Exploring the Determinants of Wages: A Comprehensive Analysis Across Sectors and Demographic Factors

1.0. Introduction

Gender pay disparities for equal employment occur in most business organizations, corporation or nations throughout the globe, while the magnitude of such disparities varies greatly between countries and measurement approaches. Wages differences based solely on gender are unjust, and several states and international organizations have advocated laws to reduce or abolish them. (Bennedsen, Larsen and Wei, 2023).

Wage is critical for both workers and the viability of the enterprise. Wages are one kind of compensation in which workers are compensated by their employer for the labour or services performed in order to meet their basic needs (Umar, 2014). According to (Ashraf, 2020), pay (salaries and wages) structure also plays an important mediating function in the relationship on demographic structure.

To compete in a dynamic business environment and retain a competitive edge, every organization should place particular focus on the role of workers as a driver of industrial activity. They are the ones who put in time, thought, and effort. Furthermore, their sentiments, wants, and expectations may have an impact on worker performance, devotion, and loyalty, as well as their love of the job and the sector. To do this, industry should be able to establish circumstances that motivate and allow people to grow and increase their talents and skills optimally, one of which is by providing suitable salary compensation (Umar, 2014).

(Raza and Shoaib Khan, 2019), opined that wages are now being evaluated as the worth of obtaining HR for administration structure and functioning performance, which is identified as

numerous locations where managers carry human resource expense. Many variables and aspects influence work happiness; however, wages or salaries are a critical component if there is compensation discontent. The main purpose of the research is exploring the determinants of wages using a comprehensive analysis across sectors and demographics.

2.0. Literature Review

Wages are the compensation paid to the industry as a worker in exchange for the use of its labour. Every organization, in general, is made up of both physical and intangible factors, such as the environment, vision and purpose, values, goals, strategies, authority, work, people, and other resources. Wage or salary payment to workers is required by law, but not only for the sake of it. It should be mentioned that the pay or salary offered is a motivator or 'driving' for the staff to keep their body and soul together and maybe make them a stakeholder in the organization. It is generally known that when you are a stakeholder in an organization, you will always desire the survival of that company (Eniola Sule, Sarat Iyabo and Banjo, 2015).

Human resource management in general, as well as the issue of motivating this category of resources via compensation and other perks, are constant problems for both specialists and corporate representatives. When the entire difficulty is increased by the economic crisis, the payment issue becomes important in the current economic situation. Employee incentive systems may be utilized to reward the good while penalizing the bad, with the certainty of individual recognition and acclaim from management for professional performance (Demyen and Lala-Popa, 2013).

The Wage and Salary Administration oversees developing and implementing good rules and processes for workers' compensation. Job appraisal, salary and salary research, organizational

issue analysis, construction and maintenance of salary structure, defining rules for managing salaries, salaries, compensation, profit sharing, modifications and salaries, extra payments, compensation expenses, and so on. Salaries and wages may be paid in a number of ways, including goods or services given by employees in lieu of, or in addition to, monetary recompense (Panwar and Agnihotri, 2022).

Wages and cash salaries include salaries paid monthly, monthly, or other periods, including payroll results and employee benefits; and benefits such as overtime; and short-term employee benefits (e.g., vacation); and similar payments; and commissions, grants, and gratuities earned by employees. Wages and other forms include wages that are goods and/or services that are not required in the job and that employees may use in their spare time and opinion to fulfil their own or other family members' wants or requirements (Panwar and Agnihotri, 2022).

2.1. Theory Review

Reinforcement and Expectancy Theory

Thorndike's Law of Effect states that a behaviour that is witnessed with the help of a reward is more likely to be repeated in the future, in accordance with reinforcement theory. By financially rewarding excellent employee overall performance, compensation management seeks to raise the likelihood of future high performance. In the same way, exceptional achievement that goes unnoticed lowers the chance of it happening again. This idea highlights the significance of an individual having a precise grasp of their surroundings (Gerhart, 1995).

Valence, or the anticipated value of results (such as rewards), and expectation, or the perceived value link between effort and success, are two more aspects that impact motivation. The impact of compensation systems on different motivating factors varies. The perceived link between

actions and compensation, often known as "line of sight" in the pay literature, is generally where pay systems diverge the most in terms of how they affect instrumentality. The value of the pay results should not change while using different payment strategies. Expectancy perceptions often impact work design, training, and compensation structures more than compensation structures (Gerhart, 1995).

2.2. Empirical Review

Marzuki, Arifin and Tinggi (2022), researched the impact of pay and incentives on employee performance. The findings revealed that partially paying employees had a significant positive effect on increasing employee performance, partially providing incentives had a significant positive effect on increasing employee performance, and simultaneously paying employees and providing incentives had a significant positive effect on increasing employee performance.

Umar (2014), investigates the impact of wages, job motivation, and job satisfaction on worker performance. The findings of this research reveal that employee performance in manufacturing industries in Makassar Industrial Area has a substantial effect on pay, work motivation, and employee job satisfaction. It also suggests that job satisfaction has a favourable impact on employee work motivation.

3.0. Methodology

The research techniques in this research aims to delve into the intricate web of variables that contribute to wage differentials, with a focus on various sectors and demographic factors. By employing a multiple regression analysis, we seek to unravel the nuanced relationships between wages and key variables such as education, experience, age, gender, ethnicity, region, occupation, sector, marital status, and union membership This study is quantitative approach. The dataset was

gathered based on the sample dataset giving by the supervisor. The dataset contains 517 rows of

data stored in csv file.

4.0. DATA PRESEENTATION, ANALYSIS AND INTERPREETATION

Table 1: SECTOR

Sector	Frequency	Percent
construction	24	4.6
manufacturing	97	18.7
other	397	76.6
Total	518	100.0

Table 1 shows information about the sector of the individuals in the dataset, it was observed that

very few of the individuals comprising of 4.6% are in the "Construction" sector, 18.7% are in

"Manufacturing" sector while the larger part which comprise of 76.6% are in "Other" sector.

Table 2: ETHNICITY

Ethnicity	Frequency	Percent
cauc	428	82.6
hispanic	26	5.0
other	64	12.4
Total	518	100.0

It was observed from table 2 above that the majority of individuals in the dataset are categorized as "Caucasian," comprising 82.6% of the sample. The "Other" category accounts for 12.4% of the sample, while the "Hispanic" category is the smallest, representing 5.0% of the sample.

Table 3: REGION

Region	Frequency	Percent
other	367	70.8
south	151	29.2
Total	518	100.0

It was observed from table 3 above that the majority of individuals in the dataset are categorized as people from "Other" region comprising 70.8% of the sample, while the remaining people are from "South" representing 29.2 % of the sample.
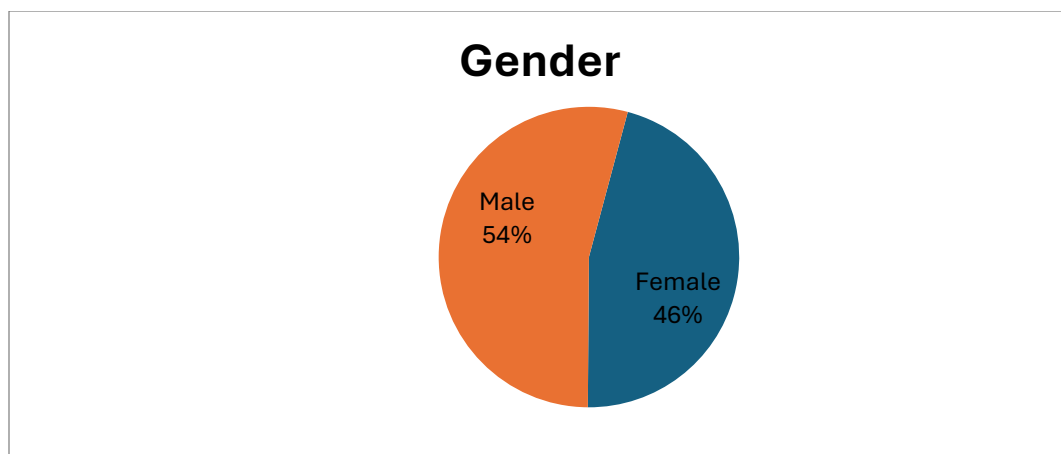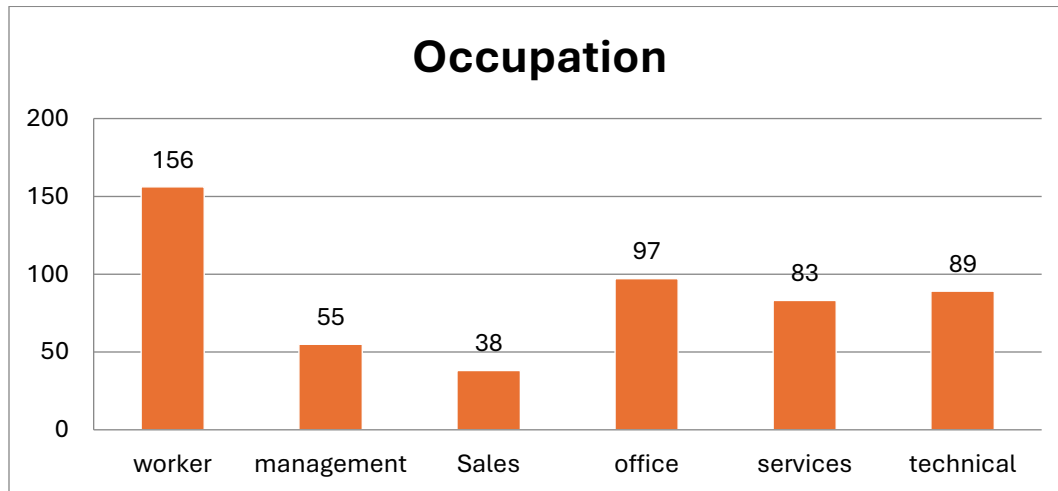
Fig. 1: GENDER

Figure 1 above shows that the majority of individuals in the datasets are "Male" which comprise of 54% of the sample and the remaining are "Female" which represent 46% of the sample.

Fig. 2: OCCUPATION

The figure 2 above depicts information about the occupation of the individuals in the datasets, it was observed that majority of the individuals which 156 of the sample are "Worker", followed by 97 which are "Office", followed by 89 which are "Technical", followed by 83 which are "Services", followed by 55 which are "Management" while the remaining 38 are "Sales".

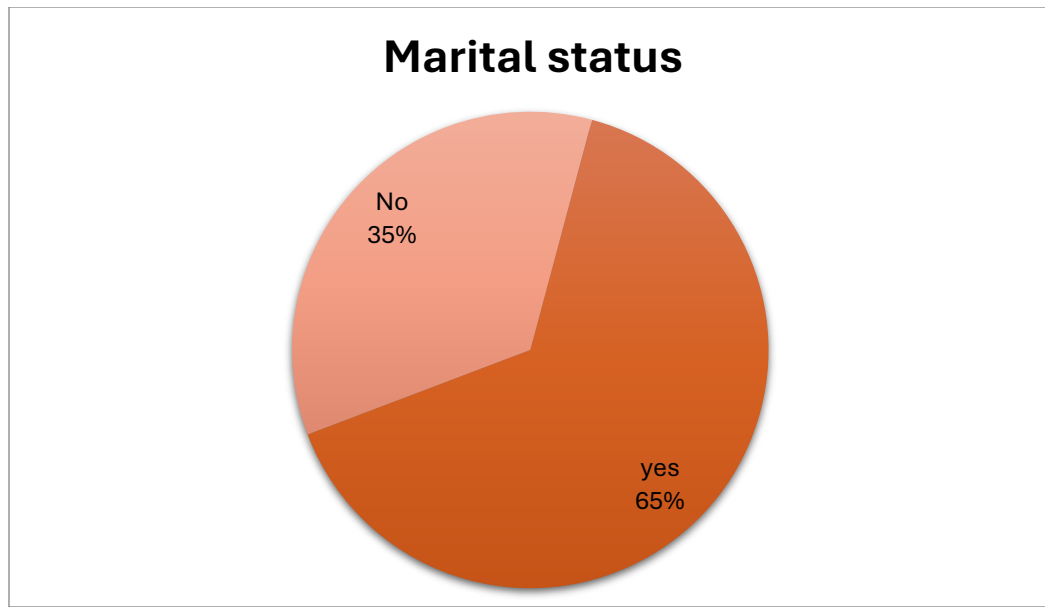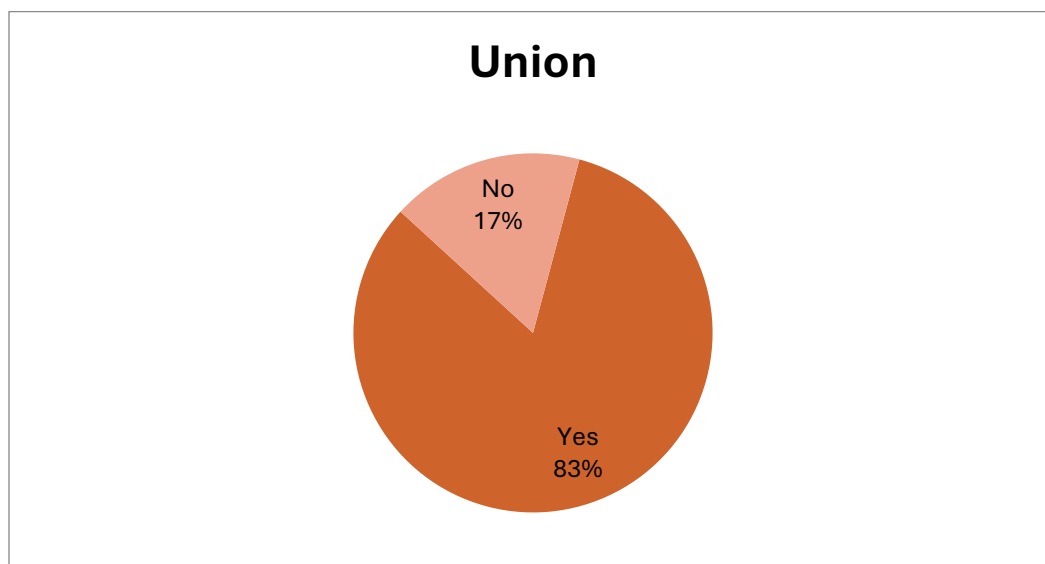**Fig. 3: MARITAL STATUS**

Marital status

Figure 3 above shows that the majority of individuals in the datasets are "Married" which comprise of 65% of the sample and the remaining are "Not married" which represent 35% of the sample.

Fig.4: UNION

Union

The plot above depicts information about the union, it was observed that majority of the individuals which are 83% say "Yes" to the union, while the smaller part of the sample which are 17% say "No" to the union.

Table 4: MODEL SUMMARY

R	R Square	Adjusted R Square	Std. Error of the Estimate	F
0.5465	0.2987	0.2848	4.308	21.59

R represents the multiple correlation coefficient, which is the correlation between the observed values of the dependent variable (wage) and the values predicted by the regression model. The value of R is 0.5465, indicating a moderate positive correlation between the predicted and observed values of the dependent variable.

R Square is the proportion of the variance in the dependent variable (wage) explained by the independent variables in the model. The value of R Square is 0.2987, meaning that approximately 29.87% of the variability in the dependent variable (wage) is explained by the independent variables in the model.

Adjusted R Square is a modified version of R Square that adjusts for the number of predictors in the model. The value of Adjusted R Square is 0.2848, providing a slightly more conservative estimate of the proportion of variance explained after considering the number of predictors.

F-value of the model has been found to be significant at 5% level of significance showing that the model is best fit to use and model is significant in explaining variation in the dependent variable.

Table 5: COEFFICIENT

	Coefficient	Std. Error	T	Sig.
(Constant)	0.9727	6.724	0.145	0.885
Education	1.2571	1.0844	1.159	0.2469
Experience	0.533	1.0847	0.491	0.6233
Age	-0.4422	1.0839	-0.408	0.6835
Gender	1.9849	0.3947	5.029	0
Ethnicity	-0.8605	0.5107	-1.685	0.0926
Region	-0.7212	0.4266	-1.69	0.0916
Occupation	-2.7011	0.6402	-4.219	0
Sector	-0.4248	0.9286	-0.457	0.6475
Married	0.389	0.4156	0.936	0.3497
Union	1.6121	0.5223	3.086	0.0021

Coefficient Interpretation:

1. Constant (Intercept):

The constant term is 0.9727. Given that all other variables are zero, the predicted value of the dependent variable (wage) is 0.9727.

2. Education: For a one-unit increase in education, the predicted wage increases by 1.2571 units, holding other variables constant.

3. Experience: For a one-unit increase in experience, the predicted wage increases by 0.533 units, holding other variables constant.

4. Age: For a one-unit increase in age, the predicted wage decreases by 0.4422 units, holding other variables constant.

5. Gender: Being male is associated with an increase of 1.9849 units in the predicted wage compared to being female, holding other variables constant.

6. Ethnicity: For a one-unit increase in Ethnicity the predicted wage decreases by 0.8605 units, holding other variables constant.

7. Region: Compared to the reference region (presumably a specific region), being in the "Region" category is associated with a decrease of 0.7212 units in the predicted wage, holding other variables constant.

8. Occupation: For a one-unit increase in Occupation predicted wage decreases by 2.7011, holding other variables constant.

9. Sector: Being in the "Sector" category is associated with a decrease of 0.4248 units in the predicted wage, holding other variables constant.

10. Married: Being married is associated with an increase of 0.389 units in the predicted wage compared to not being married, holding other variables constant.

11. Union: Being a union member is associated with an increase of 1.6121 units in the predicted wage compared to not being a union member, holding other variables constant.

5.0. Conclusion

In essence, the regression analysis identifies major variables impacting anticipated earnings in the setting under consideration. In the absence of additional variables, the constant term represents a baseline pay of 0.9727 units. Education and experience have a favourable impact on anticipated

salaries, but age, ethnicity, and location have a negative impact. Gender differences are obvious, with being male being related with a 1.9849 unit increase in projected income. Increases in occupations and sectors are connected to lower anticipated incomes. pay are favourably influenced by marital status, while union membership is related with a 1.6121 unit increase in projected pay. These results provide insights into the complicated processes of pay determination and are critical for guiding policies designed to promote fair and equitable compensation practices.

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