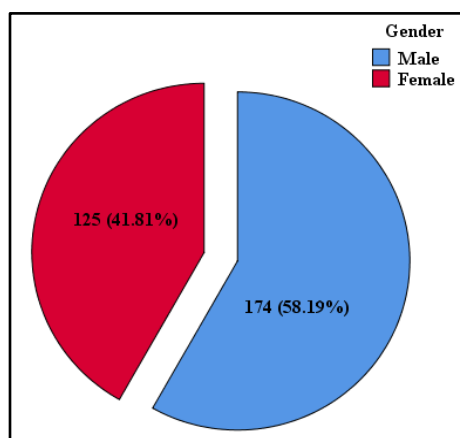


*Figure 4.1 Pie Chart on Gender Distribution of the Respondents*

## 4.2 Discipline Distribution of Respondents

The data was also analyzed for fair participation of the two broad disciplines in the study. The two broad disciplines were STEM (Sciences, Technology, Engineering and Mathematics) and, the humanities and social sciences. It was anticipated that role stress experienced may have been different for academic staff across the two broad disciplines. This was because earlier studies had hinted that stress may vary with disciplines (Smith et al. 1995). The results of that analysis were as presented in table 4.2.

*Table 4.2 Discipline Distribution of Respondents*

| SN | Discipline | Freq. | % age |
|----|-----------|-------|-------|
| 1. | STEM (Science, Technology, Engineering and Mathematics) | 134 | 44.8 |
| 2. | Humanities and Social Sciences | 165 | 55.2 |
| | Total | 299 | 100 |

As depicted in table 4.2, STEM (Science, Technology, Engineering and Mathematics) had 44.8% (134) and Humanities and Social Sciences had 55.2% (165) of all the respondents. The two percentages were comparable and thus the findings of this study could be generalized to both disciplines.

## 4.3 Data on the Independent and the Dependent Variables

The primary data collected on independent and the dependent variables was compiled and summarized as discussed hereafter.

*Table 4.3 Responses to Various Role Stressors*

| Role Stressor statement on a scale of 1 to 5 where 1=strongly disagree (SD) and 5= Strongly agree (SA) | Freq. and % age | SD 1 | D 2 | U 3 | A 4 | SA 5 | Total |
|---|---|---|---|---|---|---|---|
| I have some roles that are mutually exclusive and this stresses me out. (Role conflict) | Freq. | 5 | 20 | 52 | 112 | 110 | 299 |
| | % | 1.7 | 6.7 | 17.4 | 37.5 | 36.8 | 100 |
| I feel stressed out since I don't fully know what is expected in some of my roles in the organization. (Role ambiguity) | Freq. | 2 | 13 | 51 | 98 | 135 | 299 |
| | % | 0.7 | 4.3 | 17.1 | 32.8 | 45.2 | 100 |
| I am stressed out because I cannot satisfactorily perform my many roles in the organization in time. (Quantitative role overload) | Freq. | 10 | 39 | 85 | 140 | 25 | 299 |
| | % | 3.3 | 13.0 | 28.4 | 46.8 | 8.4 | 100 |
| I feel stressed out because my roles in the organization have many tasks that are difficult to complete in time. (Qualitative role overload) | Freq. | 1 | 15 | 38 | 111 | 134 | 299 |
| | % | 0.3 | 5.0 | 12.7 | 37.1 | 44.8 | 100 |

Table 4.3 presents a summary of the responses to the various questions (parameters) used to measure role stress. It consists of the the number of times a particular response to a question appeared and the corresponding percentage out of the total number of 299 questionnaires which were returned. The statement 'I have some roles that are mutually exclusive and this stresses me out' was used to measure role conflict. Out of all the respondents, 1.7% strongly disagreed, 6.7% disagreed 17.4% were neutral, 37.5% agreed and 35.8% strongly agreed. The statement 'I feel stressed out since I don't fully know what is expected in some of my roles in the organization' was meant to quantify role ambiguity. Out of the 299 respondents, 0.7% strongly disagreed, 4.3% disagreed 17.1% were neutral, 32.8% agreed and 45.2% strongly agreed. The statement 'I am stressed out because I cannot satisfactorily perform my many roles in the organization in time' was used to measure quantitative role overload. Out of the 299 respondents, 3.3% strongly disagreed, 13.0% disagreed 28.4% were neutral, 46.8% agreed and 8.4% strongly agreed. Lastly, the statement 'I feel stressed out because my roles in the organization have many tasks that are difficult to complete in time' was used measure qualitative role overload. Out of all the 299 respondents, 0.3% strongly disagreed, 5.0% disagreed 12.7% were neutral, 37.1% agreed and 44.8% strongly agreed.

From the responses in table 4.3, values of role stressors were computed through averaging of the respondents scores in the parameters as captured in the operational framework. The scores were then plotted on a histogram and presented in figure 4.2.
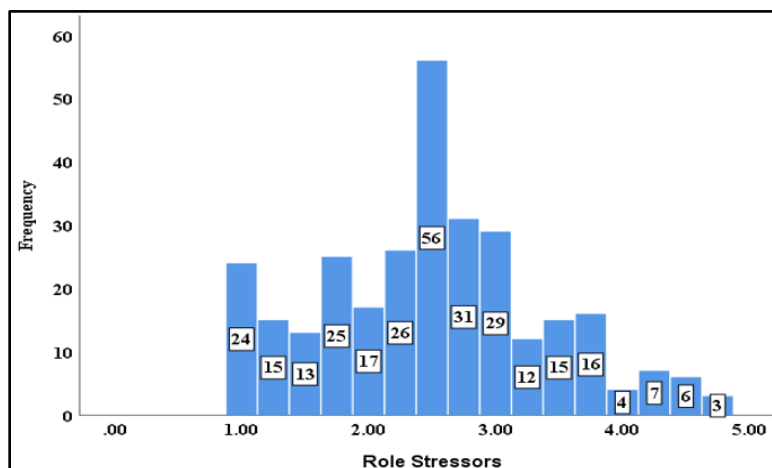


*Figure 4.2 Histogram for Role Stressors*

From figure 4.2, the minimum value assumed by the variable role stressors was 1.00 with a frequency of 24 while the maximum value was 4.75 with a frequency of 3. The mode was at 2.50 with a frequency of 56 out of the 299 questionnaires that were returned. Other values of the variable were as presented in the histogram. It was necessary to get the general picture of the data on role stressors and for that reason various descriptive statistics were computed and were as summarized in table 4.4.

*Table 4.4 Descriptive Statistics for Role Stressors*

| Mean | Standard Deviation | First quartile | Third quartile | Interquartile range |
|------|-------------------|----------------|----------------|---------------------|
| 2.506 | 0.890 | 1.750 | 3.000 | 1.250 |

From table 4.4, role stressors had a mean of 2.506 and a standard deviation of 0.890. The first quartile was at 1.75 while the third quartile was at 3.00 and therefore the interquartile range was 1.250. This means that the scores of the middle 50% of the respondents were ranging from 1.75 to 3.00. The interquartile range value of 1.250 was relatively small and therefore it could be argued that there was agreement on the constructs being studied among the respondents. These construct were role ambiguity, role conflict, quantitative role overload and qualitative role overload. The target population could therefore be seen to be homogeneous. Similarly, to obtain values of the dependent variable, this study first computed the various values of the parameters of job performance as outlined in data analysis and presentation. The values of the parameters were then averaged to obtain scores for job performance upon which many data points appeared due to the numerous operations done on the parameters. Therefore job performance data was grouped and presented in table 4.5.

*Table 4.5 Grouped Job Performance Scores and their Frequencies*

| | | Frequency (Unit) | Percent (%) | Valid Percent (%) | Cum. Percent (%) |
|---|---|---|---|---|---|
| **Job performance** | | | | | |
| Valid | 1.51 - 2.50 | 20 | 6.7 | 6.7 | 6.7 |
| | 2.51 - 3.50 | 125 | 41.8 | 41.8 | 48.5 |
| | 3.51 - 4.50 | 149 | 49.8 | 49.8 | 98.3 |
| | 4.51 - 5.50 | 5 | 1.7 | 1.7 | 100.0 |
| | Total | 299 | 100.0 | 100.0 | |

From table 4.5, it could be seen that job performance scores for the respondents ranged from 1.51 to 5.50 after grouping the data, with group .50-1.50 entirely missing. This implied that all respondents were conscious of their job requirements and were performing their jobs. The group 1.51-2.50 had a frequency of 20 (6.7%), group 2.51-3.50 had a frequency of 125 (41.8%), group 3.51-4.50 had a frequency of 149 (49.8%) and lastly the group 4.51 - 5.50 had a frequency of 5 (1.7%). It was clear that all the scores were close to one another which implied that the target population. Since this study wished to get a general view of the independent variable, various key descriptive statistics were computed and were as presented in table 4.6.

*Table 4.6 Descriptive Statistics for Job Performance*

| Mean | Standard Deviation | First quartile | Third quartile | Interquartile range |
|------|-------------------|----------------|----------------|---------------------|
| 3.480 | 0.547 | 3.167 | 3.833 | 0.666 |

From table 4.6, job performance had a mean of 3.480 and a standard deviation of .547. The first quartile was at 3.167 while the third one was at 3.833 and therefore the interquartile range was .666. It can be seen that job performance was concentrated around the mean with 50% being between 3.167 and 3.833. This implies that job performance was comparable across all the respondents which further implies that the target population was relatively homogeneous. Therefore, the findings and recommendations of this study can be generalized to the academic staff of public universities in Kenya, which was the target population of this study.

## 4.3 Diagnostic Analysis

The data was tested for fulfillment of linear regression assumptions which are normality of the dependent variable, linearity of relationship between the independent variable and the dependent variable, multicollinearity and homoscedasticity (Osborne & Waters, 2002). Test of normality of the dependent variable was done by plotting a histogram over which a normal curve was drawn (see figure 2). As can be seen, the normal curve enveloped all the bars to a good approximation and therefore the normality assumption was fulfilled.
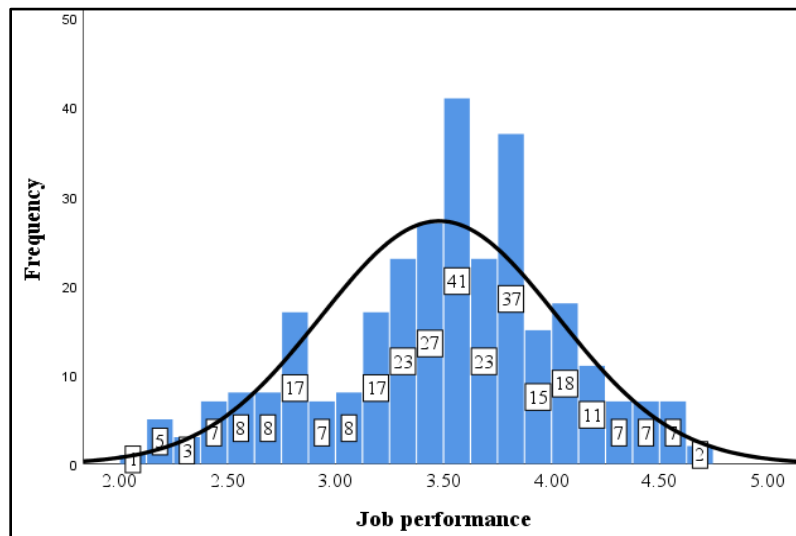


*Figure 4.3 Histogram of Job Performance with a Normal Curve*

Linearity of relationship between the role stressors and job performance was tested through computing the Pearson correlation coefficient (r) between the independent variable and the dependent variable, which was -.746 with a p-value .000<.05. There was therefore a statistically significant linear relationship between role stressors and job performance. Multicollinearity assumption was tested by use of the variance inflation factor (VIF) which was found to be 3.387< 5.00 and which according to Shrestha (2020) was acceptable. The homoscedasticity assumption was tested by use of the Breusch-Pagan-Godfrey test in which, a p-value of the regression model between the residuals-squared and the independent variable is used (Garson, 2012). In applying the test, a p-value>.05 implies absence of heteroscedasticity which is a signal that the data is homoscedastic and inferences can therefore be made in line with other statistics. The test was done after linear regression analysis.

## 4.4 Linear Regression Analysis

Linear regression analysis was carried out so as to establish the influence of role stressors on job performance as per the research objectives and to test the research hypothesis. The outcomes of that process was as presented in tables 4.5, 4.6 and 4.7.

*Table 4.5 ANOVA for Regression Model*

**ANOVAᵃ**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 49.722 | 1 | 49.722 | 373.723 | .000ᵇ |
| | Residual | 39.515 | 297 | .133 | | |
| | Total | 89.237 | 298 | | | |

a. Dependent Variable: Job performance

b. Predictors: (Constant), Role stressors

From table 4.5, the simple linear regression model of role stressors and job performance (F (1, 297) = 373.723, p-value=.000<.05) was statistically significant. This meant the results of the relationship as inferred from the data could not have been a chance occurrence but were a true representation of the relationship between role stressors and job performance. The null hypothesis for the influence of role stressors on job performance of academic staff of public universities in Kenya was therefore rejected.

*Table 4.6 Model Summary*

**Model Summaryᵇ**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .746ᵃ | .557 | .556 | .36475 | 1.460 |

a. Predictors: (Constant), Role stressors

b. Dependent Variable: Job performance

From table 4.6, the regression model had a coefficient of determination ($R^2$) whose value was .557. This value of coefficient of determination indicates that role stressors accounted for 55.7% of the variation in job performance in the target population. The remaining percentage (44.3%) could be accounted for by other factors that influence job performance of academic staff of public universities in Kenya.

*Table 4.7 Regression Coefficients*

**Coefficients[a]**

| Model | | B | Std. Error | Beta | t | Sig. |
|---|---|---|---|---|---|---|
| | | Unstandardized Coefficients | | Standardized Coefficients | | |
| 1 | (Constant) | 4.631 | .063 | | 73.344 | .000 |
| | Role stressors | -.459 | .024 | -.746 | -19.332 | .000 |

a. Dependent Variable: Job performance

The data on roles stress and corresponding values of job performance was analyzed and a line of best fit could be drawn with the characteristics indicated in table 4.7. A line of best fit is the one that minimizes the errors of prediction that would arise from the model (Salkind, 2013). The line of best fit has two properties that are key to making inferences in regression analysis. These properties are y- intercept ($\beta_0$) as well as the gradient ($\beta_1$). The line is unique for a particular data set. From table 4.7, $\beta_0$= 4.631, $\beta_1$ = -.459 with a p-value= .000< .05. But before inferences could be made from linear regression analysis, it was necessary to test the data on role stressors for fulfillment of the homoscedasticity assumption.

*Table 4.8 Homoscedasticity Test Results*

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .205 | 1 | .205 | 3.593 | .059[b] |
| | Residual | 16.914 | 297 | .057 | | |
| | Total | 17.119 | 298 | | | |

a. Dependent Variable: Residuals-squared
b. Predictors: (Constant), Role stressors

From table 4.8, the p-value for the presence of heteroscedasticity under null hypothesis was .059>.05. The null hypothesis was therefore rejected and the data was confirmed to be homoscedastic. This meant that there was constant variance of the residuals in the regression model which was necessary in avoiding biased and skewed regression results. Therefore linear regression analysis that was carried out on the role stressors data vis-à-vis job performance could be used to make inferences about the target population. Hence the regression equation for role stressors and job performance became;

$$Y= 4.631-.459X_1 + \varepsilon$$

From the regression equation, it can be seen that there was a job performance level of 4.631 that was independent of role stressors. Additionally, $\beta_1$= -.459 which meant that a unit rise in role stressors would lead to a .459 decrease in job performance. This finding was consistent with that of Mustafa et al. (2015), who argued that all employees are affected by occupational stress, but a particular person's position in the organization influences the level of anxiety and stress, and by extension, the job performance. This finding was also consistent with Akgunduz (2015) who found that the roles performed by an employee may lead to an employee getting stressed out and thereby affect their job performance. In further concurrence, the study carried out by Nor and Huda (2016) on the academic staff of one university in Malaysia found out that numerous roles which did not fit the time provided resulted in higher risk of stress and therefore affected job performance. They added that employees with enormous responsibilities also tend to spend more hours in their jobs which results in high risk of stress and eventual burnout.

The findings by Kitole et al. (2019) allude to an agreement in their conclusion that role ambiguity, overload and conflict had a negative and significant correlations with job performance. The findings are however in contradiction with the position held by Liaw et al. (2019), who argue that role stressors do not have any statistically significant effect on job performance in a study that they carried out on security personnel. Additionally, Ismail et al. (2022) alluded to a contradictory finding when they concluded that work overload had a positive relationship with job performance. The findings of this study were consistent with the Person-Environment Fit theory. This theory posits that lack of fit between an employee and the role that they are assigned to perform in an organization leads to poor employee performance outcomes. This study recommends that university managers be proactive in reducing role stressors for enhanced academic staff job performance. This may be done through assigning roles that are clearly defined thereby reducing role conflict and having roles that are optimally loaded, qualitatively and quantitatively. Employee assistance programmes should also be implemented to help the academic staff deal with stress arising out of the roles that they have been assigned.

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