Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

# The Effect of Workforce Diversity on Employees Job Performance in Case of Woldia University

**Chekole Wubneh Negassi**

askalbeyene23@gmail.com

Raya university https://orcid.org/0009-0006-8837-9001

**Research Article**

**Keywords:** age diversity, experience diversity, education diversity, ethnic diversity, gender diversity, employee's performance

**Posted Date:** July 21st, 2026

**DOI:** https://doi.org/10.21203/rs.3.rs-10394079/v1

**License:** This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

**Additional Declarations:** The authors declare no competing interests.

# THE EFFECT OF WORKFORCE DIVERSITY ON EMPLOYEES JOB PERFORMANCE IN CASE OF WOLDIA UNIVERSITY

**Chekole Negassi**

## Abstract

The purpose of this study is to examine the effect of workforce diversity on employee's job performance in higher education institutions in case of Woldia University. The researcher identified five independent variables (i.e. age diversity, gender diversity, education diversity, ethnic diversity and experience diversity). To deal with the issue, explanatory research design was employed. 271 active academic stuffs were selected through using Yemane formula. Proportional sampling technique was employed for choosing representative respondents from eight faculties of the university. For collecting data the researcher used questionnaire. The data was processed by SPSS VERSION 20 software. More ever, multiple linear regression model was applied for explaining dependent variable by independent variables. The researcher finds as ethnic diversity and experience diversity have a negative impact on employee's performance and as age diversity, gender diversity and education diversity have increasing effect on employee's performance. Finally, recommendations were forwarded to the manager and future researchers.

**Key words: age diversity, experience diversity, education diversity, ethnic diversity, gender diversity, employee's performance**

# 1. Introduction

Organization is a composition of people working together to achieve a common goal with resources. Human resource is the most important resource of organization Hapompwe et al. (2020) that cannot be easily copied by competitors. Those peoples who are in organizations are compiled with different skills, knowledge's, experiences, attitudes, opinions, and biological differences. Richa and Phil (2013) reveal the advent of globalization and competition makes the workforce of organizations heterogeneous. Work force diversity is Abdallah et al. (2016) the similarities and dissimilarities in terms of age, gender, educational level. These who created organization certainly have different personality attitude, origin, color race etc. There is diversity in all organization whether the business is governmental, nongovernmental or civil organizations (Collins, 2015). Carrell (2006) articulates workforce diversity as a difference in workforce such as age, gender, race, education, religion, and culture. Workforce diversity Collins (2015) has a significant effect on employee's performance. Diana et al. (2021) work force diversity is similarity or difference with in the workforce of organizations in terms of different diversity parameters (i.e., gender, education, age, culture, disability, race, religion etc). Majid and Ahmad (2018) defined Workforce diversity is a collection of peoples from different backgrounds working in the same organization. Li et al. (2020) on their article entitled the impact of workforce diversity management on employee's outcomes: testing the mediating role of jobs match, they recognized workforce diversity management could be studies on two perspectives. The American perspective(surface level) incorporating the variables of gender, age, educational background, and marital status….and Chinese perspective (deep level) includes variables such as skill, employee's preference, knowledge and interests of the employee. This study is based on American perspective. Ethiopia is a country of diversity of cultures, languages, and ethnic backgrounds, religious affiliations. The peoples are Durga (2015) from multiple ethnic origins, multiple languages, cultures, race and colors. And they are known by their warm greeting, hand shaking, and smile facial expressions to express their happiness and sadness. Among different public and private sector organizations university is a home of different people who come from different parts of the country with different languages, cultures and ethnic origins. Consequently, one university of Ethiopia is a small representative of Ethiopia. Work force diversity Majid and

Ahmad (2018) have both challenges and opportunities. Unlike the opportunities the challenges was highly manifested in Ethiopia. Currently ethnic workforce diversity is affecting Ethiopia in general and higher educations in particular. Employees are leaving their job because of the harmful words, insults, intimidations and fearing of their lives that emanates because of their ethnic background. This makes great sense of studying the effect of work force diversity on employee performance in such type of heterogeneously composed organization. Different studies have been studied on the issue across the globe (in India, Pakistan, Nigeria, China and Kenya) the most diversified countries. But, in Ethiopia as per the researcher search studies are not undertaken. Hence, the researcher tried to see the effect of workforce diversity on employees' performance by considering geographical gap.

## 2. Related Literature Review

### The effect of Workforce Diversity on employee's performance

Abdallah et.al (2016) concluded work force diversity does not have effect on employee's performance. Qasim (2017) has conducted similarly on the issue and found workforce diversity has a positive contribution to employee's performance. Adoption of work force diversity management Kipsang and Kagwe (2022) enhance the performance of employees of Kenyan nongovernmental organizations. Lucas et.al (2020) recommends organizations should make diversified their work force composition for bringing organizational productivity. Workforce diversity has Sohail et.al (2019) significant effect to employee's job performance.

#### Dimensions of Workforce Diversity and their Effect to Employees Performance

**Age Diversity and Employees Performance -** Age diversity Diana et al. (2021) does not have significant effect on employee's job security. As per Kipsang and Kagwe (2022) finding age diversity highly influences employee performance. Shrestha and Parajuli (2021); Hapompwe et.al (2020) age diversity boosts employees performance. Rizwan et al. (2016) age diversity highly influences employee's job performance. As per Rizwan et al. (2016) adopting employees with different age diversity boosts employee's performance.

**Ethnic Diversity and Employees Performance -** Yvonne and Rosemarie (2021); Lucas et.al (2020) concluded that ethnic diversity positively affects employee's job performance. Muvinya and Willy

(2020) ethnic diversity plays a significant role to employees job performance. Employing employees Rizwan et al. (2016) from different ethnic background improves employee's performance.

**Gender Diversity and Employees Performance** Diana et al. (2021); Yvonne and Rosemarie (2021); Hapompwe et.al (2020) there is a significant effect of gender on employee's job performance. Shrestha and Parajuli (2021) confirm that gender diversity increases employee's performance. Rizwan et al. (2016) argues that assigning jobs to both genders increases employee's performance.

**Educational Diversity and Employees Performance -**Muvinya and Willy (2020); Lucas et.al (2020) conducted a study on the research problem in Kenyan selected universities and avers educational background diversity exerts a positive effect on the performance of employees. Educational diversity has no effect on employee's performance Diana et al. (2021). Yvonne and Rosemarie (2021) found that educational diversity affects employee's performance. Diversifying employees Rizwan et al. (2016) based on educational profile is influential to increase the performance of employees.

**Work experience Diversity and Employees Performance -**Experience diversity does not affect employee's performance Diana et al. (2021). Experience is Rizwan et al. (2016) all round education that is important for acquiring practical lessons of doing a job. Consequently, work experience diversity increases employee's performance.

Based on the literature review the researcher developed the following hypothesis

HO1: Age diversity does not have significant effect on employee's job performance

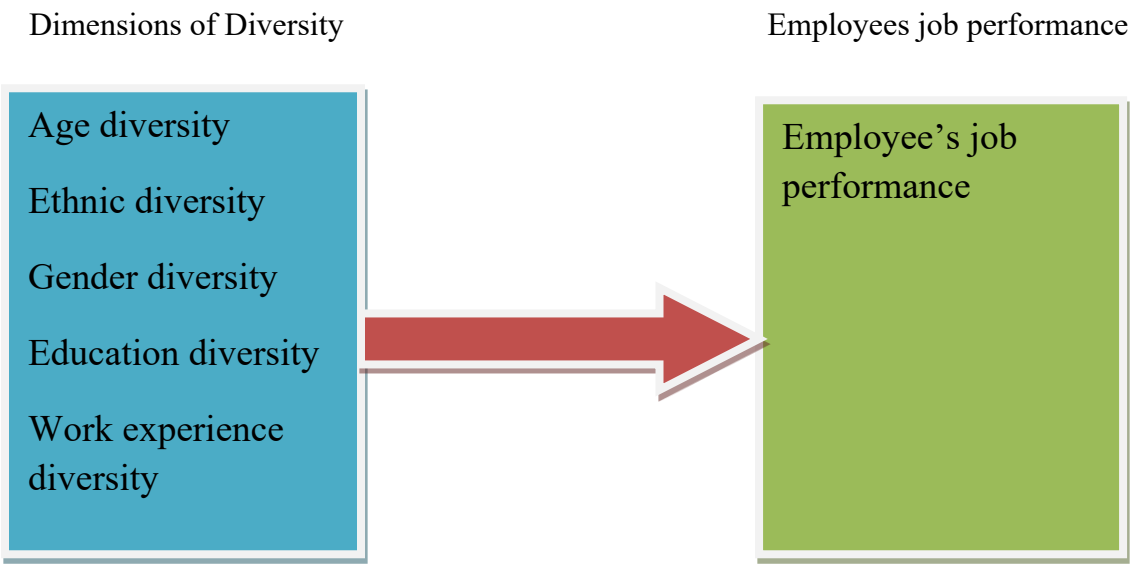
HO2: Ethnic diversity does not have significant effect on employee's job performance

HO3: Gender diversity does not have significant effect on employee's job performance

HO4: Academic rank diversity does not have significant effect on employee's job performance

HO5: Work experience does not have significant effect on employee's job security

**Conceptual framework of the study**




Source: From literature survey 2023

## 3. Research Methodology

Research design Kumar, (2011) is a procedural plan that helps to answer questions validly and objectively. The study employed explanatory research and descriptive research design, to describe the workforce diversity of employees and to investigate the cause and effect relationship of workforce diversity and employees performance. The study by its nature is quantitative, since it has been used a qualitative data.I have used probability sample design in order to give equal chance for all respondents of the study. To determine the sample size the study use Yamane formula. The total populations of the study are 838 active academic stuff of woldia university main campus. To determine the size of the sample, the researcher has used Yemane formula of sample size determination.

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{838}{1+838(0.05)^2}$$

$n =$ 271 active academic stuffs

In the main campus of the university there are 8 faculties. To know the number of samples to be drawn from those faculties the study employed proportional stratified sampling.

Table 3.1: Proportional Stratified sampling of the respondents

| No | Name of faculties | Number of stuffs | Stratification | Stratified sample size |
|---|---|---|---|---|
| 1 | Technology | 302 | (302/838)*271 | 98 |
| 2 | Natural and computational science | 153 | (153/838)*271 | 49 |
| 3 | Health | 134 | (134/838)*271 | 43 |
| 4 | Business and Economics | 62 | (62/838)*271 | 20 |
| 5 | Social and Humanity | 116 | (116/838)*271 | 37 |
| 6 | Educational and Behavioral science | 45 | (45/838)*271 | 15 |
| 7 | Land | 18 | (18/838)*271 | 6 |
| 8 | Law | 8 | 8/838*100*271 | 3 |
| Total | | 838 | | 271 |

**Source:** Woldia University Human resource directorate office 2023

The study used both first hand and second hand data to be processed to achieve the objective of the study. The researcher used questionnaire to collect the necessary data. To obtain data the researcher used questionarorie. The questionnaire was likert-scale type that was partially adopted from Kipsang and Kagwe (2022); Muange and Willy Kiptoo (2020). Questionnaire Kothari (2004) defined questionnaire consists of a number of questions printed or typed in a definite order on a form or set of forms. is appropriate for large number of respondents.

**Model Selection and Data Processing** The study used multiple linear programming models to quantify the variables. This model is fitted to the study, since the employee job performance can

be expressed quantitatively through developing likert scales typed questionnaires. After the data are matched with the selected model the data was processed through SPSS soft ware.

## 4. Result and Discussion

To examine the effect of work force diversity on employee's performance 271 questionnaires were distributed to academic stuffs of Woldia University. Among the distributed respondents 258 of them were returned and filled effectively with return rate of 95.2%.

**Demographic Characteristics of the respondents**

**Table 4.1: Gender of respondents**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Male | 183 | 70.9 | 70.9 | 70.9 |
| | female | 75 | 29.1 | 29.1 | 100.0 |
| | Total | 258 | 100.0 | 100.0 | |

Source: SPSS result, 2023

As per table 4.1 majority of the respondents183 (70.9%) were male. And the remaining 75 (29.1%) of them were female. Hence, Woldia University is mainly composed of male workers.

**Table 4.2: Age of respondents**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 20-30 | 117 | 45.3 | 45.3 | 45.3 |
| | 31-40 | 92 | 35.7 | 35.7 | 81.0 |
| | 41-50 | 31 | 12.0 | 12.0 | 93.0 |
| | 51-60 | 18 | 7.0 | 7.0 | 100.0 |
| | Total | 258 | 100.0 | 100.0 | |

Source: SPSS result, 2023

As indicated in the above table 4.2, 117(45.3%) of the respondents are in the age interval of 20-30. And 92(35.7%), 31(12%) and 18(7%) of the respondents are in the age interval of 31-40, 41-50 and 51-60 respectively. Therefore, one can conclude the academic staffs of Woldia University are in the very productive age group.

**Table 4.3: Level of education**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Bachelors Degree | 66 | 25.6 | 25.6 | 25.6 |
| | Masters degree | 181 | 70.2 | 70.2 | 95.7 |
| | Phd | 11 | 4.3 | 4.3 | 100.0 |
| | Total | 258 | 100.0 | 100.0 | |

Source: SPSS result, 2023

Regarding the level of education, as per table 4.3, 181(70.2%) of the employees are masters degree holders. The remaining 66(25.6%) and 11(4.3%) of the respondents are Bachelors degree and PhD holders respectively.

**Table 4.4: Experience of respondents**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1-5 years | 131 | 50.8 | 50.8 | 50.8 |
| | 6-10 years | 86 | 33.3 | 33.3 | 84.1 |
| | 11-20 | 13 | 5.0 | 5.0 | 89.1 |
| | 21-30 year | 28 | 10.9 | 10.9 | 100.0 |
| | Total | 258 | 100.0 | 100.0 | |

Source: SPSS result, 2023

As per table 4.4, the majority 131(50.8%) of the respondents were worked below 5 years. And 86 (33.3%) of them have 6-10 years work experience. The remaining 13(10.9%) and 28(10.9%) of

the respondents have worked 11-20 and 21-30 years respectively. Therefore, majority of the respondents are new entrants to the organization. This might be related with the age of the organization.

**Table 4.5: Martial status of respondents**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Single | 177 | 68.6 | 68.6 | 68.6 |
| | Married | 81 | 31.4 | 31.4 | 100.0 |
| | Total | 258 | 100.0 | 100.0 | |

Source: SPSS result, 2023

As shown in the above table 4.5, 177(68.6%) of the respondents are single and 81(31.4%) of the respondents are married. This indicates most of the academic stuffs of the university are not stable.

**Table 4.6: Ethinic orgin of employees**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1. Amhara | 182 | 70.5 | 70.5 | 70.5 |
| | 2.Oromia | 41 | 15.9 | 15.9 | 86.4 |
| | 3.Tigray | 19 | 7.4 | 7.4 | 93.8 |
| | 4.Afar | 2 | .8 | .8 | 94.6 |
| | 5.Gumuz | 2 | .8 | .8 | 95.3 |
| | 6.Sidama | 2 | .8 | .8 | 96.1 |
| | 7.SNNP | 6 | 2.3 | 2.3 | 98.4 |
| | 8.Somalia | 2 | .8 | .8 | 99.2 |
| | 10. Harar | 2 | .8 | .8 | 100.0 |
| | Total | 258 | 100.0 | 100.0 | |

Source: SPSS result, 2023

As indicted in table 4.6, most of respondents 182(70.5%) are ethnically Amhara. Next to Amhara 41(15.9%) are from Oromia. The remaining are from other ethnic origins of Ethiopia. This implies the university is highly composed by one ethnic group.

**Table 4.7: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .528[a] | .278 | .264 | .44029 |

a. Predictors: (Constant), ETD, ED, AD, GD, EDU

Source: SPSS result, 2023

As table 4.7 illustrates the R square for the regression model is 27.8%. This implies only 27.8% of the response variable is explained by the independent variables identified by the researcher. The remaining 72.2% could be explained by other variables that are not included in this study.

**Table 4.8: ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 18.842 | 5 | 3.768 | 19.440 | .000[b] |
| | Residual | 48.852 | 252 | .194 | | |
| | Total | 67.694 | 257 | | | |

The ANOVA table helps to assess the fitness of the model for explaining response variable by predictor variable. Since the model is significant at $p<0.5$ using regression model, one can say the model fits for explaining the dependent variable.

**Table 4.9 Coefficients**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .908 | .338 | | 2.689 | .008 |
| | ED | -.008 | .047 | -.009 | -.161 | .872 |
| | EDU | .185 | .047 | .229 | 3.913 | .000 |
| | GD | .303 | .048 | .349 | 6.365 | .000 |
| | AD | .314 | .061 | .280 | 5.150 | .000 |
| | ETD | -.107 | .059 | -.106 | -1.800 | .073 |

Source: SPSS result, 2023

As per table 4.9, a one unit increase in experience diversity makes employees performance to reduce by 0.008 units. Similarly a one unit increase in ethnic diversity leads a 0.107 unit decrease in employee's performance. On contrary, a one unit increase in educational diversity, gender diversity and age diversity increase employee's performance by 0.185, 0.303 and 0.314 respectively. To sum up, experience diversity and ethnic diversity have a decreasing effect and age diversity, educational diversity and gender diversity have an increasing effect on employee's performance.

**Hypothesis Testing**

**Ho1:** Age diversity does not have significant effect on employee's job performance. As indicated in table 4.9, age diversity is significant at $P<0.05$. Therefore the first null hypothesis is rejected. **HO2:** Ethnic diversity does not have significant effect on employee's job performance. The P value of ethnic diversity is 0.073. Hence, ethnic diversity is not significant at $P <0.05$. Thus, the second null hypothesis is accepted. **HO3:** Gender diversity does not have significant effect on employee's job performance. Gender diversity is significant at $P< 0.05$. Similarly, the null the third null hypothesis is rejected. **HO4:** Education diversity does not have significant effect on employee's job performance. Education diversity is significant at $P< 0.05$.

The forth hypothesis also rejected. **HO5:** Work experience does not have significant effect on employee's job security. Experience diversity is not significant at $P<0.05$. Hence, the null hypothesis is accepted.

## 5. Conclusion and Recommendation

### Conclusion

Ethnic diversity and experience diversity have negative effect to employee's performance. However, age diversity, gender diversity and education diversity have increasing or positive effect to employee's performance.

### Recommendation

When workforce of organizations are composed of different ethnic groups, educational ranks, age differences, gender differences and experience differences the organization will find different skills, attitudes, knowledge's opinions and different methods of work. These diversities should be managed for organizational performance and creativity. Particularly, ethnic diversity in Ethiopia at large and universities in particular is becoming difficult. Most of Ethiopian universities including Woldia University are facing difficulties in managing ethnic diversity because of Ethiopian civil war.

**Managerial Implication**- Managers of nowadays, should accept the existence of diversity in every organization and they should manage accordingly for increasing the productivity employees.

**Areas for future research**- Work force diversity management are a new concept of management that needs extensive research. Workforce diversity could be intrinsic and extrinsic. Intrinsic diversities are differences that we cannot easily observe them. But, extrinsic diversities are differences that we can easily observe them. This research mainly emphasizes extrinsic diversities. Therefore, authors and researchers could investigate in detail intrinsic diversities.

**Declaration**

**Availability of Data and Materials -** All necessary data that are used for interpretation of the findings are in the hand of the author. If it is necessary, even the data set is expected to be private; I would submit if I got a request from the journal.

**Competing interests-** The author declares there is no any competing interest concerning the study. The study is done by the author only.

**Funding-** To do the study, the author declares that he used his own budget to cover all costs associated with collecting data, analysis, and manuscript writing.

**Authors Contribution** Since there is no any competing interest, the author is the sole contributor to this study. Starting problem identification up to finalizing of the study and manuscript writing are the results of the author.

**Acknowledgement –**Not applicaple

**Author's information**

Chekole Negassi Wubneh, askalbeyene23@gmail.com. Lecturer at Raya University, department of Management, faculity of Business and Economics, Maichew, Ethiopia

## Reference


Abdallah S. Mwatumwa., William Kingi., Hussein Mohamed., Mary Ibua., Karim Omido. (2016). Effect of Workforce Diversity on Employee Work Performance: A Study of the County Government of Mombasa. International Journal of Management and Commerce Innovations. ISSN 2348-7585 (Online) Vol. 3, Issue 2.

Carrel, M. R. (2006). Defining Workforce Diversity Programs and Practices in Organizations: A Longitudinal Study. Labor Law Journal. Spring, 2006. Retrieved from www.emeraldinsight.com.

Chrine, C. Hapompwe, Michael Mulenga, Jaqueline Siwale, Crispin Kukano (2020) .Impact of Age and Gender Diversity on Employee Performance in an Organization - A Case Study of Zambia Compulsory Standards Agency (ZCSA). International Journal of Scientific and Research Publications, Volume 10, ISSN 2250-3153

Diana Fernandez, Raghad Abdullah Al Hinai, Sara Salim Al Mahruqi, Sheikah Mohammed Al Sulaimani, Mithaa Nasser Mohammed Al Shukaili and Hafsa Said Al Khatri (2021). Effect of Work Force Diversity on Employee Performance in a University in Sultanate of Oman. IAR Journal of Business Management. ISSN Print: 2708-5139 | ISSN Online: 2708-5147.

Kipsang, B., Kagwe, J. (2022). Workforce diversity management and employee performance among nongovernmental organizations in Nairobi, Kenya. International Academic Journal of Human Resource and Business Administration, 4(2), 84-99.

Li, W., Wang, X., Jamirul, M.H., Noman, M. and Zahid, M. (2020). Impact of Workforce Diversity Management on Employees' Outcomes: Testing the Mediating Role of a person's Job Match. SAGE Open, Volume1 (16).

Lucas, S.L., Were, W., Namusonge, G. (2020). Workforce Diversity and Employee Performance in the Constitutional Commissions of Kenya. International Journal of Social Sciences and Information Technology, ISSN 2412-0294, Vol V.

Prakash Shrestha and Dilip Parajuli. (2021). Impact of Workforce Diversity on Employee Performance. International Journal of Management (IJM), Volume 12, Issue 2, pp 86-95.

Qasim M (2017) Effect of Workforce Diversity on Employee's Job Performance: The Empirical Assessment of Education Sector, Jalalabad, Afghanistan. Int J Econ Manag Sci 6: 452. doi: 10.4172/2162-6359.1000452

Ranjit Kumar.(2011). *Research Methodology step by step guide for beginners, Third edition* SAGE Publications India Pvt Ltd

Rizwan, M., Nazar, M., Babar, k., Qalb, N., (2016). The Impact of Workforce Diversity towards Employee Performance: Evidence from Banking Sector of Pakistan. American Journal of Marketing Research, Vol. 2, No. 2, 2016, pp. 53-60.

Rosemary Muvinya Muange and Ng'etich Willy Kiptoo. (2020). Effect of Workforce Ethnic Diversity and Education Background diversity on Employee Performance in Selected Universities in Kenya. International Journal of Innovative Science and Research Technology, ISSN No:-2456-2165, Volume 5.

Richa Gupta &M.Phil Scholar.(2013). Workforce Diversity and Organizational performance. International Journal of Business and Management Invention. ISSN (Online): 2319 – 8028, ISSN (Print): 2319 – 801X www.ijbmi.org Volume 2.

R. Durga, P. (2015). The Impact of Workforce Diversity on Organizational Effectiveness: (A Study of Selected Banks in Tigray Region of Ethiopia). International Journal of Science and Research (IJSR). ISSN (Online): 2319-7064.

Ursil Majid Makhdoomi and Fayaz Ahmad Nika (2018).Workforce Diversity and Organizational Performance- A Review. International Journal of Enhanced Research in Management & Computer Applications ISSN: 2319-7471, Volume 7 Issue 3

Yvonne Kerubo Ombegoh and Rosemarie Wanyoike (2021). Workforce Diversity on Employee Performance in Kenya School of Government. .IOSR Journal of Business and Managemen(IOSR-JBM). e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 23, Issue 1.

Sohail.A, Khan. F, Sufyan. M, Uddin. M, Basit.A(2019) The Effect of Workforce Diversity on Employee Performance in Higher Education Sector. Journal of Management (JMI), ISSN:2313-3376 ,*www.readersinsight.net/jmi.*