

GENDER AND OCCUPATIONAL CHOICE IN THE NIGERIA LABOUR MARKET: IMPLICATION FOR ECONOMIC AND HUMAN CAPITAL DEVELOPMENT

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Abstract

We examined gender and occupational choice in the Nigeria labour market using cross sectional data. The study focused only on people who are in the labour market which consists of those that are already working and those seriously searching for jobs. Data on labour market and individual characteristics was used to estimate multinomial logit model of occupational choice. The dataset used for the analysis is a national survey 2022. The key variable of interest is gender. Within the multinomial logit model framework, we focused the estimation on gender influence on occupational choice using different classification of occupation like employer; self -employed farmer; self -employed trader; Self- employed; employee wages etc. The variables at the right hand side of the multinomial logit model were gender; age of the individual; marital status; rural/urban, etc. The results show that females are less likely than males to prefer a choice of employment in the public sector. Second, females are less likely than males to prefer a choice of employment as self- employed farmer to choice of wage employment in the public sector among others.

Keywords: Gender, Occupational Choice, Labour Market, Economic, Human Capital Development, Nigeria.

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INTRODUCTION

1.1. Background to the Study

Gender equality is one of the core principles of the international labor organization, gender inequality persists in the labor market. For this reason, we have chosen to examine gender and occupational choice in the Nigerian labor market and its implications for the development of human and economic capital. Gender inequality in the labor market and unemployment vary among the countries of sub-Saharan Africa. Some have gender gaps that are persistent, while others have changed recently. In addition, some countries have seen a decrease in gender and occupational choice, while others have seen a steady decline. Over the years, gender differences are frequently debated in relation to access to economic opportunities in Nigeria labour market. According to National Bureau of Statistics (2020), the federal civil service which is the highest employer

of labour in the formal employment, women are mostly found in junior positions and most of their contributions to economic activities are not well paid for as in the case of Nigeria. Women's unpaid labour is twice that of men and its economic value is a sizeable proportion of the nation's gross national product. Studies have also shown that men and women have been entering the labour market for years yet the proportion of women entering has not been greater than that of men. It seems however, that the continued feminization of the labour force is associated with rising rates of female unemployment and the feminization of generally insecure forms of employment (Casale & Posel, 2002).

The problem of occupational selection has generated a lot of interest among scholars especially in an attempt to understand gender aspects of career choice. Many types of occupation have continued to be sex-stereotyped. Some are commonly characterized as historically male dominated; such as electrical engineering, mathematics, and chemistry, whereas others tend to be viewed as more appropriate for women, like administrative positions and nursing. In fact, these occupational stereotypes are so pervasive in our society that they are even learned by children as young as three years old (Stockard & McGee, 1990) also made important points relating the on-going relationship between occupational gender segregation, occupational gender stereotypes, occupational interests and occupational choice. The idea is to secure free and informed career choices, regardless of one's discipline or gender. Researchers agree that a large part of gender differences are innate not society-fostered. There would still be an enormous overlap of abilities between individual women and men. In any case, the point is to enable people to have a choice. In Nigeria for instance, boys and girls often undergo different socialization experiences, learn different gender roles and behavioural patterns and then develop different interests. These roles and interests will later become the dominant factors in career choice. Gesinde (2021) in his study showed that gender plays an important role in determining the career preferences of individuals. Gender differences in occupational choice are frequently debated in relation to gender differences in labour market participation. In Nigeria, for example, the distribution of gender in different sectors of employment is shown in the table below.

Table 1.0. Sectoral Distribution of Labour by Gender

| Industry | Both Sexes | Male | Female |
|---------------|------------|------|--------|
| Agriculture | 54.5 | 61.4 | 43.4 |
| Mining | 0.0 | 0.0 | 0.0 |
| Manufacturing | 3.0 | 3.1 | 2.9 |
| Utility | 0.3 | 0.5 | 0.1 |
| Construction | 0.5 | 0.7 | 0.1 |
| Trade | 24.9 | 13.6 | 43.2 |
| Transport | 2.6 | 4.0 | 0.2 |
| Finance | 0.5 | 0.7 | 0.2 |
| Service | 13.7 | 16.0 | 9.9 |

Source: United Nations Development fund for Women (**UNIFEM**) 2020)

From table 1.0 it shows that agriculture and trade rank are the dominant occupation. These are followed by services while mining occupies lowest position in occupational distribution. The table further reveals that more women are found in petty and informal trading under the informal sector. Similarly, the difference in percentage points between the proportions of males engaged in agriculture is not much which supports the views of Standing (2000) that women are mostly employed in agriculture and informal sectors. Therefore, this study is timely and important in order to understand the relationship between gender and occupational choice in the Nigerian labour market.

Women are being constrained in the labour market in a number of ways. First, there has been a great deal of concern about the discriminatory practices in the labour market based on gender considerations. Woodlard (2002) noted that several practices, beliefs and stereotypes are held against the female gender as regards their suitability for certain jobs, eventual employment and advancement on the job. It is also extremely difficult in some societies for women to go beyond a particular career level. Some jobs are taken as the exclusive preserve for the male gender, while women are usually employed in those areas where their weakness can be managed or tolerated. The implication of these is that the rate at which women participate in the labour force is dictated by societal norms. Second, women are discriminated against in terms of employment opportunities. According to the World's Women (2010), the percentage of women that participate in labour force is still as low as 40% which is less than half. This is consistent with the view that women generally have higher rates of unemployment and especially of under-employment and disguised unemployment than men and find it difficult to re-enter employment once they lose their jobs, (Lim (2002). This is also the case in Nigeria where women face significant under-employment in white collar jobs. Although there was a slight increase from the 37% in 1990 to 40% in 2010, the gender gap is still very wide as men hold 75% of the jobs in 1990 and 69% in 2010. Female labour force participation increased 52.09% from 2010 to 2022. (World Bank, 2022). Yet, this number is grossly inadequate considering the number of employable women who cannot find jobs. Moreover, age-specific employment distribution in Nigeria does not favour women, as shown in table 2 below:

Table 1.1: Employment Rates in Nigeria within Age Group.

| Age Group | Men | Women |
|-----------|------|-------|
| 15-19 | 25.5 | 11.7 |
| 20-24 | 59.6 | 28.1 |
| 25-29 | 90.1 | 39.7 |
| 30-34 | 97.7 | 41.9 |
| 35-39 | 98.9 | 51.6 |
| 40-44 | 98.8 | 57.2 |
| 45-49 | 99.2 | 67.0 |
| 50-54 | 97.9 | 69.5 |
| 55-59 | 97.6 | 61.0 |
| 60-64 | 78.5 | 41.9 |
| 65 + | 49.1 | 29.6 |

Source: International Labour Organization (ILO, 2020).

From table 1.1, it was observed that the highest percentages of men are employed within the age group 45-49 (99.2%) while the highest percentages (69.5%) of women that are employed are within the age group 50-54. This is not surprising since it is outside the childbearing age bracket of 15 - 49. It can easily be inferred that women get more actively involved in labour force after the childbearing age. This is as a result of occupational segregation with respect to female occupation in the labour market. In the area of occupational distribution, NBS data (2014) show that in 2015 only 32.5% of women were employed in the (non-agricultural) private sector. Women are significantly under-represented in secured wage employment in both the private and public sectors. Those who have formal sector jobs are constrained by the reproductive roles they play. As a result, the majority of women occupy low level posts that offer them the flexibility they need to manage their households while working in the formal sector. According to ILO statistics (2018), 51.9% of people over the age of 15 are employed in some capacity, but men are more likely to be employed (56.4%) than women (47.3%). High levels of poverty, geographical inequality, and social and political discontent are all rooted in inadequate job prospects. More job and income opportunities have been created as a result of economic expansion, but this has not kept up with the rapid increase in the working-age population. Low skill levels cause many employees to be marginalized, and women are particularly disadvantaged since they are forced into low-productivity, low-paying jobs (World Bank, 2015) Therefore the objective of this research is to examine gender and occupational choice in the Nigeria labour market using cross sectional data and its implication for economic growth and development.

LITERATURE REVIEW

Gender often refers to behavioural, social and psychological features of men and women. Gender is determined socially; it is the societal meaning given to male and female. Each society buttresses particular role that each sex should play, although there is wide latitude in acceptable behaviour for each gender (Hesse-Biber and Carger, 2000). According to Ostergaad (1992), the term 'gender' refers to qualitative and interdependent character of women's and men's position in society. On the other hand, Sex refers to the biological state of being male or female. Gender relation instead of referring to women or men, focuses on the social relationships between them. Gender relations are socially constructed and they vary across culture and time. Gender roles are those activities that are considered appropriate to a man or woman in a given society, this means that division of labour is done along gender lines.

There is no consideration for the actual suitability of the individual for a given role. Individuals merely accept whatever role society assigned to them as given and this often results in gross inequality. Gender based inequality starts at the household level where women are left with the burden of most domestic chores. Gender is another variable which determines the choice of career among students if proper vocational guidance is not administered. These research findings indicate that gender has effect on vocational interest.

There are also a plethora of literature on gender and occupational choice in labour market. These studies include Aderemi and Alley (2019) which found that public sector has a narrower gender pay gap than the private sector because of superior educational credentials and a bigger income stream brought on by longer employment. The gender wage gap is largely caused by discrimination, even if it is more pronounced in the private sector. Women's bias in hiring decisions is a significant issue in the private sector but is less of an issue in the public sector. The findings also demonstrate the existence of a sticky floor in the private sector and a glass ceiling in the public sector. Both sectors should implement policies to address discrimination against women in employment and wage setting. To eliminate the wage gap, it is important to encourage greater female engagement in the private sector through the establishment of jobs that are inclusive of women. Using real-time data on employment, unemployment, labour force participation, and gross job flows, Albanesi and Jiyeon (2021) examined the effects of the COVID-19 Recession on the US Labor Market: Occupation, Family, and Gender to examine the effects of the pandemic by occupation, gender, and family status. We also talk about the crisis's possible long-term effects, especially how automation is preventing the worst-hit service occupations from recovering their employment.

Similarly, in their analysis of a representative sample of respondents in the U.S., Germany, and Singapore during the COVID-19 pandemic, Reichelt, Makovi, and Sargsyan (2021) found that women experienced unemployment transitions, work-hour reductions, and work-from-home transitions more frequently than men, though not to the same extent across the three countries. The study also shows that among couples who were employed at the start of the pandemic, men express more traditional attitudes toward gender roles if they lost their jobs but their partners kept their jobs, while women express more egalitarian attitudes toward gender roles in these situations. These findings suggest that gender-role beliefs may change to reflect actual circumstances. The long-term effects will depend on how men and women react to future changes in the employment landscape as economies grow stronger.

Despite the fact that many of the limitations that were once thought to be the cause of occupational segregation and wage differences by gender appear to have lessened over time, these discrepancies still exist. The likelihood that men and women prefer various types of work material is sufficient. The association between job satisfaction and job mobility is used to assess a proxy for an occupation's work-related tasks, which are referred to as "people," "brains," and "brawn." The findings imply that women prioritize employment with high "people" content and a low "brawn" content. Men exhibit similar concerns about job content, but their preferences are significantly weaker. In a discrete choice experiment, high school students exhibit comparable preferences, demonstrating that their decisions are primarily influenced by their preferences for the task itself. They contend that occupational sorting, which frequently directs women into occupations with significant pay penalties for interruptions due to motherhood, can be explained by the more strong preferences of women. (Lordan & Pischke ,2022).

In order to determine if the lengthy workweeks demanded by many well-paying professions prevent women from entering the workforce, (Wasserman, 2023) examined a 2003 policy that limited the average workweek for medical residents to 80 hours. His study found that when a specialty reduces its weekly hours, more women enter the specialty, although there is minimal change in men's enrollment, using data on the entire population of US medical school graduates. It was also clear that labor supply changes rather than changes in labor demand are to blame for the rise in the number of women. The findings show that baseline female representation in residency programs forecasts female entry following the change. A rough calculation indicates that the reallocation of women among medical specialties as a result of the hours decrease could eliminate the 11% difference in physician pay between men and women.

A number of studies found that occupations in advanced economies are highly gender segregated. Moreover, gender integration—similarity between women and men's wages and activities—occurs more in professional and managerial jobs than in clerical and blue-collar occupations, despite this however, male graduates are more likely than female to be in upper management and in high prestige professions, whereas women graduates dominate in professions such as nursing or teaching (Cotter et al. 2004). Triventi, 2011 (for Eleven European countries example; Austria, Germany, Belgium etc) shows that despite high numbers of female graduates in Europe, once in the labour market, overall, women get lower wages than their male colleagues with the same type of education, thereby resulting in the 'gender wage gap'. He also reported that Austria and Germany have larger differences in wages (women's wages are around 62-67% that of men). In Spain, Finland, the Netherlands, Czech Republic and Italy, the gender gap is relatively lower (women's wages are around 70-75% that of men). The lowest gender wage gap is in the United Kingdom and Belgium, where women's average wage is more than 90% that of men.

In their model-based quantitative analysis of this story, Erosa, Fuster, Kambourov, and Rogerson (2022) discover that it can explain a sizable portion of the gender inequalities in occupational choice, salaries, and hours. In contrast to Goldin, their study places more emphasis on the quantitative importance of two important factors: variability in comparative advantage and multimember families. The wellbeing and productivity are significantly impacted overall by gender inequalities in nonmarket obligations.

Folke and Rickne (2022) research examines the role that sexual harassment plays in the labor market's sex segregation and pay disparities. They demonstrate that both harassment and salaries differ significantly and consistently among workplaces using a combination of data from administrative and nationally representative survey samples. In male-dominated workplaces with relatively high earnings, women self-report more harassment from coworkers and bosses, and in female-dominated workplaces with low wages, men self-report more harassment. These patterns suggest two possible mechanisms by which harassment might exacerbate gender disparity. First, harassment discourages both men and women from applying for employment where they are the

minority gender. A survey experiment using fictitious employment options shows that this process works. Respondents are quite reluctant to accept employment in environments where their own gender has a larger danger of harassment, but they are less reluctant when the opposite sex faces a greater risk. Another way that harassment leads to inequality is by forcing employees who identify as a gender minority to look for new employment. This process is supported by a study of transitions in the workplace. Self-reported harassed women are more likely to leave for new jobs with lower income and more female coworkers. Women's occupation tends to be discontinuous, featuring part time work. They tend to be secondary wage earners within the family. Their careers tend to slow down after some years of labour market participation once they have children and they find that occupation bears disadvantage them in relation to future promotion (Hassler, 2014).

Kuhn & Wolter (2022) assert that occupational classification along this dimension closely aligns with actual job tasks, taken from an independent data source on employers' job advertisements, by using detailed information on the cognitive requirements in 130 different learnable occupations in the Swiss apprenticeship system to describe the broad job content in these occupations along the things-versus-people dimension. Their findings indicate that, in contrast to male apprentices, female apprentices select occupations that entail working with people, while male apprentices favor careers that require working with things. In fact, their study leads to the conclusion that this variable is one of the most significant proximate predictors of occupational gender segregation by any statistical standard. In a further step, they replicate this finding using individual-level data for a sample of teenagers at the beginning of eighth grade and the end of ninth grade, respectively, on both professional aspirations and actual occupational choices. Finally, we demonstrate that the gender difference in occupational preferences is essentially independent of a large range of individual, parental, and geographic factors using these new data.

Empirical Literature.

A plethora of empirical literature on gender and occupation choice in labour market abound. For instance, in Nigerian institutions, Angwaomaodoko (2023) investigates how gender affects students' academic success and professional goals or choices. 261 final-year students from several Nigerian universities made up the study's sample. Utilizing questionnaires that asked about academic achievements and other relevant information, data was gathered. The study's findings showed that male students had slightly higher overall CGPA scores than female students. In terms of career aspirations, more female students tended to choose courses related to art and management while more male students were found in courses with a focus on engineering and technology. According to the study, gender differences in Nigerian institutions have a negligible impact on students' academic progress. The study instead found that students' perceptions of gender significantly impacted their job aspirations. According to the study, encouraging students to have more career freedom will probably lead them to pursue fields that entirely conflict with their gender inclinations.

Similar to this, Ayob, Abd Hamid, and Sidek (2022) investigate how personal values such as self-direction, power, and goodness influence judgments regarding one's job (self- or paid work). This study investigates the moderating impact of cultural circumstances (gender egalitarianism, performance orientation, and collectivism) on this relationship by studying variability in career trends across nations. They evaluate hypotheses using the World Values Survey (WVS) Wave 6 data and GLOBE cultural dimensions from 21,286 individuals in 26 countries, combining the theory of human values (THVs) with institutional theory (IT). Only self-direction value improves the likelihood of being self-employed, according to the data. The post-hoc analysis, however, provides more illuminating results; the choice of innovative entrepreneurship over routine self-employment is explained by the values of autonomy, dominance, and goodness along with individualistic culture. Overall, this study concludes that individual values have a higher influence on career choice than cultural background, and that this influence varies between self- and paid work as well as between innovative entrepreneurship and routine self-employment.

Akinlolu (2023) investigates how gender stereotypes affect students' decisions about their future careers in construction. A convenient sample of 229 students enrolled in programs linked to construction was surveyed. The study's goals are to assess how gender stereotypes affect profession choice behavior and how gender and socioeconomic position affect how gender stereotypes affect students' career decisions. Tests for statistically significant differences between gender and socioeconomic status (SES) groups were conducted using the Mann-Whitney U and Kruskal-Wallis tests. According to the findings, women are more likely than men to believe that gender stereotypes have a greater impact on their decision to pursue a particular vocation. According to the study, gender stereotypes differ statistically significantly between low and middle socioeconomic categories.

Similarly, Shanika (2022) investigates how perceived gender ideologies and professional preferences affect women's career advancement in the legal field. The study used a quantitative methodology and then included 360 female attorneys in mid- and late-career phases in a cross-sectional survey. The sample was chosen using the purposive sampling technique. Self-administered questionnaires were used to collect the data, which was then analyzed using Structural Equation Modeling (SEM) and Analysis of Moment Structures (AMOS). Using a purposefully selected sample of women lawyers in their mid- and late careers, 360 valid questionnaires have been sent for data analysis. The actual data showed that women's perceived gender ideology significantly affects their ability to develop in their careers. In addition, women lawyers' job choices buffer the link between perceived gender ideology and career progress. The present context has not revealed a substantial association between profession choice and career advancement, in contrast. Furthermore, this study found that, with the exception of challenge, none of the three criteria for career choice—authenticity, balance, and challenge—resulted in meaningful associations with perceived gender ideology and career advancement.

The dynamic relationships between economic development, gender inequality, trade openness, and labor force participation in Malaysia over a 40-year period from 1980 to 2019 was examined by Akhtar, Masud, Jafrin, and Shahabudin (2023). Trade openness and female labor force participation have significant and significant influence on economic growth, according to the results of the autoregressive distributed lag. According to the results of the nonlinear autoregressive distributed lag-bound test, there is a long-term association between female labor force participation and economic growth that is not evenly distributed. The economic growth of Malaysia is affected differently by the favorable and unfavorable shocks of rising labor force participation. The Granger causality results showed that there is a unidirectional association between economic growth and male labor force participation, trade openness and male labor force participation, as well as the gender parity index and female labor force participation. There is also a bidirectional association between male and female labor force participation. These results imply that higher trade openness, improved gender parity, and increased female labor force participation all lead to rapid economic growth.

Aduku, Anyanwu, and Edeme (2022) used the classical production function to analyze the relationship between the gender gap in labor force participation, rapid growth, and economic welfare in Sub-Saharan Africa (SSA) from 1981 to 2020. In order to analyze the data, the generalized method of moments (GMM) technique was used. The empirical finding indicated that the gender gap in labor force participation has a negative and significant impact on rapid growth. Additionally, it was discovered that the gender disparity in labor force participation had a detrimental but minor impact on SSA's economic well-being. According to the study, while female labor force participation had a negative and significant impact on intensive growth and a negative and insignificant impact on economic welfare, male labor force participation had a positive and significant impact on both intensive growth and economic welfare. Both intensive growth and economic welfare benefited greatly from trade liberalization. According to the results, the SSA area needs to pay more emphasis to closing the gender gap in labor force participation.

In the mining industry in Ghana, Kurantin & Osei-Hwedie (2023) looked into the theory of labor market segmentation and income disparity. In Ghana's three main mining districts, mining activity, particularly gold mining, has been a key source of exports, employment, and money. Although income growth is good for the economy, there may be more income inequality due to the high incomes in the mining industry. In the Western, Eastern, and Ashanti areas of Ghana, mining activity and income disparity are examined in this chapter. The kind and amounts of mining employment are found to be highly correlated with the use of labor market segmentation and the Gini coefficient (a measure of income inequality). Although this observation is not linear, it does follow a Kuznets curve pattern in that income inequality first rises with mining activity before falling at medium to high levels of employment. Datasets for native and foreign employees are separated, and they show quite different trends in income disparity. At high levels of mining employment, it poignantly rises with indigenous and/or local community employees compared to expatriate technical personnel; income inequality is smaller among local community members compared to

nationals from other regions and/or from neighboring countries. Thus, segmented labor markets (SLM) in the mining sector are likely to be an issue since they lead to greater income inequality between regions as compared to international expatriates.

Previous studies reviewed in this work such as those by Oladele (1991), Olayinka (1993), Organisation for Economic Co-operation and Development -OECD (2016), Sharf (2016), Dabalén et al (2000), Enfield (2019), Uwajumogu, Nwokoye, Ogbonna & Okoro (2019), Kuhn & Wolter (2022), Angwaomaodoko (2023), Ayodele (2019) Olarewaju, Mickiewicz, & Tamvada (2019), Aderemi & Alley (2019) Adeosun & Owolabi (2021), Kurantin & Osei-Hwedie (2023), Folke and Rickne (2022), Akinlolu (2023) and Akhtar, Masud, Jafrin, and Shahabudin (2023) show that with proper guidance students will choose an occupation or career that will give them satisfaction and make them feel fulfilled in life, they choose occupation they have interest in regardless of their gender. However, there is a dearth of studies on the relationship between gender and occupational choice in Nigeria labour market while few of the studies that have addressed gender and occupational choice and labour markets are mostly in developed countries which have fundamentally different setting. As a result policy conclusions from such studies cannot be replicated in developing countries setting like Nigeria. The relationship between gender and occupational choice in the Nigeria labour market has been under studied given the emergence of richer datasets recently published by the National Bureau of Statistics. Also previous studies in Nigeria failed to trace the relationship between gender, occupational choice and labour market and how they enhance inclusive labour force participation in Nigeria. This is the area this study will make contribution to literature and existing body of knowledge.

METHODOLOGY

Theoretical Framework

The feminism theory, which is based on the idea that women should not be discriminated against and should instead be granted the same rights, privileges, and opportunities as men, serves as the theoretical underpinning for this work. The writings of Chafe (1972), Gelles and Levine (1990), as well as others, helped the idea take off and grow in popularity. Being gender sensitive, it fiercely opposes all forms of gender inequity. The law of this theory is the restoration of women's self-esteem and respect, as well as the elimination of all social, cultural, and historical obstacles to their attaining self-actualization. The choice of feminism as the proper theoretical framework for this study's direction was made because it reveals the political, social, and cultural constraints placed on women's ability to realize their full potential and participate in various facets of society. Occupation is one such strategic facet of social life, valued for its connection to means of subsistence, sustainability, and satisfaction of fundamental human needs.

This hypothesis is important because it supports the idea that women should have the same access to occupations as men. Women should not be limited to a specific field of work or have their professional advancement held back in favor of men. The theoretical viewpoint

of feminism, which calls for equal rights and possibilities for women in society, is in direct opposition to any type of subjugation. In accordance with the ideology of feminism, no society can advance if all of its constituent parts are not supported. Feminist theorists distinguish between two primary portions, namely the masculine and female segments. In order to accomplish overall holistic progress, advancement, and development in the society, both should be merged equally.

The Model

This study followed a model of unordered choices following Combarous (1999) where the individual “*i*” compared the different levels of utility associated with various choices and then chose the one that maximized his or her utility U_{ij} among the utilities j (Combarous 1999).

For the individual “*i*” the utility of choice j is:

$$U_{ij} = \beta' X_{ij} + \varepsilon_{ij} \dots \dots \dots 3.1$$

Where X_{ij} is the vector of observed individual characteristics, β' is the vector of unknown parameters, and ε_{ij} a random term of error. The utility function is composed of a stochastic component which is a function of the observed individual characteristics and a non-stochastic component which is a linear function of the observed variables. The probability that the individual “*i*” participated in labour sector j is the probability that the utility of the sector j is higher than that associated with the other segments:

$$\text{Prob} (U_{ij} > U_{ik}) \text{ for } k \neq j; j, k = 0, 1, 2$$

This means that the probability that the individual “*i*” participated in the labour sector j is the probability that the differential between the random components is higher than the difference between the non-random components:

$$\text{Prob} (X\beta_j - X\beta_k) > (\varepsilon_k - \varepsilon_j) \text{ for } k \neq j; j, k = 0, 1, 2 \dots \dots \dots 3.2$$

The maximization of the underlying utility function produces individual decisions as a function of an average reservation wage and an average disutility of labour. It can be assumed that people weigh the costs and the pecuniary and non- pecuniary benefits associated with the different segments of the labour market before choosing the segment that offers the greatest utility (El Aynaoui, 1996). Thus, the desired wage and the disutility of labour vary according to the choice made.

A person can choose a specific job even if the benefits that it offers are less advantageous than those offered by another job. So, if one assumes the lack of entry barriers, people will choose jobs on the basis of the respective comparative advantages, whether these are pecuniary or non-pecuniary.

This study employed a multinomial logit model to determine the ex-ante choice of activity for individuals who are in the labour market and those who want to join the labour market.

It is important to point out that those who are already in the labour market may not necessarily be working in their preferred sectors. The use of the multinomial logit model was justified by the fact that people must choose between several alternatives that are mutually exclusive. In other words, choosing one activity sector excludes the possibility of being in another activity sector at the same time especially in developing country labour market setting where people work from morning to evening and where there is hardly any off duty time employment opportunities.

The labour market survey questionnaire of the Nigeria Living Standards survey contains questions that asked respondents their preferred sector of employment and main occupation wanted.

In terms of the activity sector, the responses were classified into seven choices namely; employer, self-employed farmer, self-employed trader, self-employed others, employee wages sector private, employee wages sector public and paid apprentice. This means that in the labour market, it is assumed that each individual “*i*” chooses between seven alternatives that are mutually exclusive (so that $j = 1$ to L as already classified in the dataset).

Specification of Multinomial Model

In order to specify the multinomial model of occupational choice where individuals chose one amongst the $L > 1$ alternatives facing them in the labour market, let the outcome y_i for individual i be one of L alternatives. We set the outcome $y_i = j$ if the outcome is the j th alternative, $j=1, 2, 3, \dots, L$.

The values $1, 2, 3, \dots, L$ are arbitrary. Let X be a $(j \times 1)$ vector of an individual's characteristics (such as education level, age, gender, marital status, household size, rural/urban location, specialist,) which affect the occupational choice and let β_i be a $(1 \times j)$ vector of coefficients attached to X . Then, a Multinomial Logit Model (*MNL*) of occupational choice with all variables as case-specific can be specified as follows:

$$P_{ij} = \frac{\exp(\beta_i X_i)}{1 + \sum_{j=1}^L \exp(\beta_j X_i)} \dots\dots\dots 3.3$$

Where P_{ij} is the probability that individual i chooses alternative j , X_i are case-specific regressors including the intercept term. Clearly this model ensures that

$$0 < P_{ij} < 1 \text{ and } \sum_{j=1}^L P_{ij} = 1 \dots\dots\dots 3.4$$

The MNL model given by (3.3) and (3.4) can be equivalently written in the “log of odds” form as follows:

$$\ln \frac{P(y=i/X)}{P(y=0/X)} = \beta_i X = 1, \dots, L \dots \dots \dots 3.5$$

Since occupational category 0 was used as the ‘base’ category and *ln* represents natural logarithm, we estimated the model using activity sector as independent variable and also using main occupation as independent variable. This is where this work differs from already existing works in Nigeria.

Independent Variable for Multinomial Logistic Regression

Gender

Female is the key variable of interest in this research work. We used a dummy variable for gender as female=1 and male=0, just to focus the estimation on the female workers.

Age

Age variable is available in the survey data as a continuous variable that was further converted into a categorical variable with different group showing four different stages of life. We used age as continuous variable and also used it as a categorical variable to see if stages of life matter for occupational selection.

Rural/Urban location

The location of a person can affect his/her choice of occupation. For instance, the person might decide to settle for jobs around his / her vicinity instead of taking new risk by moving to a new area where new or better job opportunity lies.

Marital Status

Marital status of respondents has strong influence on occupational choice. People who are married are less likely to seek job in faraway locations from where the couple is currently living especially women. For simplicity marital status variable was reclassified as never married, married, widower, separated and divorced.

Education (educ_tertiary)

Education variable is mostly always available in household surveys categorical variable instead of years of education. This makes sense especially when people stay more years in school without getting additional qualifications. The categorization of education is as follows: 0=No formal education; 1=primary; 2=secondary; and 3=for tertiary education levels. Further classifications are possible with the dataset.

House hold size (hsize)

This is the number of persons in the house hold.

Specialist:

Specialist takes the value 1 if the person has professional qualification and 0 otherwise.

Data Description

The dataset used for analysis in this study is the 2020/2021 Harmonized Nigeria Living Standard Survey (HNLSS) published in 2019 by the National Bureau of Statistics (NBS). The survey covered all the 36 states of the federation including the Federal Capital Territory FCT. The sample studied for the Harmonized Nigeria Living Standard was designed to have LGA as reporting domain.

However, the sample design for the survey also facilitated the provision of estimates at national and sub-national levels (National, zone and state). The sampling frame for all the 774 LGAs in the country used the Enumeration Areas (EA) demarcated by the National Population Commission (NPC) for the 2006 Housing and Population Census. The frame was constructed into replicates such that each LGA had 3 replicates and in each replicate there are 10 EAs serially numbered 01-10.

A complete listing of housing units and households was done in each of the EAs just before the start of the main survey (NBS, 2019).

A two-stage sample procedure was adopted in the survey of which selection of Enumeration Areas (EAs) constituted the first stage/Primary Sampling Units (PSUs), while selection of Households (HHs) formed the second stage/Secondary or Ultimate Sampling Units (USUs). A sample size of 10 EAs was selected per LGA for study, while 10 HHs were systematically selected in each EA where the HNLSS Household Part A Questionnaires were administered.

This produced 100 households per LGA and 77,400 HHs nationally (NBS, 2019). The 2020 harmonised survey is an extended survey compared to the 2004 survey because it gathered data for more than 332,000 individuals and over 192,000 of them were in the labour market into various sectors of employment. The 2004 survey, on the other hand, includes over 92,000 individuals more than 55,000 of who are in the labour market.

One advantage of the datasets is that they captured most of the conceivable variables that can be used to conduct an in-depth analysis of the labour market outcomes. The data also contain enough observations to study the labour market into the various sectors we have specified.

The questionnaire used for data collection was very comprehensive. Individual labour market characteristics can also be linked to the household characteristics including household ownership of variables and other intra-household labour allocations.

The data were properly weighted to account for under or over representation of certain units in the population. Sampling weights were also applied where appropriate.

Presentation and Interpretation of Results

Descriptive Statistics

Table 1.2: Description of Employment Choice in the Data

| employment status wanted | Freq. | Percent | Cum. |
|-----------------------------------|-------|---------|-------|
| Employer | 77 | 3.5 | 3.5 |
| self-employed (farmer) | 260 | 11.81 | 15.3 |
| self-employed (trader) | 130 | 5.9 | 21.21 |
| self-employed (others) | 154 | 6.99 | 28.2 |
| employee wages & salary (private) | 570 | 25.89 | 54.09 |
| employee wages & salary (pub) | 939 | 42.64 | 96.73 |
| paid apprentice | 72 | 3.27 | 100 |
| Total | 2202 | 100 | |

Source: Authors' computation from the household survey data

The table 1.2 shows the classification of employment choice in terms of frequency and percentages as recorded in the data. The classifications show that most people are interested in working with the public sector wage or salary jobs. That is, 939 of 2202 employees captured in the data which is about 42.64 percent prefer to work in the public sector. Few would prefer to be employers of labour and to work as paid apprentice and about 25.9 percent would prefer to work in the private sector. The reason for preferred choice of public sector wage employment is not far-fetched. Even though most public sector wage employment occurs in Ministries, Departments and Agencies (MDAs) with mostly lower wages compared to some organized private sector. People prefer those jobs because of job security and other benefits such as health insurance, leave periods and allowances, retirement benefits, and so on.

Table 1.3: Descriptive Statistics of the Variables by Choice of Employment

| employment status wanted | Mean (education Tertiary) | Mean (specialist) | Mean (female) | Mean (rural) | Mean (married) |
|----------------------------------|---------------------------|-------------------|---------------|--------------|----------------|
| Employer | 0.1948 | 0.1948 | 1.2987 | 1.7403 | 0.61039 |
| self-employed (farmer) | 0.0385 | 0.0885 | 1.3115 | 1.9577 | 0.796154 |
| self-employed (trader) | 0.0231 | 0.1000 | 1.5769 | 1.8077 | 0.784615 |
| self-employed (others) | 0.1039 | 0.1948 | 1.3117 | 1.6039 | 0.681818 |
| employee wage & salary (private) | 0.2404 | 0.2526 | 1.2246 | 1.6614 | 0.287719 |
| employ wage & salary (pub) | 0.2801 | 0.1502 | 1.4313 | 1.7796 | 0.331203 |
| paid apprentice | 0.1528 | 0.0972 | 1.4167 | 1.8611 | 0.652778 |

Source: Authors' computation from the household survey data

Table 1.3 is an extended form of table 1.2 and shows the mean of the willingness of individuals with various characteristics or qualifications to participate in different forms of employment. Looking at education level, the table shows that the proportion of individuals with education level of tertiary that want to work as employers of labour is 0.1948; the proportion that would like to work as self-employed farmer is 0.0385; the proportion that

would like to work as self-employed trader is 0.0231; the proportion that would like to work in other forms of self-employment is 0.1039; the proportion that would like to work in wage employment in the private sector is 0.2404; the largest proportion of 0.2801 would prefer to work in the public sector wage employment, while 0.1528 would like to work as paid apprentice. The table further shows that the largest proportion of individuals with specialist qualification (about 0.2526) would like to work in private sector wage in employment and similar proportion (that is 0.1948) as in those with tertiary education would like to work as employers and in other forms of self-employment. More females would like to work as self-employed traders and followed by employment in public sector wage employment. Women prefer self-employed trading because it is not only most common type of employment for women in Nigeria but it has also become customary. Also, largest proportion of people that would like to work as self-employed farmers, self-employed traders and paid apprentice come from the rural areas.

Multinomial Logit Model of Employment Choice

Table 1.3 reports the multinomial logistic coefficients while table 1.4 reports the multinomial relative risk ratios. The base outcome is wage employment in the public sector and the results are interpreted relative to this outcome. The covariates or regressors are all alternative invariant or specific. That is, they do not vary across alternatives choice of employment but they do vary by individuals. These regressors are female, age, rural, married, education tertiary, household size, and being a specialist. For each choice of employment, the interpretation of the results is done only for female and other variables that are statistically significant.

Employer relative to wage employment in the public sector

Female- This is the multinomial logit estimate comparing females to males for employer relative to wage employment in the public sector, given that the other variables in the model are held constant. The table shows that the multinomial logit for females relative to males is -0.55211 and this coefficient is statistically significantly different from zero (p-value is 0.035 which is less than the conventional 0.05). This means that females relative to males is 0.55211 unit lower for preferring employer to wage employment in the public sector. In other words females are less likely than males to prefer a choice of employment as employer to choice of wage employment in the public sector. This is also consistent with the results in table 4.4 that the relative risk of being an employer than working in the wage public sector would increase by a factor 0.5757. This is less likely since it is less than one.

Age- this is the multinomial logit estimate of the effect of age on choice of employment as employer relative to choice of wage employment in the public sector. The results show that if the individual's age increases by one more year, the multinomial log-odds for preferring employer to wage employment in the public sector would be expected to increase by 0.0369 units while holding other variables in the model constant. Again, this variable is statistically significant and this means that aged people are more likely to work

as employers than as wage earners in the public sector. This is consistent with the relative risk which increases by a factor 1.038 which means that aged people are more likely to work as employers.

Married-this is the multinomial logit estimate of the effect of marital status on the likelihood that the individual would prefer to be an employer to wage employment in the public sector. The results show that log-odds for married individuals is 0.6522 unit higher than unmarried people for preferring employer to wage employment in the public sector. In other words, married people have higher log-odds for choice of employment as employers relative to wage employment in the public sector than unmarried people.

Educ_tertiary-the log-odds for individuals with tertiary education for preferring employer to wage employment would be expected to decrease by 0.5676 unit compared to those with less than tertiary education. This is only significant at 10 percent level of significance. Also, with low relative risk ratio of 0.5669 more educated people are less likely to work as employers of labour than working in wage public sector.

Self-employed farmer relative to wage employment in the public sector

Female- The table shows that the multinomial logit for females relative to males is - 0.63473 and this coefficient is statistically significantly different from zero. This means that females relative to males is 0.63473 unit lower for preferring self-employed farmer to wage employment in the public sector. In other words females are less likely than males to prefer a choice of employment as self-employed farmer to choice of wage employment in the public sector.

Age- this is the multinomial logit estimate of the effect of age on choice of employment as self-employed farmer relative to choice of wage employment in the public sector. The results show that if the individual's age increases by one more year, the multinomial log-odds for preferring self-employed farmer to wage employment in the public sector would be expected to increase by 0.0413 unit while holding other variables in the model constant. Again, this variable is statistically significant and this means that aged people are more likely to work as self-employed farmers than as wage earners in the public sector.

Rural: this is the multinomial logit estimate comparing rural residents to urban residents for choice of self-employed farmer relative to wage employment in the public sector, given the other variables in the model are held constant. The table shows that the multinomial logit for rural residents relative to urban is 1.51375 and this coefficient is statistically significantly different from zero. This means that rural individuals relative to urban individuals are 1.51375 units higher for preferring self-employed farmer to wage employment in the public sector. In other words rural individuals are more likely than urban individuals to prefer a choice of employment as self-employed farmer to choice of wage employment in the public sector

Married- The results show that log-odds for married individuals is 1.452889 unit higher than unmarried people for preferring self-employed farmer to wage employment in the

public sector. In other words, married people have higher log-odds for choice of self-employed farmer relative to wage employment in the public sector than unmarried people. The coefficient again is statistically significant.

Educ_tertiary-the log-odds for individuals with tertiary education for preferring self-employed farmer to wage employment in the public sector would be expected to decrease by 2.19382 units compared to those with less than tertiary education. This is statistically significant at 1 percent and the 5 percent levels of significance. This means that more educated individuals are far less likely to prefer self-employed farmer to wage employment in the public sector.

Hhsize- this is the multinomial logit estimate of the effect of household size on choice of employment as self-employed farmer relative to choice of wage employment in the public sector. The results show that if the household size increases by one, the multinomial log-odds for preferring self-employed farmer to wage employment in the public sector would be expected to increase by 0.0143 unit while holding other variables in the model constant. Again, this variable is statistically significant and this means that households with more members are more likely to work as self-employed farmers than as wage earners in the public sector. With more numbers in the household labour supply to farm activities is likely to be higher than households with fewer members. As a result, households with more members are motivated to work in farming.

Specialist-the log-odds for specialists for preferring self-employed farmer to employment in the public sector would be expected to decrease by 0.8655 unit. This means that specialists are far less likely as people with higher levels of education, to work as self-employed farmers if offered wage employment in the public sector. This is also consistent with the relative risk ratio which increases by a factor 0.4201 that is less than one.

Self-employed trader relative to wage employment in the public sector

Female- The table shows that the multinomial logit for females relative to males is 0.520622 and this coefficient is statistically significantly different from zero. This means that females relative to males is 0.520622 unit lower for preferring self-employed trader to wage employment in the public sector. In other words females are less likely than males to prefer a choice of employment as self-employed trader to choice of wage employment in the public sector.

Age- This is the multinomial logit estimate of the effect of age on choice of employment as self-employed trader relative to choice of wage employment in the public sector. The results show that if the individual's age increases by one more year, the multinomial log-odds for preferring self-employed trader to choice of wage employment in the public sector would be expected to increase by 0.02803 units while holding other variables in the model constant. Again, this variable is statistically significant and this means that aged people are more likely to work as self-employed traders than as wage earners in the public sector.

Married- The results show that log-odds for married individuals are 1.591313 unit higher than unmarried people for preferring self-employed trader to wage employment in the public sector. In other words, married people have higher log-odds for choice of self-employed trader relative to wage employment in the public sector than unmarried people. Also, the coefficient is statistically significant.

Educ_tertiary- The log-odds for individuals with tertiary education for preferring self-employed trader to wage employment in the public sector would be expected to decrease by 3.13883 units compared to those with less than tertiary education. This means that more educated individuals are far less likely to prefer self-employed trader to wage employment in the public sector. This is statistically significant at 1% and the 5% levels of significance.

Hhsize- This is the multinomial logit estimate of the effect of household size on choice of employment as self-employed trader relative to choice of wage employment in the public sector. The results show that if the household size increases by one, the multinomial log-odds for preferring self-employed trader to wage employment in the public sector would be expected to increase by 0.0114 units while holding other variables in the model constant. This variable is again statistically significant meaning that households with more members are more likely to the household labour supply to trade activities is likely to be higher than households with fewer work as self-employed traders than as wage earners in the public sector with more numbers in members. As a result, households with more members are motivated to work in trading.

Specialist- The log-odds for specialists for preferring self-employed trader to employment in the public sector would be expected to decrease by 0.6656 units. This means that specialists are far less likely as people with higher levels of education, to work as self-employed traders if offered wage employment in the public sector. This is also consistent with the relative risk ratio which increases by a factor 0.5140 that is less than one.

Self-employed others relative to wage employment in the public sector

Female- The table 1.4 shows that the multinomial logit for females relative to males is - 0.60458 and this coefficient is statistically significantly different from zero. And it means that females relative to males is 0.60458 unit lower for preferring self-employed others to wage employment in the public sector. In other words females are less likely than males to prefer a choice of employment as self-employed others to choice of wage employment in the public sector.

Age- This is the multinomial logit estimate of the effect of age on choice of employment as self-employed others relative to choice of wage employment in the public sector. The results show that if the individual's age increases by one more year, the multinomial log-odds for preferring self-employed others to wage employment in the public sector would be expected to increase by 0.01904 units while holding other variables in the model constant. Also, this variable is statistically significant and this means that aged people are more likely to work as self-employed others than as wage earners in the public sector.

Rural: This is the multinomial logit estimate comparing rural residents to urban residents for choice of self-employed others relative to wage employment in the public sector, given the other variables in the model are held constant. The table shows that the multinomial logit for rural residents relative to urban is -1.16869 and this coefficient is statistically significantly different from zero. It means that rural individuals relative to urban individuals are 1.16869 units lower for preferring self-employed others to wage employment in the public sector. In other words rural individuals are less likely than urban individuals to prefer a choice of employment as self-employed others to choice of wage employment in the public sector.

Married- The results show that log-odds for married individuals is 1.2059 unit higher than unmarried people for preferring self-employed others to wage employment in the public sector. In other words, married people have higher log-odds for choice of self-employed others relative to wage employment in the public sector than unmarried people. The coefficient is again statistically significant.

Educ_tertiary- The log-odds for individuals with tertiary education for preferring self-employed others to wage employment in the public sector would be expected to decrease by 1.66789 units compared to those with less than tertiary education. This variable is statistically significant meaning that more educated individuals are far less likely to prefer self-employed others to wage employment in the public sector.

Hhsize- This is the multinomial logit estimate of the effect of household size on choice of employment as self-employed others relative to choice of wage employment in the public sector. From the result, if the household size increases by one, the multinomial log-odds for preferring self-employed others to wage employment in the public sector would be expected to increase by 0.007381 units while holding other variables in the model constant. This variable is statistically significant and this means that households with more members are more likely to work as self-employed others than as wage earners in the public sector. With more numbers in the household labour supply to other activities are likely to be higher than households with fewer members. Giving the above explanation, households with more members are motivated to work in other activities other than wage employment in the public sector.

Paid-apprentice relative to wage employment in the public sector

Age- This is the multinomial logit estimate of the effect of age on choice of employment as paid-apprentices relative to choice of wage employment in the public sector. The results show that if the individual's age increases by one more year, the multinomial log-odds for preferring paid-apprentice to wage employment in the public sector would be expected to increase by 0.03468 units while holding other variables in the model constant. This variable is statistically significant and this means that aged people are more likely to work as paid apprentice than as wage earners in the public sector. This is consistent with the relative risk which increases by a factor 1.0353 which means that aged people are more likely to work as paid-apprentices.

Married- This is the multinomial logit estimate of the effect of marital status on the likelihood that the individual would prefer to be a paid-apprentice to wage employment in the public sector. The results show that log-odds for married individuals are 0.873048 units higher than unmarried people for preferring paid-apprentice to wage employment in the public sector. This means that, married people have higher log-odds for choice of employment as paid-apprentices relative to wage employment in the public sector than unmarried people.

Educ_tertiary- The log-odds for individuals with tertiary education for preferring paid-apprentice to wage employment would be expected to decrease by 0.75171 unit compared to those with less than tertiary education. This is significant only at 10 percent level of significance. Considering the low relative risk ratio of 0.4716, more educated people are less likely to work as paid-apprentices than working in wage public sector.

Table 1.4: Multinomial Logit Model of Gender and Employment Choice in Nigeria

| Employment Status Wanted | Coef. | Std. Err. | Z | P> z | [95% Conf. Interval] | |
|------------------------------|----------|-----------|--------|-------|----------------------|----------|
| Employer | | | | | | |
| Female | -0.55211 | 0.262044 | -2.110 | 0.035 | -1.0657 | -0.03851 |
| Age | 0.036899 | 0.010669 | 3.460 | 0.001 | 0.015987 | 0.05781 |
| Rural | -0.36874 | 0.286193 | -1.290 | 0.198 | -0.92967 | 0.192186 |
| Married | 0.652224 | 0.296726 | 2.200 | 0.028 | 0.070653 | 1.233796 |
| educ_tertiary | -0.5676 | 0.312752 | -1.810 | 0.070 | -1.18058 | 0.045385 |
| Hhsize | -0.00045 | 0.004575 | -0.100 | 0.921 | -0.00942 | 0.008512 |
| Specialist | 0.091962 | 0.309355 | 0.300 | 0.766 | -0.51436 | 0.698287 |
| _cons | -2.39311 | 0.740392 | -3.230 | 0.001 | -3.84425 | -0.94196 |
| self_employed_farmer_ | | | | | | |
| Female | -0.63473 | 0.170285 | -3.730 | 0.000 | -0.96848 | -0.30098 |
| Age | 0.041296 | 0.00694 | 5.950 | 0.000 | 0.027695 | 0.054898 |
| Rural | 1.51375 | 0.337149 | 4.490 | 0.000 | 0.85295 | 2.174549 |
| Married | 1.452889 | 0.203384 | 7.140 | 0.000 | 1.054263 | 1.851515 |
| educ_tertiary | -2.19382 | 0.35121 | -6.250 | 0.000 | -2.88218 | -1.50546 |
| Hhsize | 0.014288 | 0.002184 | 6.540 | 0.000 | 0.010007 | 0.018569 |
| Specialist | -0.86549 | 0.267283 | -3.240 | 0.001 | -1.38936 | -0.34163 |
| _cons | -5.42363 | 0.745522 | -7.270 | 0.000 | -6.88482 | -3.96243 |
| self_employed_trader_ | | | | | | |
| Female | 0.520622 | 0.200788 | 2.590 | 0.010 | 0.127085 | 0.914158 |
| Age | 0.02803 | 0.008491 | 3.300 | 0.001 | 0.011389 | 0.044671 |
| Rural | -0.28007 | 0.257361 | -1.090 | 0.276 | -0.78449 | 0.224349 |
| Married | 1.591313 | 0.259717 | 6.130 | 0.000 | 1.082277 | 2.100349 |
| educ_tertiary | -3.13883 | 0.613957 | -5.110 | 0.000 | -4.34216 | -1.9355 |
| Hhsize | 0.011454 | 0.00273 | 4.200 | 0.000 | 0.006103 | 0.016804 |
| Specialist | -0.66555 | 0.321247 | -2.070 | 0.038 | -1.29518 | -0.03592 |
| _cons | -3.87366 | 0.649771 | -5.960 | 0.000 | -5.14719 | -2.60014 |
| self_employed_others_ | | | | | | |
| Female | -0.60458 | 0.195169 | -3.100 | 0.002 | -0.9871 | -0.22205 |
| Age | 0.019036 | 0.008682 | 2.190 | 0.028 | 0.00202 | 0.036053 |
| Rural | -1.16869 | 0.199521 | -5.860 | 0.000 | -1.55975 | -0.77764 |

| | | | | | | |
|---|----------|----------|--------|----------------------|----------|----------|
| Married | 1.205896 | 0.224626 | 5.370 | 0.000 | 0.765637 | 1.646155 |
| educ_tertiary | -1.66789 | 0.296628 | -5.620 | 0.000 | -2.24927 | -1.08651 |
| Hhsize | 0.007381 | 0.002717 | 2.720 | 0.007 | 0.002056 | 0.012705 |
| Specialist | 0.013424 | 0.235782 | 0.060 | 0.955 | -0.4487 | 0.475548 |
| _cons | -0.03434 | 0.525664 | -0.070 | 0.948 | -1.06463 | 0.995941 |
| Employees in private sector | | | | | | |
| Female | -0.96673 | 0.123088 | -7.850 | 0.000 | -1.20798 | -0.72548 |
| Age | 0.004766 | 0.007299 | 0.650 | 0.514 | -0.00954 | 0.019071 |
| Rural | -0.75264 | 0.129066 | -5.830 | 0.000 | -1.0056 | -0.49967 |
| Married | -0.26256 | 0.147185 | -1.780 | 0.074 | -0.55104 | 0.025918 |
| educ_tertiary | -0.36456 | 0.135513 | -2.690 | 0.007 | -0.63016 | -0.09896 |
| Hhsize | -0.00182 | 0.002086 | -0.870 | 0.383 | -0.00591 | 0.002271 |
| Specialist | 0.581936 | 0.137867 | 4.220 | 0.000 | 0.311722 | 0.85215 |
| _cons | 2.040741 | 0.359762 | 5.670 | 0.000 | 1.335621 | 2.745861 |
| empl_wage_public sector_(base outcome) | | | | | | |
| paid apprentice | | | | | | |
| Female | -0.06082 | 0.253555 | -0.240 | 0.810 | -0.55778 | 0.436134 |
| Age | 0.03468 | 0.010706 | 3.240 | 0.001 | 0.013697 | 0.055663 |
| Rural | 0.402461 | 0.365961 | 1.100 | 0.271 | -0.31481 | 1.119731 |
| Married | 0.873048 | 0.30523 | 2.860 | 0.004 | 0.274808 | 1.471287 |
| educ_tertiary | -0.75171 | 0.352111 | -2.130 | 0.033 | -1.44183 | -0.06158 |
| Hhsize | 0.004946 | 0.003894 | 1.270 | 0.204 | -0.00269 | 0.012577 |
| Specialist | -0.6449 | 0.413801 | -1.560 | 0.119 | -1.45593 | 0.166141 |
| _cons | -4.55739 | 0.882029 | -5.170 | 0.000 | -6.28614 | -2.82865 |
| Multinomial logistic regression | | | | Number of obs = 2198 | | |
| | | | | LR chi2(42) = 864.82 | | |
| | | | | Prob > chi2 = 0.0000 | | |
| Log likelihood = -2967.1436 | | | | Pseudo R2 = 0.1272 | | |

Source: Authors' computation from the household survey data

**Table 1.5: Multinomial Logit Model of Gender and Employment Choice in Nigeria:
Relative Risk Ratios**

| statw_47 | RRR | Std. Err. | Z | P> z | [95% Conf. | Interval] |
|------------------------------|--------|-----------|---------|--------|---------------|-----------|
| Employer | | | | | | |
| Female | 0.5757 | 0.1509 | -2.1100 | 0.0350 | 0.3445 | 0.9622 |
| Age | 1.0376 | 0.0111 | 3.4600 | 0.0010 | 1.0161 | 1.0595 |
| Rural | 0.6916 | 0.1979 | -1.2900 | 0.1980 | 0.3947 | 1.2119 |
| Married | 1.9198 | 0.5697 | 2.2000 | 0.0280 | 1.0732 | 3.4342 |
| educ_tertiary | 0.5669 | 0.1773 | -1.8100 | 0.0700 | 0.3071 | 1.0464 |
| Hhsize | 0.9995 | 0.0046 | -0.1000 | 0.9210 | 0.9906 | 1.0085 |
| Specialist | 1.0963 | 0.3392 | 0.3000 | 0.7660 | 0.5979 | 2.0103 |
| _cons | 0.0913 | 0.0676 | -3.2300 | 0.0010 | 0.0214 | 0.3899 |
| self_employed_farmer_ | | | | | | |
| Female | 0.5301 | 0.0903 | -3.7300 | 0.0000 | 0.3797 | 0.7401 |
| Age | 1.0422 | 0.0072 | 5.9500 | 0.0000 | 1.0281 | 1.0564 |
| Rural | 4.5437 | 1.5319 | 4.4900 | 0.0000 | 2.3466 | 8.7982 |
| Married | 4.2754 | 0.8696 | 7.1400 | 0.0000 | 2.8699 | 6.3695 |
| educ_tertiary | 0.1115 | 0.0392 | -6.2500 | 0.0000 | 0.0560 | 0.2219 |

| | | | | | | |
|---|--------|--------|---------|----------------------|--------|---------|
| Hhsize | 1.0144 | 0.0022 | 6.5400 | 0.0000 | 1.0101 | 1.0187 |
| Specialist | 0.4208 | 0.1125 | -3.2400 | 0.0010 | 0.2492 | 0.7106 |
| _cons | 0.0044 | 0.0033 | -7.2700 | 0.0000 | 0.0010 | 0.0190 |
| self_employed_trader_ | | | | | | |
| Female | 1.6831 | 0.3379 | 2.5900 | 0.0100 | 1.1355 | 2.4947 |
| Age | 1.0284 | 0.0087 | 3.3000 | 0.0010 | 1.0115 | 1.0457 |
| Rural | 0.7557 | 0.1945 | -1.0900 | 0.2760 | 0.4564 | 1.2515 |
| Married | 4.9102 | 1.2753 | 6.1300 | 0.0000 | 2.9514 | 8.1690 |
| educ_tertiary | 0.0433 | 0.0266 | -5.1100 | 0.0000 | 0.0130 | 0.1444 |
| Hhsize | 1.0115 | 0.0028 | 4.2000 | 0.0000 | 1.0061 | 1.0169 |
| Specialist | 0.5140 | 0.1651 | -2.0700 | 0.0380 | 0.2738 | 0.9647 |
| _cons | 0.0208 | 0.0135 | -5.9600 | 0.0000 | 0.0058 | 0.0743 |
| self_employed_others_ | | | | | | |
| Female | 0.5463 | 0.1066 | -3.1000 | 0.0020 | 0.3727 | 0.8009 |
| Age | 1.0192 | 0.0088 | 2.1900 | 0.0280 | 1.0020 | 1.0367 |
| Rural | 0.3108 | 0.0620 | -5.8600 | 0.0000 | 0.2102 | 0.4595 |
| Married | 3.3398 | 0.7502 | 5.3700 | 0.0000 | 2.1504 | 5.1870 |
| educ_tertiary | 0.1886 | 0.0560 | -5.6200 | 0.0000 | 0.1055 | 0.3374 |
| Hhsize | 1.0074 | 0.0027 | 2.7200 | 0.0070 | 1.0021 | 1.0128 |
| Specialist | 1.0135 | 0.2390 | 0.0600 | 0.9550 | 0.6385 | 1.6089 |
| _cons | 0.9662 | 0.5079 | -0.0700 | 0.9480 | 0.3449 | 2.7073 |
| employee_w_s_private_ | | | | | | |
| Female | 0.3803 | 0.0468 | -7.8500 | 0.0000 | 0.2988 | 0.4841 |
| Age | 1.0048 | 0.0073 | 0.6500 | 0.5140 | 0.9905 | 1.0193 |
| Rural | 0.4711 | 0.0608 | -5.8300 | 0.0000 | 0.3658 | 0.6067 |
| Married | 0.7691 | 0.1132 | -1.7800 | 0.0740 | 0.5764 | 1.0263 |
| educ_tertiary | 0.6945 | 0.0941 | -2.6900 | 0.0070 | 0.5325 | 0.9058 |
| Hhsize | 0.9982 | 0.0021 | -0.8700 | 0.3830 | 0.9941 | 1.0023 |
| Specialist | 1.7895 | 0.2467 | 4.2200 | 0.0000 | 1.3658 | 2.3447 |
| _cons | 7.6963 | 2.7688 | 5.6700 | 0.0000 | 3.8024 | 15.5780 |
| empl_wage_public_sector_(base outcome) | | | | | | |
| paid_apprentice | | | | | | |
| Female | 0.9410 | 0.2386 | -0.2400 | 0.8100 | 0.5725 | 1.5467 |
| Age | 1.0353 | 0.0111 | 3.2400 | 0.0010 | 1.0138 | 1.0572 |
| Rural | 1.4955 | 0.5473 | 1.1000 | 0.2710 | 0.7299 | 3.0640 |
| Married | 2.3942 | 0.7308 | 2.8600 | 0.0040 | 1.3163 | 4.3548 |
| educ_tertiary | 0.4716 | 0.1660 | -2.1300 | 0.0330 | 0.2365 | 0.9403 |
| Hhsize | 1.0050 | 0.0039 | 1.2700 | 0.2040 | 0.9973 | 1.0127 |
| Specialist | 0.5247 | 0.2171 | -1.5600 | 0.1190 | 0.2332 | 1.1807 |
| _cons | 0.0105 | 0.0093 | -5.1700 | 0.0000 | 0.0019 | 0.0591 |
| | | | | Number of obs = 2198 | | |
| | | | | LR chi2(42) = 864.82 | | |
| | | | | Prob > chi2 = 0.0000 | | |
| Log likelihood = -2967.1436 | | | | Pseudo R2 = 0.1272 | | |

Source: Author's computation from the household survey data.

SUMMARY OF FINDINGS, POLICY RECOMMENDATIONS AND CONCLUSION

Summary of Findings.

This study was designed to investigate gender and occupational choice in Nigeria. We employed the Nigeria Living Standards survey particularly the sections of the survey that have labour market information and individual characteristics to estimate multinomial logit model of occupational choice. The focus of the estimations was gender influence on occupational choice using various classification of occupation found in the data. These classifications are: employer, self-employed farmer, self-employed trader, self-employed others, employee wages sector private, employee wages sector public and paid apprentice. The covariates used in the righthand side of the multinomial logit model were gender, age of the individual, rural/urban, marital status, education, household size and specialist. The descriptive statistics show that most people are interested in working with the public sector wage or salary jobs. That is, 939 of 2202 employees captured in the data which is about 42.64 percent prefer to work in the public sector, while few would prefer to be employers of labour and to work as paid apprentice and about 25.9 percent would prefer to work in the private sector. The descriptive statistics also show that more females would like to work as self-employed traders and followed by employment in public sector wage employment. Women prefer self-employed trading because it is not only most common type of employment for women in Nigeria but it has also become customary.

The model results show that: (1) females are less likely than males to prefer a choice of employment as employer to choice of wage employment in the public sector; (2) females are less likely than males to prefer a choice of employment as self-employed farmer to choice of wage employment in the public sector; (3) females are less likely than males to prefer a choice of employment as self-employed trader to choice of wage employment in the public sector; and (4) females are less likely than males to prefer a choice of other forms of self-employed to choice of wage employment in the public sector. The summary of the findings is that women prefer wage employment in the public sector in Nigeria to any other sector.

Policy Recommendations

These findings have important implications for policy design especially on how to change the incentive structure in other sectors of the economy to make them attractive to women and hence change their perception that working in the public sector is the most secured type of occupation in Nigeria. The following policy recommendations would help to achieve the aforementioned.

The policy makers at all levels should look at the revealed preference of women for working in the public sector in designing labour market policies. It could be that these women would have higher productivity in the public sector or they have preference for the public sector because of other reasons. Therefore, it is important to rationalize employment in some aspects of the public sector make them gender bias in favour of

women. At the same, it is important to monitor their productivity in the public sector in terms of absenteeism, in relation to men's output and other factors in order to ensure that they would not see working with the wage public sector as a job that gives women space to carry on with family and domestic activities. Agriculture should be made attractive to people who may want to use it as occupation by the government, by supporting farmers through financial and other forms of assistance. Making agriculture attractive implies helping those in farming, and other forms of agricultural activity to produce higher output and at the same time find market for their produce. Soft loans to farmers before the beginning of farming season, pest control, sharing knowledge of high breed crops, making inputs such as fertilizers, pesticides, farm implements, animal feeds, and the like available and affordable to those who chose agriculture as a way of life can raise agricultural productivity and income. Once the income level begins to increase in this occupation more people especially women would find it attractive.

Conclusion

This study looked at how gender affects occupational choice utilizing several classifications of occupation available in the data to examine the gender and occupational choice imbalance in the Nigerian labor market and the source of such imbalances. According to the study's findings, women in Nigeria prefer wage employment in the public sector over that in all other industries. There is certainly an opportunity for more study to be done in this field, particularly if panel data start to appear in Nigeria or any other nation where the proportion of women working in a given occupation in two distinct states might be compared. This will help to clarify the situation in Nigeria and any other nation where similar statistics are available and policymakers may apply the lessons.

References

- 1) Adeosun, O. T., & Owolabi, K. E. (2021). Gender inequality: determinants and outcomes in Nigeria. *Journal of Business and Socio-economic Development*, 1(2), 165-181.
- 2) Aderemi, T., & Alley, I. (2019). Gender pay gap in the workplace: the case of public and private sectors in Nigeria. *Journal of Social and Economic Development*, 21(2), 370-391.
- 3) Aduku, E. B., Anyanwu, O. C., & Edeme, R. K. (2022). Gender Gap, Intensive Growth and Economic Welfare in sub-Saharan African Countries. In *Environmental Sustainability, Growth Trajectory and Gender: Contemporary issues of Developing Economies* (pp. 153-165). Emerald Publishing Limited
- 4) Akhtar, R., Masud, M. M., Jafrin, N., & Shahabudin, S. M. (2023). Economic growth, gender inequality, openness of trade, and female labour force participation. A nonlinear ARDL approach. *Economic Change and Restructuring*, 56(3), 1725-1752
- 5) Akinlolu, M. (2023) Gender stereotypes and career choices: a cross-sectional study on a group of South African students in construction programmes. *Acta Structilia*, 29(2)83–115.
- 6) Albanesi, S and Jiyeon K. (2021). Effects of the COVID-19 Recession on the US Labor Market: Occupation, Family, and Gender. *Journal of Economic Perspectives*, 35 (3): 3-24
- 7) Angwaomadoko, E. (2023) Influence of Gender on Career Choice and Academic Performance. *International journal of Education, Learning and Development*, 11(5), 1-14.

- 8) Ayodele, T. O. (2019). Career choice of real estate students in Nigeria: The explaining influences in comparative perspective. *Property Management*, 37(1), 154-176.
- 9) Casale, D and Posel, D. (2002). The continued feminisation of the labour force in South Africa: an analysis of recent data and trends. *South African Journal of Economics*. 70 (1), 156 – 182
- 10) Chafe, W. (1972). *The American women: her changing social economic and political roles, 1920-1970*. New York: Oxford University press
- 11) Combarrous, F (1999). La mise en acuvre d'un modèle logistique multinomial emboité dans i'analyse de la participation au marché du travail. Document de travail No 39, centre d'economie du development, université Montesquieu-Bordeaux IV
- 12) Cotter, D., Joan, M and Reeve, V. (2004). *Gender inequality at work*, New York: Russel sage foundation and population reference Bureau.
- 13) Dabalén, O., Oni, Band Adekola, O (2000). *Labour Market Prospects of University Graduates in Nigeria*. Abuja: The World Bank.
- 14) Edwards, K and Quinter, M (2011). Factors influencing students career choices among secondary school students in Kisumu municipality; *Kenya. Journal of emerging trends in educational research and policy studies*, 2,(2)81-87.
- 15) El-Aynaoni, J (1996). "Une investigation du lien pauvreté-marché du travail dans le contexte dumaroc". *Revne region et development*, 3.2-35
- 16) Enfield, S. (2019). *Gender Roles and Inequalities in the Nigerian Labour Market*. K4D Helpdesk Report. Brighton, UK: Institute of Development Studies.
- 17) Erosa, A., Fuster, L., Kambourov, G., & Rogerson, R. (2022). Hours, occupations, and gender differences in labor market outcomes. *American Economic Journal: Macroeconomics*, 14(3), 543-590.
- 18) Folke, O., & Rickne, J. (2022). Sexual harassment and gender inequality in the labor market. *The Quarterly Journal of Economics*, 137(4), 2163-2212.
- 19) Gelles, R and Levine, A. (1990). *Sociology: An introduction*. New York: McGraw-Hill.
- 20) Gesinde, S. (2020). Equipping a student with career choice decision-making skills. *Nigerian Journal of counseling and Development*. (1)50-58.
- 21) Haasler, S. R. (2014). The impact of learning on women's labour market transitions. *Research in Comparative and International Education*, 9(3), 354-369.
- 22) Hesse-Biber, S and Carger, G (2000). *Women working in America: Split dreams*. New York.
- 23) ILO, (2020). *International labour organization concept notes on gender discrimination*.
- 24) ILOSTAT: *Employment to Population ratio - ILO Modelled estimates*, (2018)
- 25) Kuhn, A., & Wolter, S. C. (2022). Things versus people: Gender differences in vocational interests and in occupational preferences. *Journal of economic behavior & organization*, 203, 210-234.
- 26) Kurantin, N., & Osei-Hwedie, B. Z. (2023). Labour Market Segmentation and Income Inequality in Regional Ghanaian Mining Sector. In *Inclusive Developments Through Socio-economic Indicators: New Theoretical and empirical Insights*, 231-243. Emerald Publishing Limited.
- 27) Lim, Lin Lean. (2002). *Female labour force participation*. Background paper for the United
- 28) Nations Population Division, Expert Group Meeting on Completing the Fertility transition, March. www.un.org/esa/population/publications/completingfertility/completingfertility.htm.

- 29) Lordan, G., & Pischke, J. S. (2022). Does Rosie like riveting? Male and female occupational choices. *Economica*, 89(353), 110-130.
- 30) National Bureau of Statistics (NBS) (2020). National Bureau of Statistics. Nigerian Statistical Fact Sheets on Economic and Social Development.
- 31) Oladele, B. (1991) Theories of career guidance, its implications and importance to the total development of Nigerian child education today. *Quarterly journal of FME*. 5 (1)1-16.
- 32) Olarewaju, T. I., Mickiewicz, T., & Tamvada, J. P. (2019). The returns to occupations: The role of minimum wage and gender in Nigeria. *World Development Perspectives*, 13, 75-86.
- 33) Olayinka, M.O. (1993) Guidance and Counselling for Nigerian Schools. Lagos: Lantern Books.
- 34) Organisation for Economic Co-operation and Development; OECD. (2016). Labour force
- 35) Participation rate (indicator). Doi: 10.1787/89801325-en.
- 36) Ostergaard, L (1992). Gender and development: A practical guide. London: Routledge
- 37) Reichelt, M., Makovi, K., & Sargsyan, A. (2021). The impact of COVID-19 on gender inequality in the labor market and gender-role attitudes. *European Societies*, 23(sup1), S228-S245.
- 38) Senf, J., Campos-outcalt, D and Kutob, R (2003). Factors related to the choice of family medicine, a reassessment and literature review. *J.Am.Board, fam.med.* 16(6)502-512
- 39) Shanika, W. R. M. S. (2022). Impact of Perceived Gender Ideology and Career Choice on Career Advancement of woman in the Legal Profession of Sri Lanka.
- 40) Sharf, R. S. (2016). *Applying career development theory to counseling*. Cengage Learning.
- 41) Standing, G. (2000). Global Feminization through Flexible Labour: A Theme Revisited. *World development*, 27(3), 583-602
- 42) Stockard J and McGee J (1990). Children's occupational preferences: The influence of and perception of transition
March.www.un.org/esa/population/publications/completingfertility/completingfertility.htm)
- 43) Triventi, M (2011). The gender wage gap among recent European graduates. Almalaurea working paper no.32.
- 44) Uwajumogu, N., Nwokoye, E., Ogbonna, I., & Okoro, M. (2019). Response of economic diversification to gender inequality: Evidence from Nigeria. *International Journal of Social Sciences and Economic Review*, 1(2), 61-72.
- 45) Uyar, A., Gungormus, A and Kuzey, C. (2011). Factors affecting students career choice in accounting. The case of a Turkish University. *Ame.J.Bus.Educ.*4(10)29-38.
- 46) Wasserman, M. (2023). Hours constraints, occupational choice, and gender: Evidence from medical residents. *The Review of Economic Studies*, 90(3), 1535-1568.
- 47) World Bank. (2015) More and more productive, jobs for Nigeria: a profile of work and workers. World Bank group. <http://documents.worldbank.org/curated/en/650371467987906739/More-and-more-productive-jobs-for-nigeria-a-profile-of-work-and-workers>.