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Danışman:

Dr. Öğr. Üyesi Görkem BAHTIYAR

BURSA 2021

ÖZET

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TÜRKÇE TEZ BAŞLIĞI

EĞİTİMİ SÜRDÜRME VE İŞGÜCÜNE KATILMA: NİJERYA'DA YENİ MEZUNLARIN ÇALIŞMA VE EĞİTİMİ SÜRDÜRME KARARLARI ÜZERİNE

Lisansüstü öğrenciler Nijerya'daki işgücü için son derece önemlidir. Her yıl, bu mezunların büyük bir yüzdesi; mezun olduktan hemen sonra işgücüne katılmaları veya işgücü piyasasına girişlerini ertelemeleri ve bunun yerine daha ileri çalışmalar yapmaları hakkında karar verme sürecine katılmaktadır. Beklenti, daha iyi eğitim ve öğretim ile kazanç potansiyellerinin yükseltilmesidir. Benzer bir beklenti istihdam ve işten ayrılma sonrası sağlanan faydalar için de geçerlidir. Nijerya'daki yeni mezunlardan oluşan bir havuzdan birincil bir veri seti kullanan bu çalışma, ülkedeki mezunların iş-boş zaman seçimini analiz etmek için *probit* ve *logit* regresyon modellerini kullanmaktadır. Araştırma sonuçları, cinsiyet, eğitim, medeni durum, mesleki eğitim ve hane reislerinin yaşının çalışma alanındaki iş – boş zaman kararlarının önemli belirleyicileri olduğunu göstermektedir.

Anahtar Kelimeler: Mezunlar, İşgücü, İşgücü Piyasası, İleri Eğitimi, İş-Boş Zaman Tercih

ABSTRACT

Name and Surname	**: Adebayo Abdulateef ODEYEMI**
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THESIS ENGLISH TITLE

Further Studies and Labour Force Participation: An Analysis of Fresh Graduates Work-Non Work Preference in Nigeria.

Graduate students are highly important to the labour force in Nigeria. Every year, a large percentage of these graduates engage in the decision-making process; whether to participate in the labour force immediately after their graduation or delay their entrance into the labour market and instead pursue further studies. The expectation is that their earning potential will be raised with improved educational attainment and training. A similar expectation also holds for employment and post-employment benefits. Using a primary data set from a pool of recent graduates in Nigeria, this study employs *probit* and *logit* regression models to analyse the labour-Leisure choice of graduates in the country. The study results show that gender, education, marital status, vocational training and the age of household heads are significant determinants of labour – leisure decisions in the study area.

Keywords: Graduates, Labour Force, Labour Market, Further Studies, Labour-Leisure Choice

ÖNSÖZ

Nijerya'nın nüfusu Afrika'nın en kalabalık, dünyanın yedinci ülkesi olmasının yanı sıra oldukça gençtir; ülke nüfusunun yaklaşık yüzde yetmişi yirmi beş yaşın altındadır. Nijerya'da eğitimli gençlerin sayısı artıyor; bu, ülkedeki hem eğitim hem de ekonomik politika oluşturma çevrelerinde ülkenin işgücündeki bu genç nüfusun niceliği ve kalitesine giderek daha fazla odaklanmaya neden oldu. Bu çalışma, genç nüfusun bir bölümünün – yeni mezunların – işgücüne katılımına ilişkin karar alma sürecine odaklanmaktadır.

Danışmanım - Dr. Görkem BAHTIYAR'ın bu çalışmanın tamamlanmasına özverili katkıları ve daha da önemlisi, çalışmanın erken durdurulabileceği zamanlarda zamanında müdahaleleri için çok teşekkür ederim. Ayrıca bölümdeki ve sosyal bilimler enstitüsünde görev yapan tüm öğretim üyelerine, diğer personele teşekkür ederim.

Aileme, tüm program boyunca gösterdiğiniz güzel sabrınız, desteğiniz ve sürekli teşvikiniz için hepinize çok şey borçluyum. Bu çalışmanın tamamlanması, sayısız şekillerde paha biçilmez katkılarınız ile sağlanmıştır.

Son olarak sınıf arkadaşlarıma, okuldaki ve yurttaki arkadaşlarıma ve bu çalışmanın gerçekleşmesinde emeği geçen herkese teşekkür ederim.

Adebayo Abdulateef ODEYEMI

2021

FOREWORD

In addition to being the most populous country in Africa and the seventh in the world, Nigeria's population is highly youthful; about seventy per cent of the country's population is under the age of twenty-five. The number of educated youth in Nigeria is on the rise; this has prompted a growing focus on the quantity and quality of this youthful population in the country's labour force both in educational and economic policy-making circles in the country. This study focuses on the decision-making regarding entrance of a section of the youth population – graduates – into the labour force.

I profoundly appreciate my supervisor - Dr. Görkem BAHTIYAR for his selfless contributions to the completion of this study and more importantly, his timely interventions at times that the study could have been put to premature halt. Also, I appreciate all the lecturers, other personnel in the department and at the social science post-graduate institute.

To my family, I am highly indebted to you all for your beautiful patience, support and continuous encouragement through the entirety of the programme. The completion of this study has been achieved with your priceless contributions in uncountable ways.

Lastly, I thank my classmates, friends at school and in the dormitory, and everyone that has contributed to realisation of this study.

Adebayo Abdulateef ODEYEMI

2021

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ABBREVIATIONS/ACRONYMS

BLS	The Bureau of Labour Statistics
FLFP	Female Labour Force Participation
FLFPR	Female Labour Force Participation Rate
HH	House-Hold
HHH	House-Hold Head
HILDA	Household, Income and Labour Dynamics in Australia
ICLS	International Conference of Labour Statisticians
ILO	International Labour Organisation
LFP	Labour Force Participation
LFPR	Labour Force Participation Rate
MLFPR	Male Labour Force Participation Rate
NYSC	National Youth Service Corps
OECD	Organisation for Economic Co-operation and Development
RGDP	Real Gross Domestic Product
VDAB	Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding (The Public Employment Service of Flanders)

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INTRODUCTION

Labour plays a significant role in the process of successful production of any economy; it is required for the promotion and enhancement of an economy through its input towards production in the economy and more importantly, through its efficiency as a factor in the process of production within the economy. Labour is a measure of the amount of human resource, it is supplied by households – who operate in the circle of production as labour suppliers and also as consumers of final outcome of production – goods and services.

Similar to the diversity experienced in various sectors of the economy, labour is diverse with respect to quantity and quality. Labour may be diverse in terms of skills and quality due to different factors that make up each labour supplied, such as quality based on years of training, geographical and even socio-cultural characteristics of the labour.

Labour force participation trends across the world have been mixed and similarly, the projections have been of varying directions and/or sizes. The projection for the next decade by the International Labour Organisation (ILO, 2018) is that collectively, the global labour force participation rate would continue to be on a decline – a trend that commenced since early 1990s – with an attendant decline also expected for the population of people eligible to be in the working-age bracket. The decline in the bracket was explained to be caused, largely, by decline in labour force participation in the Pacific and Asia; such as been the case for the regions since the 1990s with no expectation for positive change, but rather, a decline further below the global average is

anticipated in the years ahead. Africa – where Nigeria is situated – remains the only region where labour force participation is expected to rise in the years ahead and consequently; the region is deemed as the major region that would slow down the decline rate for the global labour force participation (ILO, 2018).

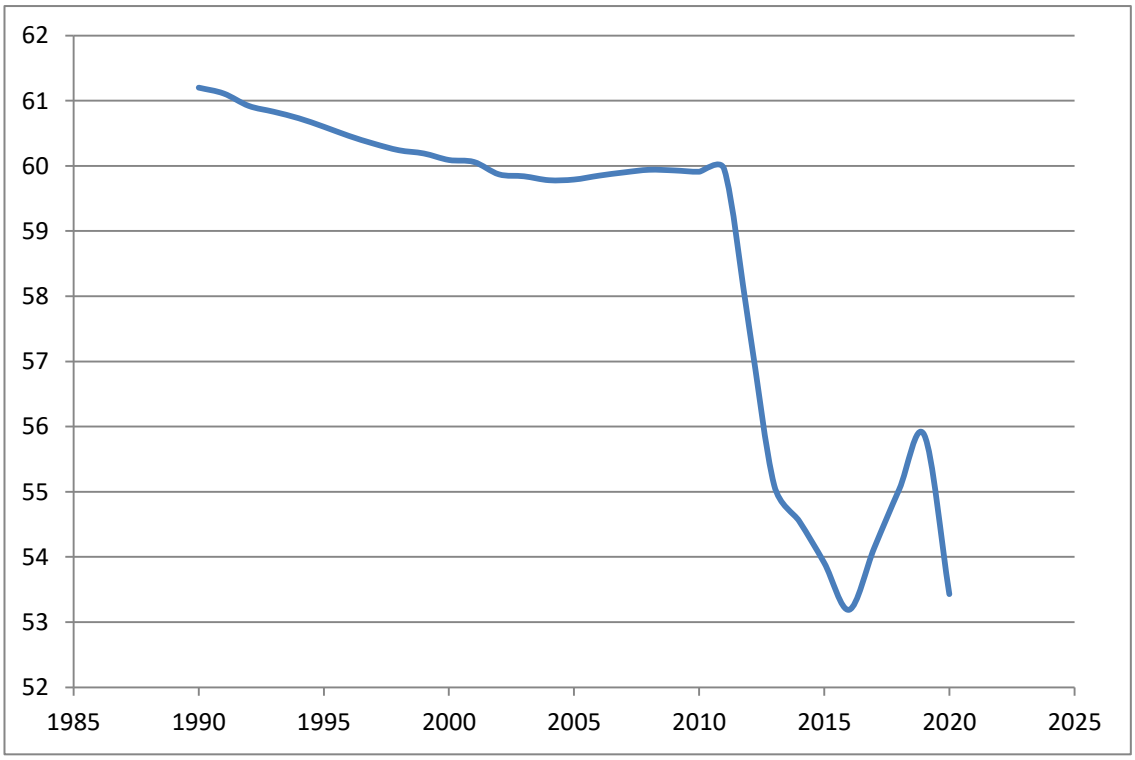

Figure 1: Labour force participation rate, total (% of total population age 15 +) for Nigeria – (ILO, 2021)

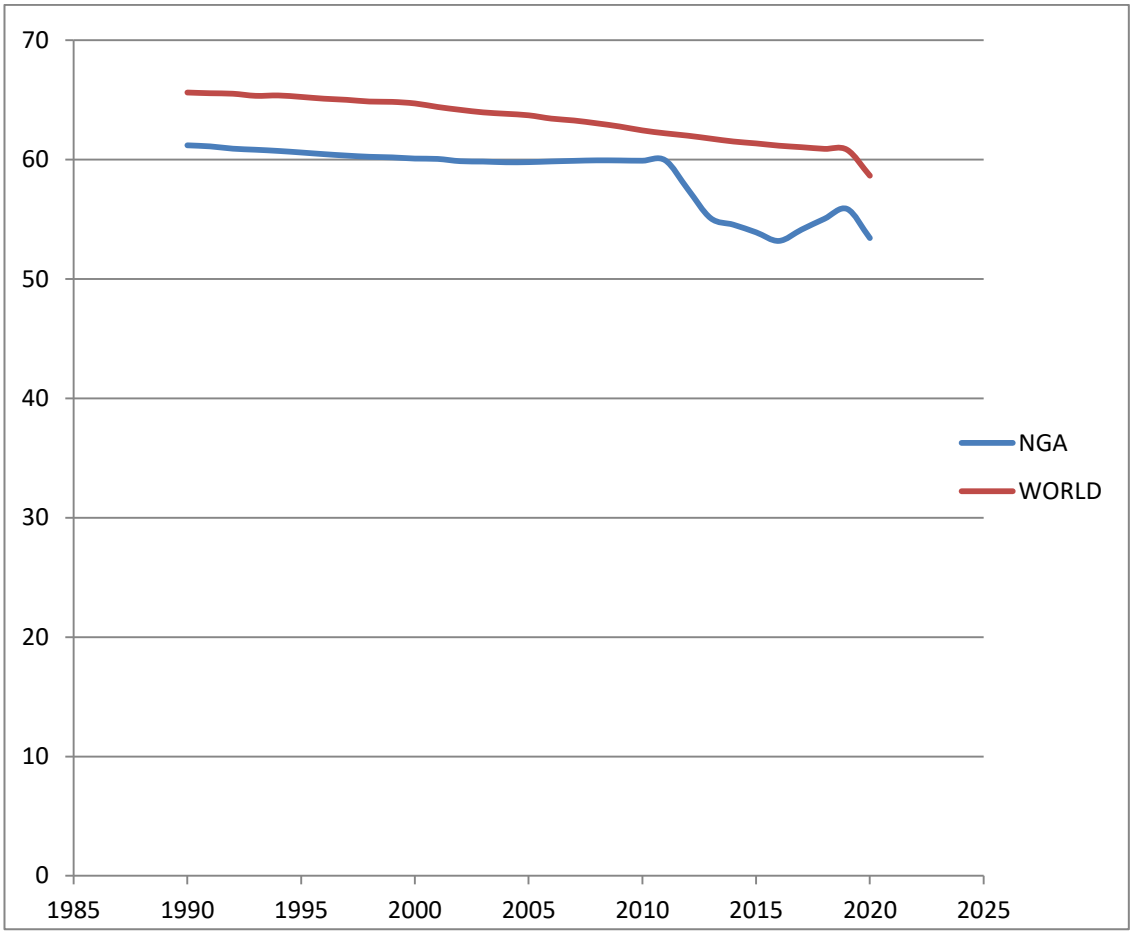

Figure 2: Labour force participation rate, total (% of total population age 15 +) The World and Nigeria – (ILO, 2021)

Nigeria has been experiencing a declining labour force participation rate as the graph indicates; this conforms to global projections. The decline was occurring at a slow pace in the 1990s through the early 2000s; but there was a steep fall between 2010 and 2015. The trend is, however, not the same across the gender; from 2015, the male labour force participation rate has been on the rise, while that of female is declining just like the total labour force participation rate.

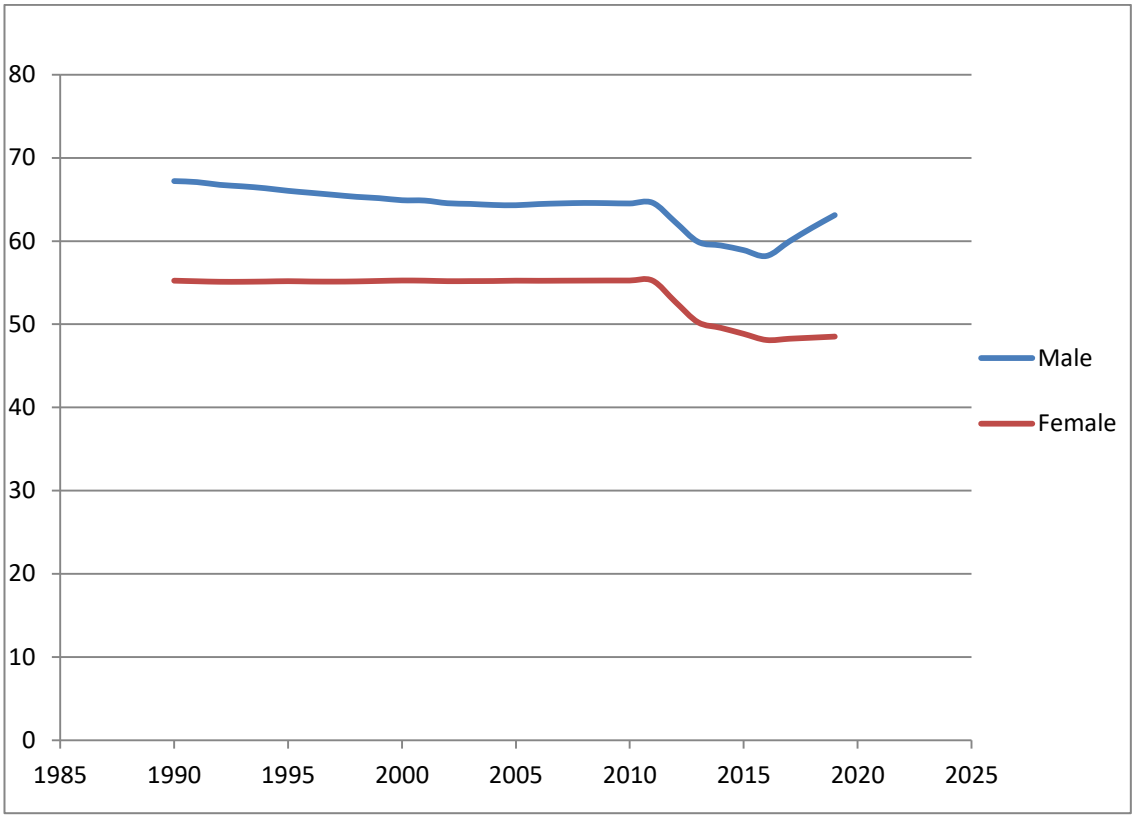

Figure 3: Labour force participation rate, male & female for Nigeria (% of total population age 15 +) – (ILO, 2021)

The international labour organisation projections further indicated, based on regional distributions, that Africa's contribution to global labour force, currently around 10 per cent would continue to rise, and a similar direction of change is also expected for Americas and Arab states. However, a decline is projected for the region with the highest proportion of global labour force – Asia and the Pacific, while Europe and Central Asia are also expected to continually witness a decline in their share of global labour force.

In modern day economy, graduates constitute a large percentage of the labour force and are continually expected to occupy more significantly important roles and to constitute a sizeable share in the workforce of the economy. This, obviously, is a factor

for the continuous rise in school enrolment for tertiary education across the world. Projections and forecasts are that this will continue; improved production techniques and technological advancements require that an economy requires highly skilled labour for higher productivity. Figure 3 below shows the continuous rise. In figure 4, the situation for Nigeria is quite lesser compare to the world and also the trend is not fully observed as the date are unavailable, yet, the enrolment continues to increase as well, for the country.

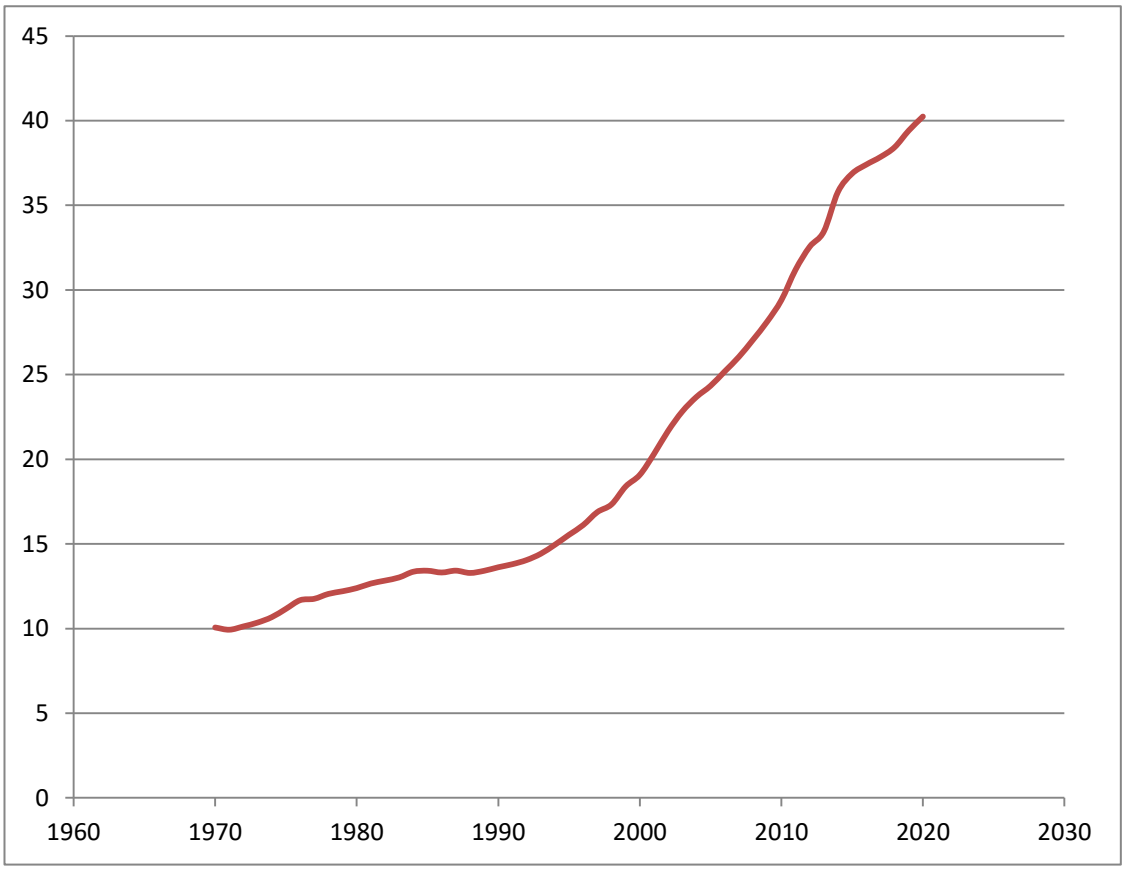

Figure 4: Global School Enrolment, Tertiary (% gross) – (World Bank, 2021)

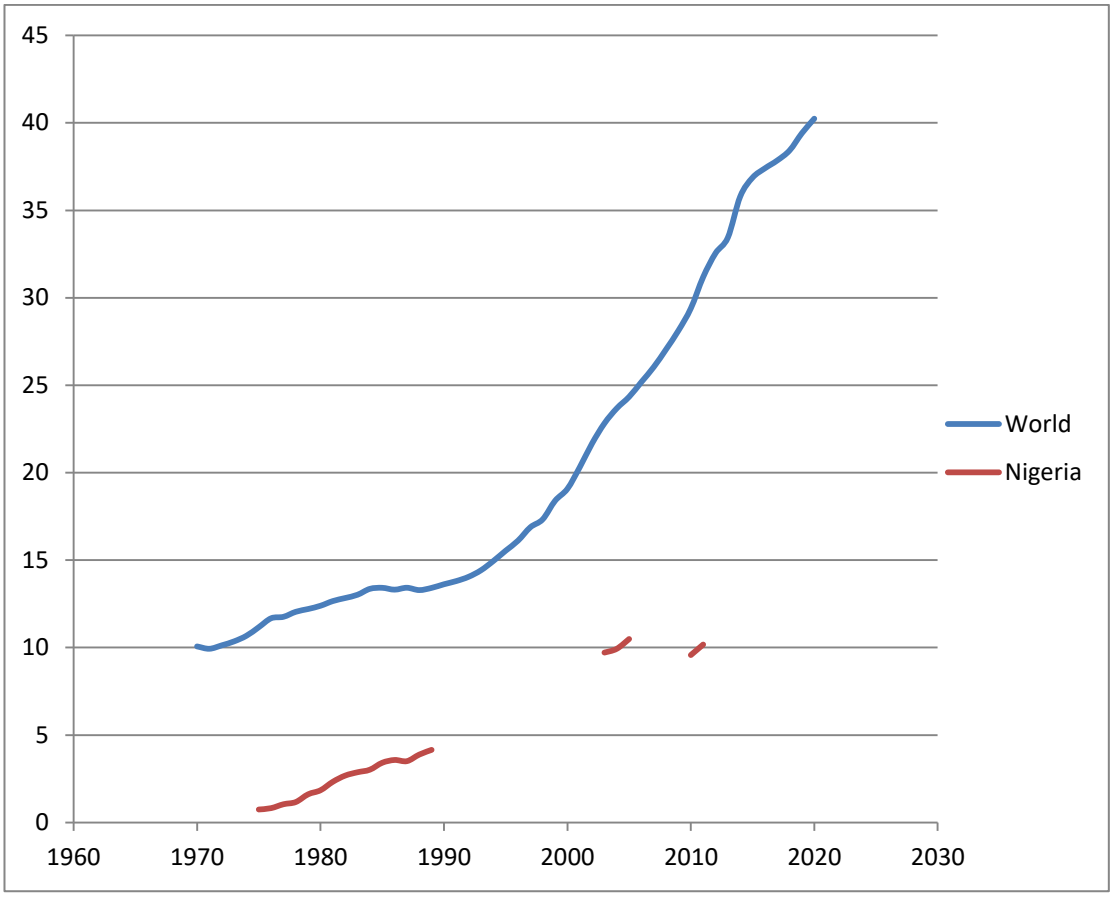

Figure 5: Global and Nigeria School Enrollment, Tertiary (% gross) – (World Bank, 2021)

According to ILO projections (2018) employment by educational level in most developed and European economies is portrayed; the OECD average indicated that close to 60 per cent of pre-secondary education school certificate holders find employment in all the countries. Iceland has the highest percentage with more than 75 per cent of this category of labour force worker getting engaged in the force, the percentage is 50 for Turkey, while South Africa – the only African country in the distribution has about 43 per cent of pre-secondary education certificate holders able to obtain employment. Developed countries are more likely to have a higher percentage of their population engaged, irrespective of their level of education.

The projections also point out that an increase in employment level for upper secondary education certificate holders is evident. Still ranked with the highest percentage, Iceland has about 85 per cent of those with upper secondary qualification employed; an indication that shows that improved skills, education and training is more likely to improve the chances of a person getting employed. This is the same for all countries and also, the OECD average percentage for this category of labour is pulled up; compared to approximately 60 per cent in below secondary level, the percentage is over 75 per cent for upper secondary, non-tertiary certificate holders. The situation is in the same direction for Turkey – from 50 per cent to 60 per cent; South Africa – 43 per cent to 58 per cent and likewise other countries such as Brazil, Russia, Germany, New Zealand, Korea, South Arabia etc. moving upward to higher percentage of employment for higher educational attainment.

Data from the projections also corroborates the opinion that higher percentage of employment is associated with higher qualification. In the graph, over 90 per cent of people with tertiary qualification are employed in Iceland, about 90 per cent for Germany, over 80 per cent for Chile, Russia, Brazil and South Africa – same with the OECD average, while the percentage is above 70 for countries like Korea, Greece, Saudi Arabia and Turkey. For all the countries, the percentage gets higher with the level of education. Thus, education becomes a highly important tool in improving the quality of labour. Furthermore, labour itself benefits immensely with improvement induced through education – which is often regarded as investment in human capital. From the associated advantages of such investment are improved probability of employment, higher remuneration – which is a direct rise in the opportunity cost of leisure – and

higher post-employment benefits such as better pension contribution and retirement plan.

In an enquiry into the relationship between income, population growth and saving, Mankiw et al. (1992) augmented the Solow model to validate the importance of human capital with emphasis on human-capital accumulation. One of the reasons for this was that human-capital accumulation, irrespective of its size or level, translates into higher income level. Also, it was further established that human-capital accumulation is correlated with savings and population growth rates and in that wise, it affects economic outcomes significantly. Similar outcomes from others studies on human-capital strengthens opinion across fields that improvement in the quality of labour – often through higher education – are directly connected to outcomes in the economy, and in that wise, such improvement correlates with economic growth and development and even translates into transfer of improved production processes and technologies beyond an economy.

As these studies have continued to highlight the importance of the quality of labour supplied in the economy; such labour requires skills that come from years of education, being a graduate remains one of the most reliable means of attaining such required level of labour quality. In many of the developed countries, the percentage of graduates in the labour force is more than half of the total work force[1]. For example, the OECD (2017) while admitting that even though transversal skills (such as literacy, numeracy, knowledge of analytics and logic), social and emotional skills might be difficult to measure, these skills on the average, are better found or observed with

[1] See World Employment and Social Outlook 2017, 2018

graduates of higher education in many of the OECD countries. This is evident in graduates' earning premiums and as previously observed, their employment rates compared to those with lesser education are higher.

In his study of the connection between education and employment, Harvey (2000) observed that there is a continuous rise in the demand for education aimed towards direct contribution to economic growth and development. This, he opined, consequently fuelled the need for higher education, since the 1980s, to impact economic outcomes significantly and by extension, become and maintain an integral role in the economy. Furthermore, education is seen not only as a driver for the improved labour force, but also as an essential component for the realisation of any economy's objective towards attaining global competitiveness. Thus, job requirements are focusing more on training and skills that are, in most cases, known with labour with high level of educational attainment; graduates of higher education at least.

These graduates have been placed on different strata – on the basis of their quality - requiring further investment in terms of training and education to determine their likely tier in the labour force. As such, graduates upon graduation from school, given limited number of hours at their disposal, are faced with the choice of allocating their time between work related activities and non-work-related activities. This is hinged on educational requirement for the stratum that they desire to be in the labour force. Belfield et al. (2018) in their study of labour market returns owed to the type of degrees observed variations in the employment and earning outcomes for students on the basis of institutions attended and also chosen subject or discipline. These variations are said to occur within an institution and across different institutions.

The labour force is the totality of the number of both employed and unemployed persons in the labour market. It is the sum of all those who have fulfilled the conditions of being included in the workforce; they may be employed (already engaged) or unemployed but willing and in continuous search to be engaged. While it represents the pool for persons capable of working (ICLS, 2013), Labour Force Participation (LFP) on the other hand, measures the size of a country's working age population that are capable, actively available and willing to join the pool of people for work. LFP gives an estimate of the percentage of labour supply that is readily available to engage in the production process (ILO, 2017). In measuring the Labour Force Participation Rate, both the rates of employment and unemployment are considered. The rate of employment refers to the number of persons in the labour force who fall under the categories of paid employment or self-employment, during a specified period of time, while the rate of unemployment refers to all persons in the labour force, either as job seekers or currently available for work (under paid employment or self-employment) but without one, during a specified period of time (ICLS, 2013).

From a macroeconomic outlook, households are the suppliers of labour to the economy and this supply is the totality of the length of time (in hours) that individuals are willing to work at a particular wage rate. The more an individual expends his time on work, the higher the income he is likely to earn and consequently reducing the number of hours available to him for leisure. There are a variety of factors that determine the supply of labour and/or labour participation in the economy. Putting this into perspective, a typical graduate is faced with the problem of choice between the two choices. From the pool of graduates that become eligible to participate in the labour force are those who opt to seek jobs that would immediately initiate and accelerate their

career path and growth, while a group of others opt to expend their time on furthering their education or attaining more skills. The expectation is, in fact, that the less-educated a person is, the higher his chances of being unemployed. Conversely, a more-educated person is expected to have higher chances of being engaged in high paying jobs with higher reputation and job benefits. This is because employers prefer to hire highly educated persons to fill job positions that are previously occupied by lower-educated persons. This expectation appears true for the Nigerian labour force.

In Nigerian tertiary institutions today, quite a number of graduates are observed enrolling for further studies, in order to boost their chances of getting better paid jobs or simply for job promotion purposes. Musibau & Babatunde (2018) found that a sizeable amount of Nigerians demand for higher education abroad. They observed that the percentage of such category of students continue to rise and suggested that the quality of education is one of the factors that influence the students' decision to pursue further studies abroad. In a way, further studies prepare students holistically for the challenges of the labour force and set them apart from others (Braskamp, 2009). Some regions across the world even introduce educational programmes – such as exchange programmes to cater for this. The effect of such programmes is that they foster interaction of students and classroom diversity to the extent that students' intercultural competencies are upgrade and also, students are able to contribute in areas such as trade and socio-economic relations between countries (Atalar, 2020).

A report by Machin & McNally (2007) explained that in recent times, the demand for higher education has been on the rise in several countries of the world which in turn affects the labour markets and employers' demand for highly-educated

labour. This is premised on the widely believed assumption that higher level of education betters the lives of individuals and the society at large, in the form of higher wages and better working conditions for the individual, and social benefits like improved well-being for the society. However, as more graduates enter the job market, questions relating to over-supply of graduates are also on the rise. Other things being equal, an increase in the supply of labour after a situation whereby the demand for and supply of labour are already at equilibrium, will lead to a reduction in the wage rates owed to employers being provided with more similar choices to pick from.

The workings of the demand for and supply of labour stipulates the wage rate. However, given situations that warrant employers demanding more labour after an initial equilibrium have been reached, there will be a rise in the wage rates. One of the major reasons attributed to this is the increasing zeal of graduates to further their education and better their skills. Quite a high number of countries continue to experience increasing rates in higher education leading to increasing wage rates. Spain, New Zealand (two countries experiencing particularly great increase in higher education) and Korea (having its wage premium decreasing between 1974 and 1990) are exceptions as wage rates in these countries are not increasing despite the increasing demand for higher education. This is due to the large supply of graduates into the labour market (Machin & McNally, 2007).

In many countries, graduates' chances of getting jobs are higher than that of the less educated class. In the same vein, graduates with relatively lower performances tend to go through harder times to get jobs after going through higher education, while some even find it difficult to get jobs that appropriately match their area of expertise and/or

qualifications. Also, there seems to be shortages of personnel in some sectors of the economy as a result of mismatch of labour and available jobs. In this case, two terms - 'over-education and 'under-education' comes into play here. An individual in possession of a qualification higher than what is required for his job is said to be over-educated, while under-educated individual hold a qualification that is lower than what is required for his job. This problem of skills mismatch can be corrected by monitoring the performances of graduates in the labour market, and also by encouraging participation in vocational studies that would improve their skills.

The chance of males dominating the labour market is always on the high side. Majority of economies experience imbalances in the ratio of male-female participation in the labour market, the female population being at the lower tier. The contribution of the female population to economic growth and development is usually less than their potential, even though women constitute over half of the world's population (Hosney, 2016). On country level, women make up over half of the human capital endowment in any country, but according to the World Bank (2012), women only constitute close to 40 per cent of the world's labour force. National income accounting deficiencies might have also contributed to this, as women's economic activities are not clearly accounted for in many economies[2].

Atasoy (2016) also contended that cultural practices or tradition also affect a woman's labour force participation decision. The traditional role of women as home-makers, who allocate a greater part of time addressing household chores, caring for

[2] For example, the activities of housewives are not properly accounted for, even though some of the activities would have been paid for were they had been rendered by non-family members of the economy.

children and many other activities, reduces their labour force participation decisions as it restricts their occupational mobility and equally affects their labour supply.

The Nordic countries are exception to the trend. Traced to a set of values and beliefs emphasizing women's right to participate in the labour market, these countries have recorded success both in high female labour force participation and an extensive welfare state for women (Axel & Gylfi, 2014).

The participation of the female population in the development of a nation is important as it encourages efficiency and equity. Increased Female Labour Force Participation (FLFP) gives room for socio-economic advancements and empowerment of the women gender. As a result, there will be an increased utilization of the female human capital potential, which can also help in the reduction of the level of poverty and build an increasing capacity for economic growth (Mujahid, 2014; Fatima & Sultana, 2009). Understanding the key factors that influence the decision of females, on whether or not, to participate in the labour market, is of key importance to policy makers of various economies, in the process of promoting economic development and bridging the gap of gender participation in the labour market.

The International Monetary Fund (2013) explained that the mean gender participation gap, which is computed as the difference between the male and female labour force participation rates, has been declining since 1990. The decline is linked to worldwide decrease in the Male Labour Force Participation Rates (MLFPR), instead of an increase in the Female Labour Force Participation Rate (FLFPR), still leaving a substantial gap in the male-female participation rates.

Several theories have been put forward in order to effectively determine the factors that affect female participation in the labour force. Such theories include the "Work-Leisure Theory" of Mincer in 1962, the "Household Production Theory" of Becker in 1975 and the "Human Capital Theory" of Schultz in (1961). Researchers such as Schultz (1961), Psacharopoulos & Tzannatos (1989), Goldin (1994), Sackey (2005), and Axel & Gylfi (2014) showed that the Female Labour Force Participation (FLFP), of a country depends on the country's level of development. Khadim & Akram (2013) and Becker (1975), in studies carried out in Egypt, Pakistan, Kuwait and Nigeria show that one of the major determinants of the female labour force participation is education. It was deduced that in order for the female labour force participation to increase, female education must be prioritized as a major policy option. Findings from these studies highlight a strong connection between education, the quality of labour and labour force participation. This connection is apparent in the Nordics. For example, Sweden ranks as the country with the highest employment rate in the EU, Iceland ranks as the highest rate in Europe and generally; statistics in both countries shows that high employment rates for women is common. The trend is similar for many of the Nordic countries. The trend further indicates that high female labour force participation remains a basic feature of Nordic labour markets (Grunfelder et al, 2018).

As studies are being carried out to evaluate how graduates make their choices between work and further studies, different policy instruments are also being evaluated to analyse and determine the possible connection between higher education and the labour market in some countries. These studies are based on the initiatives and policy instruments that are employed for the improvement of supply and demand of graduates and the relevance of education to the labour market. In order to determine the relevance

of higher education in the labour market, Belgium opted for the option of monitoring graduates' performances in the labour market, offering employment opportunities, training and career guidance (Andrea, 2013). The findings in the country show that the least requirement for having a place in the labour market is the diploma. Candidates with lower requirements have higher chances of being unemployed, while candidates with bachelors and master's degree have much higher chances of being employed (VDAB, 2012).

Katz & Autor (1999) posited that the renewed interests in studying the connection between education and the success of the labour market of the United States is as a result of the increasing returns on education and the search for the reasons for the large gap between the more-educated and the less-educated workers.

In Nigeria, a dualised labour market, comprising the formal and informal sectors operates. Okoroafor (1990) suggested that this feature presents an institutional market model where employers, government and labour union policies are replaced with the interactions of the forces of demand and supply in determining wages. There are on-going developments in the Nigerian labour market since the economic reform programme began in the end of 1980s. Notable among these developments is the enlargement of the private sector to serve as an alternative choice for workers of the public sector who were let off on a large scale (Aminu, 2010). The private labour market's wage and self-employment sections differ with the public sector wage employment in determining the factors responsible for the participation of labour in the labour market (Glick & Sahn, 1997).

Following the global research pattern, there are several researches on determining the factors affecting labour participation in the labour market in Africa as a whole. However, quite a few focused on the Nigerian labour market (Aminu, 2007). Bennel (1983) used the Human Capital approach to compare the average wage differentials between the public and private sectors of Ghana, Kenya and Nigeria, but the model used was faulted by Van der Gaag, Stelcner and Vijverberg (1989). While examining the relationship between higher education, gender, public and private sector employment in Nigeria, Okuwa (2004) and Aromolaran (2004, 2006) found out that graduates of colleges of education enjoy lower rate of return and it continues to increase for graduates of polytechnics and universities. Thus, every additional year of tertiary education commands a higher wage return, while every additional year of primary or secondary education commands an increasing wage return, but such is lower than that of post-tertiary education.

It is against this background that this study seeks to examine and analyse the factors responsible for determining how Nigerian graduates choose their preferences regarding work and non-work activities, modifying the 'Labour-Leisure' model as a tool to answer the research questions and also attain the objectives of the study.

Research Questions and Objective of the Study

The research questions are; what are the determinants of labour supply in Nigeria; the effect of education on the Nigerian labour market; what factors determine the participation of Nigerian graduates in the labour market; and the impact further studies has on participation in the labour market?

The study objective is to identify the determinants of labour participation in the labour market and also to determine the relative impacts of the identified determinants on the work-further studies choice among graduates in Nigeria.

Scope and Significance of the Study

As previously stated, quite a number of studies have attempted, theoretically and empirically, to determine the factors that influence the decision of labour force participation. However, graduates decision regarding whether to enrol for further studies or to participate in the labour market immediately after graduation has not been the principal focus of many of them. For some, the focus has been narrowed down to a particular gender and in some cases the principal interest is not on the timing of participation, but on other determinants that are not necessarily connected to educational attainment. More so, quite a few have been found to focus on Nigeria. This study thus, seeks to contribute to the few that have been carried out in order to determine the factors influencing the work-further studies decision of graduates in Nigeria.

The target population for this study are fresh graduates from Nigerian tertiary institutions. The study is carried out using primary data sourced from randomly distributing structured questionnaires to respondents[3] among the target population who are graduates that have not exceeded two years since the completion of their studies. The study focuses mainly on students that were undergoing the compulsory national youth service[4] - which is a pool of graduates from all regions of the country – with

[3] 300 respondents were targeted, but a total of 272 responded; 3 of which were not admissible.

[4] This is known as the National Youth Service Corp (NYSC) in Nigeria; it is a mandatory service for graduates who completed their undergraduate education or its equivalents within Nigeria or outside its

respondents at different stages of the service; some at the initial stage, others mid-way through, and a third category comprising those at the later stage – on the verge of completing the service.

Data gathered from the questionnaires was analysed and interpreted based on the labour-leisure choice theory. The descriptive statistics also provided information of the characteristics of the selected sample. The characteristics of the sample are discussed therein. In this study, it is assumed that graduates are homogenous which means that consideration is not given to their discipline or area of study. While sectors in the economy may have sector-based educational requirements and level of training, this study assumes same requirement for all graduates irrespective of their discipline; this is one limitation of the study.

Organisation of the Study

This study is divided into five parts; an introductory part, three chapters and a concluding part. The introductory part covers the background to the study, research questions, objectives of the study, scope and significance of the study and organisation of the study. The first of the three chapters after the introductory chapter focuses on empirical and theoretical framework of the study, attained through reviewing related and relevant literature. The chapter is concluded with the identification of research gap filled by the study. The second of the three chapters highlights the research methodology; specifies the model used in the study, estimation technique, sources of data and measurement and statement of research hypothesis of the study. The last

borders and are in good health conditions. This service is requirement for employment in the public sector and postgraduate studies in any public university in Nigeria.

chapter of the study comprises the presentation of data, descriptive statistics of the data, and is concluded with the analysis and interpretation of model results. The concluding part of the study includes a summary of the entire study, a brief discussion on the study findings, conclusion of the study, and policy recommendation based on the findings of the study.

CHAPTER ONE

1. LITERATURE REVIEW

1.1 Labour Force Participation

1.1.1 Definition and Importance

The bureau of labour statistics (2013) defines the labour force as the number of people who are employed and those who are not employed but are still seeking or searching for a job. The requirement to be considered as part of the labour force is to be available, willing and looking for a job. Plecher (2020) identifies labour force participation rate as the proportion of the population ages between 15 and 64 that are economically active during a specific period. Labour force participation rate includes the section of the total population within the working age in the economy who are currently employed or seeking employment. This does not include those who are voluntarily unemployed like fulltime student, homemakers, and individuals above or below the working age.

Chmura (2019) explains that labour force participation rate refers to the number of people available for work (employed or unemployed) as a percentage of the total adult working age population. This rate indicates the size of the labour supply available to engage in the production of goods and services during a specific time. People that have stopped looking for work, but make up the number of those not captured in unemployment statistics are often included in the labour force participation rate. A low

labour participation rate may also indicate structural weakness in the labour market (Johnston, 2019). Steven (2016) defines labour force participation rate as the percentage of the civilian non institutional population 16 years and above that is working or actively looking for work. The two focal points in all of the definitions are; being within the recognised working age bracket as well as being readily seeking a job. So, an individual may be unemployed, yet remain part of the labour force; so long such individual is searching for job.

The labour force is considered as one of the vital assets of a country, especially in developing countries. The basic reason is that it is an important driver of economic growth and a broader measure for identifying the workers available for economic activities than the unemployment rate; it indicates the potential of all productive persons in the economy. Yakubu et al, (2020) explains that it is essential to increase the level of labour force participation in Nigeria in order to serve as an engine of economic growth and development of the country. Furthermore, they measured the effect of labour force participation on the economic growth of Nigeria for the period 1990-2017 using the real Gross domestic product (RGDP) as the growth indicator and their study revealed that labour force participation rate (LFPR) negatively affects the RGDP during the specified period. A low labour force participation rate indicates underutilization of labour resources in the economy which impedes the growth of such economy. Conversely, high labour force participation rate is associated with better utilisation of labour which contributes to economic growth.

In an attempt to analyse the long term relationship between unemployment and labour force participation, Yasmin (2013) observed the long term relationship between

labour force participation and its impact on economic growth and development using data on employment and labour force participation rate between 1983-2009 for; Belgium, Denmark, Ireland, France, Italy, Luxembourg, Netherlands, Portugal, Sweden and United Kingdom. In all the countries sampled except for Luxembourg, and Denmark, negative relationship between labour force participation rate and unemployment was observed for females. As a result of the increased unemployment rate for female, females, especially married females, feel discouraged from participating in the labour force. The effect of unemployment resulting from low participation is substantial as labour force participation increases aggregate economic efficiency and development potentials of the economies. However, an increased female participation is also important for equity and efficiency.

Chen et al, (2014) studied the relationship between labour force, long run growth and unemployment; study findings showed that increase in employment compensation enlarge the size of labour force, which in turn enhances employment and long term economic growth. This is in line with findings from many other studies on the economic growth and labour force participation.

1.2 Labour Force Participation in Nigeria

According to World Bank reports, the Nigerian labour force participation rate decreased by 0.1 per cent in 2017. The country's labour force participation rate was at its highest in December 1990 when it rose to 56.4 per cent; however, the lowest participation rate recorded for the country was in December 2014 which stood at 54.7 per cent. Treichel (2010) reported that in Nigeria, 74 per cent of 15 – 65 year-old is in

the labour force while 26 per cent is not in the labour force and of the 74 per cent in the labour force, a large percentage are employed while the rest are unemployed.

Okoroafor (1990) observed that Nigerian women's participation in labour force has been low despite the nation's educational policy of not discriminating based on gender or any other criterion. According to Aminu (2007), in the 1990's, the Nigerian labour force was made up of 62 per cent male and 38 per cent female. He also observed based on International Labour Organization 1980-2009 data and a cross-sectional study on the Nigerian labour force in 2005, that the labour force participation rate for male is above 70 per cent but reduced steadily from 77 per cent in 1980 to 73 per cent in 2009. The decline led the council of economic advisers in the country to conclude that; since 2007, 50 per cent of the fall in labour force participation was due to aging of the population of the labour force, while 16.6 per cent was due to cyclical changes. The decrease witnessed in the male labour force participation may be connected to trade union activities and massive lay off of workers. In contrast however, the female labour force participation rate steadily increased from 36 per cent in 1980 to 39 per cent in 2008. This significant difference between the male labour force participation rate and that of the female may be due to religion as H'madoun (2010) revealed in her study on the influence of religion on female labour force participation across 48 countries. She observed that religious women tend to participate less in labour activities, but a contrary observation was reached by Bayanpourtehrani & Sylwester (2012) in their study. Initially, they found female labour force participation to be lower in Muslim countries, but the relationship diminished significantly after the introduction of control variables, suggesting that Islam might not diminish labour force participation for females. Strengthening the finding that religion is not the responsible factor for the decline, Ross

(2008) observed that oil revenue, rather than religion, is the factor responsible for low participation in some Muslim countries. In other words, these countries generate more revenue from oil, leaving them with surpluses that can allow for their women-folk to opt out of the labour market and devote themselves to caring for their families.

Over the period of 1980 through 2009, there has been a rise in female labour force participation rate except for ages between 55 and 64. This is due to factors such as increasing educational attainment, the decline in fertility level with modern technologies and means of controlling fertility, the increased emphasis on gender equality, the desire to benefit from the rise in national per-capita income. Significantly, education has a negative effect on fertility while education and increased family size reduces female labour participation rate (Sackey, 2005).

Goksel (2013) investigated how women's labour force participation is influenced by conservatism in Turkey. Trends showed that for over 50 years in the country, female labour force participation was on the decline; which was consistent with previous literature wherein the decline was attributed to conservatism. To check the validity of such claim, two sub-indices – social norms and religious norms were introduced to determine whether Turkey's case was consistent with findings from previous studies. Results from the study confirmed the claim of previous studies. However, social norms had more influence than religious norms. The study also confirmed that urbanisation and education also affect female labour force participation rate.

Ogwumike et al. (2006) analysed the structure of the Nigerian labour market by identifying some of the factors that determine entry into the market and earning levels.

The result indicated the existence of inequality within sectors for both men and women. Nonetheless, inequality is higher for self-employed men than self-employed women, but the situation is different for men and women who are employed by others; in this category, higher inequality occurs among women than men.

Irrespective of the trends witnessed in the past for the labour market in Nigeria, being a country with a large share of its population under 25 is a strong incentive towards higher level of labour market participation. In other words, non-participating members of society are more likely to do so at some point in the future.

1.3 Theoretical Framework:

1.3.1 Work-Leisure Choice Theory

The analysis of work-leisure choice is explained in the simplest form by Mincer (1962) and neoclassical microeconomics model known as labour-leisure choice model. The model assumed that households as suppliers of labour in the economy are rational and always seek to maximize their utility. The household has to decide on how much time to devote to production and consumption activities. The trade-off happens when an individual has to choose between allocation of time for work and allocation of time for non-work activities - leisure (further education, as assumed in this study)[5].The choice is therefore based on the amount of income the market is willing to pay a graduate for the

[5] Utility is obtained from leisure time which is the time not spent at work. A utility-maximizing individual is therefore faced with choices made along the labour-leisure budget constraint. Education being a non-work activity is categorised as an activity under time not spent at work which is represented as leisure.

time devoted to work relative to the value this graduate's time generates when used for further educational attainment. Accordingly, the rate at which time is allocated between work and leisure given a change in wage rate depends on the relative value placed on additional income and on leisure which in this case is further educational attainment by the individual.

Mincer (1962) however points out that married women unlike other household units do not have their choices limited to the allocation of time between work and leisure since work at home is another work activity devoted to a large portion of their time. Hence, women make choices between leisure, work at home and work outside home. Hosney (2016) utilized the *probit* model in making a comparative study of factors influencing labour force participation in Egypt and Germany using the Egyptian labour market panel survey and the 2012 German social economic panel. The study examined the effect of education on the Egyptian female labour force participation while considering other personal and household factors compared to the German female labour force participation. The results of the research showed that 35 per cent of the women in Egypt are in the labour force. There is a positive relationship between female labour force participation and educational attainment i.e. the higher the female's educational attainment, the higher her chances of being in the labour force. A higher probability of female participation in the labour force was associated to age. Hosney (2016) further explained that single females tend to have higher participation rate than other marital status category because Egypt like many developing countries consider married women to be entirely responsible for household activities while the husband is responsible for finances. A comparison of Egyptian female labour force participation and the German female labour force participation revealed that German females have 68

per cent probability of participation which is over 35 per cent higher than that of Egypt. Both countries' participation rate is influenced by years of schooling, marital status, location and number of children. However, how they differ could not be explained in the analysis.

Although in the consumption of time, leisure and work are considered mutually exclusive outcomes of the same consumption bundle which sets them apart as alternatives, it is still possible to vary their consumption combination as individuals are influenced by underlining factors such as wage and skills accumulation (Weiss, 2009). Interestingly, a certain amount of leisure is required to sustain workers' productive capacities and since it is assumed in this study that the activity engaged in at the time for leisure is schooling, workers bring improved human capital to the labour market in the future after the conclusion of their studies.

1.3.2 Household Production Theory

Becker's (1975) household production theory of allocation of time laid the foundation for the analysis of household production and allocation of time within the household. Becker assumed that households produce and consume commodities associated with different levels of activities performed by the household (e.g. household consumption of food, child bearing and leisure activities including leisure on the job). These commodities were assumed to have significant effect on utility. In order to maximize utility, households attempt to efficiently allocate not only time but other inputs available. The household produces commodities by combining input of goods and time according to the cost minimization theory of the firm. A member of individual

house hold unit (represented by a graduate in this study) combines his acquired skill and time in maximizing his utility. The trade-off happens when a graduate has to choose between combining his acquired skills and further educational attainment to maximize his utility or combining his acquired skills and earning jobs to maximize his utility. The choice is then determined by the expected value of further studies and work in terms of utility maximization.

The labour force participation studies in the developing countries have tried translating general propositions of labour force participation in the developed countries into models for empirical work. Attempts have been made to find measurable factors that determine labour Force participation. Among such studies is Fadayomi & Olurionala (2014) study on the importance of household structure in the determination of labour force participation in Nigeria. The study showed that households play an important role in the Nigerian society in the allocation of resources to its members and in expected contributions to the survival of the household as a primary and decision-making unit. Both female and male household members have responsibilities conferred on them with the household heads having a larger part of the responsibilities. As a result of the higher responsibilities conferred on household heads, they have higher participation rate than other members of the households.

Aminu (2010) on the determinants of labour force participation and earnings in wage employment in Nigeria using the general household survey data of 1998/1999 and 2007/2008, the determinants of labour force participation in Nigeria were identified as:the possession of household assets and living in free accommodation; being a resident in an urban area; the presence of children below age 5; acquirement of

additional education. In the study, he used the *probit* model of labour force participation, the multinomial *logit* model of labour force participation and the *Mincerian* model. Using a two-stage cluster sampling method for data collection, the theoretical expectation for the research was that having a household asset reduces the probability of labour force participation for both male and female in wage employment while being young increases the probability of participation. The study estimated three models for male and female across four wage employment segments (wage employment in incorporated private organizations, informal private organizations, public corporations and wage employment in public ministries).Also, education has a positive and static impact on wage employment participation. An employee's hourly wage is determined by the level of education, experience and the location of residence of the employee. An increase in education was found to have increased participation rate. The higher the educational level, the higher the probability of participation in public sectors wage employment which Aminu expressed was due to the assured job in the sector. On the other hand, the influence of higher education as revealed by Aminu (2010) study is of higher magnitude in the female which implies that females are more willing to participate in wage employment with higher level of education. Furthermore, household members with old females have higher probability of participation especially for female members.

Doe (2014) assessed graduate's work readiness with a sample size of 967 graduate students at a research university in the South Eastern Region in the United States. He observed 85.7 per cent of master's students indicated that their most likely activity after graduation was employment fulltime compared to 68 per cent of Doctoral Program completers. However, 23 per cent of doctoral program completers indicated

graduate or professional school as the second highest activity after graduation compared to 6.6 per cent of master's program holders. The study also revealed that graduate program completers with internship experience tended to perceive themselves as more ready for work than those without internship experience. Having an internship experience exposes the students to the real world of work. This experience helps the students to develop teamwork, communication, research and other necessary skills required in the real work environment. A further analysis of graduate work readiness showed that graduate program completers who had an assistantship have higher perceived readiness than those who do not have assistantship (Duch et al, 2001). Ilias' (1990) study on the relationship between higher education and labour market in Greece revealed that the level of education does not appear to have a significant impact on the changes in employment as a result of over education signal. It was found that individuals with postgraduate studies have to wait longer unemployed while the situation was worse for Ph.D. holders.

1.3.3 Human Capital Theory

Since pioneered in the field of economics by Gary S. Becker, human capital theory continues to catch attention in economic discourse. Hinged on knowledge and skill accumulation, the theory suggests that individuals with higher returns on investment through improved career prospects in mind develop their employability capacities through education and training (Cesen, 2004). Becker (1975) referred to the theory as the productive investments embodied in individuals and these include their skills, abilities, knowledge, habits and social attributes as a result of investments in education, on-the-job training sessions, and medical care. As an intangible asset, the

human capital is classified as the economic value of a worker's experience and these assets include education, training, intelligence, skills, health and traits like loyalty and punctuality which employers value (Kenton, 2019).

The initial concept of human capital can be traced back to Smith's book *"An inquiry into the nature and causes of the wealth of nations"* wherein he noted in his definition: "The acquisition of talents, education, study or apprenticeship, costs of real expense, which is capital in a person" (Smith, 1776). However, Gary Becker (1964), Theodore Schultz (1961) and Jacob Mincer (1958) were the ones that popularized the modern theory. In Becker's book, the human capital is viewed as similar to physical means of production where education, training, health care are invested in the human capital, and as such, the output is partly depended on the rate of return of the human capital.

The basis of the concept is suggestive of the individuals developing their capacities and abilities to improve their career prospects and thus generate income by investing in education, training, and health care. The human capital theory emphasises the importance of education and training of individuals as a factor of labour participation in the labour market. Based on the theory, the education and training of the individual are seen as investments that help the individual increase his productivity and efficiency and also improve his chances of securing a higher occupational status and earnings.

With rapid globalisation and innovation occurring in world economies, education and training becomes unavoidably important to individuals, and economic entities, for which human capital strongly influences production and productivity. Thus,

developing human capital – increased educational level and flow of highly educated individuals to the labour market – improves both welfare and living standard and in turn boosts economic development. In that connection, the positive relationship between education and wage rates in the labour market is emphasised. The human capital can also be said to be task-specific, a concept developed by Gibbons and Waldman (2004), stating that individuals develop their capabilities in line with the nature of task or abilities required to carry out a certain task, as such, such individual can put their skills to use in firms to which such skills are valuable, or for job assignments requiring those skills.

For the measurement of human capital, the Human Capital Index is used. This index is a measurement of economic success which is often documented in a publication of the World Bank. The index positions countries based on their level of investment in education and health care for youths in the countries. The index explains the measure of human capital as it accounts for skills and knowledge that are acquired from schooling and training (Patrinos et al., 2021).

Due to increasing growth rates, human capital is expected to grow faster in the future than it does in the current generation. Becker (1994) suggests that educational and health inputs will be the major factors for the growth and rapid expansion in human capital. This is because the continuous research in education and health is expected to produce more positive and productive impacts on the future generation, thus increasing the productive capacity in the future generation. The human capital is an intangible asset, which is owned by none other than the individual who bears it. This makes it a relatively important factor in the development and growth of any economy. It is a

human resource that has been transformed as a result of the continuous inputs of education and health invested in it. This process is known as the human capital formation. In countries experiencing labour surplus, the problem of scarcity of tangible capital can be corrected by increasing the rate of human capital formation with investment in education and healthcare from both the private and public sectors of the economy. As an intangible asset, the human capital is a tool for improving an economy's comprehensive development owing to a direct relationship between human capital and human development and as such an economy that focuses on human development is bound to achieve quantitative and qualitative economic progress (Mahbub-ul-Haq, 1996).

1.3.4 Educational Attainment

Educational attainment generally refers individuals' highest degree or level of education. It is the formal training or education completed by individuals; the extent to which the individual has gone in his or her academic pursuit. Education attainment is regarded as the requirement for better employment and it determines the individual's decision of whether to join the labour market or not. It has been found, from various studies, that the most effective factor that determines the participation of the labour force as it applies to developing and developed countries is educational attainment (Hosney, 2016).

In recent times, the sharp rise in the demand for higher education in many countries has generated overwhelming importance on the labour markets. As the *Mincerian* equation suggests, for every year of added education, an individual's rate of

return to schooling of about 5-8 per cent is generated on annual basis, the highest of returns being tertiary education (Patrinos, 2016). It is thus inferred that higher education levels are beneficial for the individual and the economy at large, resulting in improved health, higher well-being and standard of living, and reduced rate of crime (Machin & McNally, 2007).

Mostly viewed as a functional form of the human capital that contributes hugely to the growth of any economy, the theory that education should be treated as an investment in the human capital has proven to be worthwhile in its own unique way, as a key factor in the studies of the sources of economic development and the distribution of income, throughout the world (Hosney, 2016). New development theories have revealed the importance of education and development of human capital on economic growth in the long run, as it is termed as a catalyst or engine of growth and development in the new world economy (Becker 1975; Psacharopoulos & Tzannatos 1989; Taubman & Wales 1975; OECD 1989).

1.4 Empirical Review

In examining educational attainment and female labour force participation (FLFP) for Egypt, Hosney (2016) observed how personal, household and demographic factors affect FLFP. The result showed that higher educational attainment increases the probability of participation in the labour market. Compared with FLFP in Germany, a number of factors affect FLFP; age and years of schooling both have positive relationship with labour participation, while marital status, type of residence and the

number of children have negative effect for Egypt, but a higher marginal effect on FLFP for Germany.

Tudorel et al. (2016) using a *probit* model tested for factors that influence labour force participation in Bucharest. Educational attainment was associated to labour force participation although variations based on ethnicity occurs. The result showed that for every step up in educational attainment, there is an associated increase in labour force participation for every ethnic group in Bucharest's labour market with the most impact associated to tertiary education.

Employing standard multinomial *logit* model as a bench-mark model for two other models[6] in a three-model approach in modelling labour force participation, Laplagne et al. (2007) estimated a labour force participation model separately for men and women with identical data from the Household, Income and Labour Dynamics in Australia (HILDA) survey for 2001 – 2004 to observe factors that influence participation in work. Results showed that *ceterisparibus*, university qualification impacts labour force participation; it increases the probability of being in the labour force, and particularly to a larger extent for women.

Naude & Serumaga-Zake (2001) studied the determinants of labour force participation and unemployment in South Africa's North West province using a *probit* model. Gender, location, educational level and family structure are significant factors as observed through the results. The study showed that for a rise in education through a year of schooling the probability of employment is pushed up by one per cent.

[6] Panel multinomial *logit* and simultaneous equation

Likewise, being married or previously married[7] increases employment chances in the province. Household characteristics like being a house renter or owner also affected work decisions in the province. Members of household with rent obligation are likely to enter the labour market faster than those without such obligations. Similarly, members of households receiving non-labour income are unlikely to participate in the labour force compared to those without such income; the same also applies to members of households with high incomes and heads that are actively engaged in the labour force.

In another study (Mohamed, 2015), China, Columbia, Egypt and Sierra Leone's labour markets were analysed using logistic, OLS and *tobit* models to estimate the determinants of participation in the markets. The logistic regression showed that for all countries, age, marriage, household head and health condition are significant determinants and also confirmed, in line with literature, that participation is higher for men than women in all the countries. Furthermore, tertiary education was both a significant and positive determinant in Columbia and Egypt. While marriage impacted labour force participation positively in China and Sierra Leone, the situation for Egypt and Columbia was otherwise as labour force participation was negatively impacted by marriage. As for the OLS regression based analysis, it was observed that gender, wealth and educational attainment were the major determinants of wages in all countries and also, in all the countries, except for Sierra Leone, a wage differential is evident.

[7] As is the case of divorcee and/or widow/widower

1.5 Determinants of Labour Force Participation

A range of factors are responsible for the participation of labour in the labour force generally. Some of the factors identified in the reviewed literature are:

Educational Attainment:

Educational attainment measures the extent to which an individual has gone in his educational pursuit. As such the higher the level of education of an individual, the higher the chances of the such individual being a part of the labour force and similarly, a lower education is connected to lower participation in the labour force.

Gender:

In any economy, the ratio of the male labour force participation is always greater than that of the female labour force participation. The reason for this varies across different locations which simply mean that this phenomenon is not just due to one particular reason, but a range of reasons. Low level of education of the female gender, discrimination against the female gender, age range and marital status are some of the factors that could cause a low female labour participation.

Religion:

One of the factors that could determine the participation of individuals in the labour force is religion. While some religions favour the equal participation of both women and men in the labour force, some others favour male participation at the expense of female participation, permitting female participation only when there is need for it. Within same religion also, there are divergent perspectives, depending on the prevailing custom and degree of importance attached to family care, career development among other things.

Decrease in Fertility Level:

Compared to the olden times, modern times have recorded technological advancement in all aspects of human lives. Technologies and policies that favour the reduction in fertility, that is, the number of children given birth to by each woman have helped to reduce or regulate child birth drastically. As such, many females opt for this option, which gives them room to participate fully or partially in the labour force.

Age:

The age of an individual is one of the factors that determine his/her participation in the labour force. There appears to be a positive relationship between both. It also offers an individual the opportunity of additional years of education. While an individual may be young and eligible to be in the labour force, the age of such

individual who falls in the working category of labour force can influence the decision in both ways; younger graduates may feel they have sufficient time to reach higher educational height, while the older graduates' age may influence their decision to participate in the labour force as soon as they graduate.

Unemployment:

Unemployment affects labour force participation negatively. The more the rate of unemployment, the lower the rate of labour force participation. There is bound to be a significant effect of unemployment as a result of low level of labour participation, because labour force participation is expected to increase aggregate economic efficiency and development.

Others:

Marital status, residence type, location, previous school type and household size are among the other determinants of labour force participation highlighted in previous studies. Determinants peculiar to the study area are selected and used in the regression model for this study.

To ascertain which of these determinants of labour force participation are significant for fresh graduates in Nigeria, this study depends on the Work-Leisure Choice Model, Household Production Theory and Human Capital Theory. As such, a probit model, following the methodology of many of the studies reviewed, is used in

this study. The variables of interest are categorised as individual and demographic variables, socio-economic variables and geographic or location variables.

CHAPTER TWO

2. EMPIRICAL APPLICATION AND DATA

2.1 Labour-Leisure Choice Model

A typical fresh graduate allocates his fixed time between work and leisure in order to attain satisfaction, measured through an index *U* which is called utility. Such graduate's utility is hinged on two alternatives; his consumption, which is attainable through earnings from his involvement in production as labour, and his involvement in other activities not classified as work. Assuming that he is rational, his utility function is thus;

$$U = f(C, L) \qquad 1$$

Where; U represents his total utility; C represents consumption and L represents leisure. While his consumption constraint is his wage, time is the constraint to his leisure.

Time constraint is therefore;

$$T = H + L \qquad 2$$

The graduate gets paid *w*, if he works *h* hours and his income (*Y*) becomes;

$$Y = wH;\ wH = w\ (T - L) \qquad 3$$

His total consumption is therefore income from time used for labour activities (wT) added to non-labour income (N), with price of leisure (wL) subtracted. Thus, the budget constraint is;

$$P(C) = wT - wL + N \qquad 4$$

Normalising P as 1,

$$C = wT - wL + N \qquad 5$$

The optimal utility function is therefore;

$$\ell = U\ (C, L) + \gamma[wT - wL + N - C] \qquad 6$$

Differentiating with respect to L and C

$$\frac{\partial \ell}{\partial C} = \frac{\partial U}{\partial C} - \ \gamma = 0\ \ Therefore\ \mathrm{MUc} = \gamma \qquad 7$$

$$\frac{\partial \ell}{\partial L} = \frac{\partial U}{\partial L} - \ \gamma = 0\ Therefore\ \frac{\mathrm{MU}}{W} L = \gamma \qquad 8$$

From equation 7 and 8,

$$\mathrm{MUL}/_{\mathrm{MUc}} = w * \qquad 9$$

For wages greater or equal to market wage, a graduate would be induced to participate in the labour market. Similarly, an increase in *w* would result to a decrease in non-labour activities.

2.1.1 Model Specification

The utility function in this study is modified to include each graduate's individual-specific, household and location characteristics. The general model is expressed as;

$$Y_i = f\,(X_d, X_h, X_e, U_i) \qquad 10$$

Where Y_i represents labour force participation (LFP); X_d, $X_h$and X_e represent individual, household and educational characteristics; and U_i represents other unobservable factors that influence a graduate's decision to participate in the labour market.

The reduced form of the general model is therefore expressed below:

$$y_i^{*} = \beta_0 + \sum_{j=1}^{k} \beta_j x_{ij} + \varepsilon_i \qquad 11$$

y_i^{*} in equation 11 is a latent variable and not observable. It is observed as a dummy variable where y_i equalsone (y_i = 1) when greater than zero and y equals zero (y_i = 0), if otherwise.

2.2 Data Source

The data for this study is obtained from primary source through the use of questionnaires. The participants are recent Nigerian university graduates[8] who are capable of making the labour-leisure choice. Information regarding their education, households' and socioeconomic characteristics are collected in the questionnaire.A sample size of 300 was intend but only 272 questionnaires were administered using the simple random sampling methods to a pool of graduate students, affect verification, 269 questionnaires were finally used in the study.

2.3 Method of Estimation

The *probit* and *logit* models are used in the study. The two models are both types of generalised linear models. In the two of them, the explained variable has two categories; the occurrence of an event, as well as its non-occurrence; which means the occurrence of the second category.

Since the main objective of this study is to analyse the identified factors behind the decisions of graduates after the completion of their studies in the study area, the study works with the assumption that graduates' decisions after the completion of their studies is either the pursue further their studies or enter into the labour force immediately. For this reason, the *probit* and *logit* models fit for the study.

While both models are very similar, there is a difference in the specification of the error term for the models; the *probit* model assumes that the error term is normally

[8] These graduates have graduated no more than two years as at the time of data collection.

distributed following the normal distribution, while the *logit* model follows the logistic distribution. The marginal effects are interpreted as the change in probability of y_i as one unit change in x_i occurs.

The functional form of the model expressed as;

$$y_i = \beta_0 + \beta_1 x_{1i} + \beta_2\ x_{2i} + \beta_3 x_{3i} + \beta_4 x_{4i} + \beta_5 x_{5i} + \beta_6 x_{6i} + \beta_7 x_{7i} + \beta_8 x_{8i} + \beta_9 x_{9i} + \beta_{10} x_{10i} + \beta_{11} x_{11i} + \beta_{12} x_{12i} + \beta_{13} x_{13i} + \beta_{14} x_{14i} + \beta_{15} x_{15i} + \varepsilon_i$$

2.4 Description of Variables

The dependent variable in this study is a dummy variable that represents graduate decision to either participate in the labour force upon graduation or delay such in the pursuit of further studies. As a categorical variable, it takes the value 1 for participation upon graduation and if otherwise, takes the value 0.

The explanatory variables consist of an array of discrete and categorical variables. They are: age in number of completed years, the square of age which is meant to check for non-linearity, the gender variable checks if there is difference in the outcomes for men compared to women; to observe that, male category takes the value 1 and female category is represented with 0. Similarly, marital status is a categorical variable where the value 1 represents graduates that are married, while others such as divorced, widow and single graduates are grouped together as not married taking the value 0.

Table 1: Description of Variables

Variable	Description
Dependent	**Variable**
LFP (y_i =1)	Graduate labour force participation (Dummy Variable)
	If a graduate decides to participate in the labour force = 1
	Otherwise (further studies) = 0
Explanatory	**Variables**
Age (x_1)	Graduates' age in completed years
Age Squared (x_2)	The square of age (to check for non-linearity)
Gender (x_3)	Gender (dummy variable)
	Male = 1, Female = 0
Marital Status (x_4)	Marital status (dummy variable)
	Married =1, Not married=0 (Divorced, Widow, Single)
Education (x_5)	Formal education in completed years

Grades[9]	Dummy Variables (Third Class omitted in the regression to avoid multi-collinearity)
First Class (x_6)	First Class=1, otherwise=0
U - 2nd Class(x_7)	Upper Second Class=1, otherwise=0
L - 2nd Class(x_8)	Lower Second Class=1, otherwise=0
Third Class	Third Class omitted
Vocation (x_9)	Vocational training (dummy variable) If graduate had such=1, otherwise=0
Household Debt (x_{10})	Whether graduate's family acquired loan for his education (dummy variable) Yes=1, no=0
Household Monthly Income (x_{11})	Graduate's household monthly income in Naira[10]
Age of Household	The age of graduate's household head in completed

[9] In Nigeria, the grading system for university education is generally on a 5 point grading scale which consists of 4 classes and a pass grade which is similar to completion of studies without a satisfactory result. The class of grades are First Class Honours (4.50 – 5.00), Second Class Honours Upper Division (3.50 – 4.49), Second Class Honours Lower Division (2.40 – 3.49), Third Class Honours (1.50 – 2.39) and Pass (1.00 – 1.49).

[10] Naira in the currency in use in Nigeria; 1 Naira is about 0.0024 United States Dollar.

head (x_{12})	years.
House Type (x_{13})	Graduate's house type (dummy variable) Owner=1, renter=0
Scholarship (x_{14})	Whether graduate received some scholarship for his education (dummy variable) Yes=1, no=0
School Type (x_{15})	The type of school attended by graduate Public/government owned school=1 Private=0

CHAPTER THREE

3. DATA ANALYSIS AND INTERPRETATION

3.1 Descriptive Analysis

Table 2: Descriptive Statistics of Sample

	Obs	Mean	Std. Dev.	Min	Max
Age	269	26.357	3.657	19	39
Education in Years	269	18.77	2.49	14	27
Age of Household Head	269	54.186	12.237	22	83
Household Monthly Income (In Naira)	269	109000	103000	10000	650000

Source: *Author's computation 2021.*

As shown in Table 2 above, a sample size of 269 through administered questionnaires [11] .The average age of the respondents is 26.4 years; the youngest respondent is 19 years old and the oldest respondent is 39 years old.

The sample showed that on the average, a graduate spends 18.8 years pursing

[11] 3 questionnaires were not properly filled, thus reducing the total sample size to 269.

formal education; the least years spent on education according to the sample is 14, while the most years spent towards education is 27.

Household information collected indicated that the youngest household head is 22 years old and the oldest household head is 83 years old, while the average age of the head of household for the population is 54.12.

Also, the average household monthly income for the sample is 109000 naira[12]. The lowest monthly income is 10000 naira and the highest household monthly income is 650000 naira respectively.

Table 3: Categorical Variables (i)

Gender	Freq.	Percent	Cum.
Female	81	30.11	30.11
Male	188	69.89	100.00

Table 4: Categorical Variables (ii)

Grades	Freq.	Percent	Cum.
First Class	21	7.81	7.81

[12] 1 Naira is about 0.0024 United States Dollar

Upper Second Class	96	35.69	43.49
Lower Second Class	108	40.15	83.64
Third Class/Pass	44	16.36	100.00

Table 5: Categorical Variables (iii)

House Type	Freq.	Percent	Cum.
Renter	151	56.13	56.13
Owner	118	43.87	100.00

Table 6: Categorical Variables (iv)

Scholarship Support	Freq.	Percent	Cum.
No	225	83.64	83.64
Yes	44	16.36	100.00

Table 7: Categorical Variables (v & vi)

School Type	Freq.	Percent	Cum.
Private University	11	4.09	4.09
Public University	258	95.91	100.00

Debt	Freq.	Percent	Cum.
No Debt	234	86.99	86.99
Indebted	35	13.01	100.00

Source: *Author's computation 2021.*

Table 3 shows the characteristics of the sample. The total number of the sample is 269.A total of 81 respondents, representing 30.11 per cent of the sample are females, while 188 respondents, representing 69.89 per cent are males.

Grades of the respondents are categorized into four; in the first category are first class grade holders totaling 21, making up 7.81 per cent of the sample; the second category comprises of upper second class grade holders totaling 96, making up 35.6 per cent of the sample; the third category comprises upper second class grade holders totaling 108, making up 40.15 per cent of the sample; and the fourth category combines third class and pass grades holders, totaling 44 and makes up 16.36 per cent of the

respondents.

One hundred and fifty one (151) of the respondents representing 56.13 per cent occupy rented apartments, while a total of 118, consisting 43.87 per cent of the respondents, live as part of households that own a house. A total of 11 respondents attended private university, while 258 attended public university giving their percentages as 4.09 per cent and 95.91 per cent. The percentage of respondents whose families acquired loans or are indebted as a result of their education is 13.01 per cent, leaving those without debts at 86.99 per cent totaling 35 and 234 respectively.

Table 8: Categorization on the basis of gender

Gender	Marital Status		
	Single	**Married**	**Total**
Female	51	30	81
Male	137	51	188
Total	188	81	269

	House Type		
	Renter	**Owner**	**Total**
Female	46	35	81
Male	105	83	188
Total	151	118	269

	Scholarship Support		
	No	**Yes**	**Total**
Female	73	8	81

Male	152	36	188
Total	225	44	269

	School Type		
	Private	**Public**	**Total**
Female	3	78	81
Male	8	180	188
Total	11	258	269

	Debt		
	No	**Yes**	**Total**
Female	71	10	81
Male	163	25	188
Total	234	35	269

Source: *Author's computation 2021.*

Table 4 shows the categorization of the respondents on the basis of their gender for their marital status, house type, whether scholarship support was received, type of school attended and debt situation of their families owed to their education. From the total of 81 female respondents, 30 respondents are married, while 51 of them are not married. As for the188male respondents, 51 are married, while 137 are not. Based on house type, 46 and 105 respondents are house renters for female and male, while 35 and 83 female and male respondents live with families that are house owners. Graduates who received scholarship support for their education are 8 for females, 36 for males, while the number of respondents who had no scholarship support is 73 for females and 152 for males. Also, 78 female and 180 male respondents attended public schools, while the number of respondents who attended private schools stood at 3 for females and 8 for males. The last part of the table shows the debt status of the respondents. Out of the 81 female respondents, 71 did not take loans to fund their education, while the remaining 10 took loans. And for the 188 male respondents, 163 did not take loans, while 25 took loans.

3.2 Results

Table 9: Estimations' Results

	(1)	(2)	(3)	(4)
y_i* (explained)	1 = labour force 0 = further studies			
	Probit Model	**Probit Model**	**Logit Model**	**Logit Model**
Variables	*Coefficients*	*Marginal Effects*	*Coefficients*	*Marginal Effects*
Age	-0.117	-0.0454	-0.192	-0.0464
	(0.268)	(0.104)	(0.437)	(0.106)
Age squared	0.00217	0.000845	0.00353	0.000851
	(0.00489)	(0.00190)	(0.00796)	(0.00192)
Gender	0.694***	0.254***	1.151***	0.257***
	(0.196)	(0.0656)	(0.333)	(0.0663)
Marital Status	0.589**	0.230**	0.971**	0.236**
	(0.238)	(0.0918)	(0.394)	(0.0939)
Education in Years	0.0589*	0.0229*	0.0939*	0.0226*
	(0.0348)	(0.0135)	(0.0564)	(0.0136)

First Class	0.0334	0.0130	0.0613	0.0148
	(0.405)	(0.158)	(0.656)	(0.159)
Upper Second Class	-0.203	-0.0785	-0.337	-0.0806
	(0.343)	(0.132)	(0.555)	(0.131)
Lower Second Class	-0.0684	-0.0265	-0.101	-0.0242
	(0.339)	(0.131)	(0.550)	(0.132)
o.Third Class	-		-	
Vocational Training	0.348**	0.133**	0.584**	0.138**
	(0.172)	(0.0644)	(0.285)	(0.0654)
HH Debt	-0.132	-0.0508	-0.210	-0.0497
	(0.254)	(0.0960)	(0.410)	(0.0955)
HH Monthly Income	-5.22e-07	-2.03e-07	-7.92e-07	-1.91e-07
	(8.44e-07)	(3.28e-07)	(1.41e-06)	(3.40e-07)
Age (HHH)	0.0151**	0.00588**	0.0253**	0.00610**
	(0.00761)	(0.00296)	(0.0126)	(0.00304)

House Type	-0.0962	-0.0373	-0.185	-0.0444
	(0.179)	(0.0692)	(0.294)	(0.0704)
Scholarship	0.0153	0.00595	0.0324	0.00783
	(0.241)	(0.0937)	(0.397)	(0.0961)
School Type	-0.0415	-0.0162	-0.124	-0.0303
	(0.443)	(0.174)	(0.721)	(0.177)
Constant	-1.239		-1.934	
	(3.566)		(5.821)	
Observations	269	269	269	269
Pseudo R^2	**0.093**		**0.093**	
Fraction of Correct		**0.409**		**0.406**

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

3.3 Interpretation and Discussion of Results

The *probit* and *logit* models estimated in this study represent the relationship between labour force participation and its determinants for fresh graduates in Nigeria. Both models capture the relative impact that all the determinants have on the labour-force participation of graduates in Nigeria. The determinants were chosen for the models in the study based on the reviewed literature. Some of the variables included represent the individual characteristics of the samples, while a few others were included in the model in order to capture specific characteristics that helps identify the socio-economic status of the sample.

Table 5 shows the result for the estimated *probit* and *logit* models. The coefficients indicate the signs for the variables - significant variables at 90 per cent, 95 per cent and 99 per cent are shown in the table - and in determining each variable's impact on outcomes, the estimated marginal effect is also considered for both models. The marginal effect shows the level of change in the probability outcome due to a unit change in an independent variable holding all other independent variables constant at the mean. That is, the marginal effects indicate the speed of change that an independent variable impacts on the probability of a graduate's choice on the average. It is the slope of the curve relating each independent variable to the dependent variable.

Considering the results for both models, it is observed that the difference in the values of coefficients and the marginal effects are slight, which confirms the common opinion that *probit* and *logit* models, more often than not, are similar except for the difference in their error distribution. In this study, results show that both models are in

the same direction as the significant explanatory variables are the same for the two, as well as their significance levels.

Result shows that gender, education, marital status, vocation and the age of household head are the significant explanatory variables in the study. For the *probit* and *logit* models, gender is significant at 10 per cent; marital status, vocation and age of household head are all significant at 5 per cent; while education is significant at all levels. The significant variables are interpreted considering both models and their marginal effects.

Gender is a positively significant variable as indicated by the coefficients 0.694 and 1.151 for both models. As a binary variable, the marginal effects show the difference in probability for male and female graduates. Given that male graduate is represented as 1 in the models, the marginal effects – 0.254 and 0.257- show that the probability of a graduate joining the labour force is 25.4 per cent and 25.7 per cent higher if the graduate is a male. In other words the likelihood of joining the labour force is 25 per cent – 26 per cent higher for male graduates. This strengthens the finding of Abdulloev et al. (2014) which highlighted that labour force participation are higher for men in most societies. As many of the women observed in the study opens a gap for future study; investigating the likelihood of participation for women divided across different societal strata such as marital status, location, number of children, health conditions, labour market entry and exit regulations amongst other things.

Baah-Boateng et al. (2013) also observed that the increased responsibility for married women is also likely to result into higher labour force participation for them. In an attempt to reduce the gap between men and women labour force participation,

governments are urged to provide support for women in generating income opportunities, as well as other things to sustain them in the labour market.

Similar to gender, marital status is also a binary variable in the study; a married graduate is represented with 1, while non-married graduate is represented with 0. The results showed that marital status is a positive determinant of labour force participation for fresh graduate in Nigeria. For both the *probit* and *logit* regressions, the marginal effects 0.230 and 0.236 for the two models indicate that married graduates are 23 per cent to 24 per cent more likely to opt for joining the labour force and not pursue further studies in Nigeria. The impact of marital status in this study is similar to the findings of Ahituv & Lerman (2007) who posited, based on their study findings, that marriage and earnings have a highly positive interaction with each other. They observed that entering and remaining in marriage affected wage rates and working hours positively. In other words, marital status induces people to enter the labour market.

Educational attainment – measured as years of education – is also a positive significant variable in the study. Interestingly, it is significant at all levels, which makes it a stronger determinant than the other significant variables in the study. The coefficients for the two models, 0.059 and 0.094 indicate the positive relationship between a graduate's participation in the labour force and the number of years of education such graduate has attained. Marginal effects are same for both models and stand at 0.023 which implies that an additional year in the pursuit of education increases the probability of a graduate joining the labour force by 2.3 per cent. This is consistent with human capital theory as well as findings from some previous studies regarding education and its effect on labour force participation, even though the likelihood of

comparative advantage and variations on returns on education may occur on the basis of different sub-groups that the level of education may be classified into. In this case, extensive study on the studied courses – whether they are technical, professional, amongst other things – is an aspect that further studies on the impact of educational attainment on labour force participation can be carried out.

Vocational training and the age of household heads are also positively significant explanatory variables for labour force participation in the study area. Graduates who acquire vocation before the completion of their studies are 13.3 per cent or 13.8 per cent more likely to join the labour compared to their counterparts who possess no vocation before the completion of their studies. This is also consistent with explanations about the human capital theory as vocational training also improves skills and improves the opportunity of better earning and labour force participation benefits.

As for age of household heads, it is shown that as the age of a graduate's household head increases by a year, the probability of such graduate joining the labour force increases by 0.6 per cent all other things equal. The implication herein is that as household heads grow older getting closer to retirement age, their willingness to remain in the labour force reduces and as a sharp contrast, younger members of the household are more likely join the labour force to compensate for the likely reduction in income as time goes on. More so, retirement or disengagement from the labour force, even though might reduce the family income, might yet call for increased household expenditures as older members of the household might contend with issues such as health which may further require the younger family members to have more income and as such necessitate their entrance into the labour market.

Likewise, the younger household members, as they grow, have higher demands to expend on and with older household heads, the ability to meet their demands and expenditures may be weakened.

CONCLUSION

Summary

This study is centred on fresh graduates' choice or post-graduation engagement decision-making in Nigeria. It commenced highlighting the importance of labour in the economy, and equally made an attempt towards extending literature regarding the importance of human-capital, labour, labour force and education in economic growth and overall social advancement. It is against this background that the study is continued with the identification of the roles, definition and dynamics of labour and labour supply in the economy. Similarly, an overview of projections for labour-force; especially from emerging economies and OECD countries provided a cross-referencing from different economies around the world, it identified young people as one of the major source of labour - the introductory part provided a background to the study, highlighting the importance of the labour force to economic growth, establishing the role of youth – wherein graduates constitute a large part of – as an important role in the growth process – and equally stressing that the quality of labour matters as much, if not more than the quantity of labour. Statistics and studies showed that higher level of education, for all countries, is associated with higher share in the labour force and by extension, individuals are likely to attain a level of education, skill or training that guarantees better reward for labour and improved labour force participation benefits.

The human capital theory formed the backbone of the discussion regarding the quality of labour, enhancement of labour as well as the returns on investment on the quality of labour. The theory emphasizes the importance of knowledge or technical

know-how and the effect of skills accumulated by people overtime. The level of education is one of the main metric for measuring the quality of labour. The study is premised on the assumption that the average labour supplier is rational and forward looking, which means that he prefers to make his choice based on the long-term which spreads across his lifecycle, that quality of labour and education are homogenous, and measures the quality of education through years of completed education.

The human capital theory further stresses that capital goods and inputs are important in the process of production, however, the effectiveness of these inputs and the production process, at large, depends mainly on educated and skilled workers. Human capital comprises of two complementary things: an individual's innate ability and the skills the individual acquires through education and/or on the job training (Fleischhauer, 2007). A major distinction between human capital and other assets is that its yield is strictly connected to a worker's labour supply, which means that it becomes a major determinant of the worker's earnings (Fleischhauer, 2007; Hall & Johnson, 1980; Ishikawa & Ryan, 2002).

Also, the labour-leisure choice theory is yet another major theory that formed the basis for this study. The empirical framework of the study was based on the choice theory with modifications to allow for peculiarities of the study area. To allow for a broad range of variables in the empirical model, previous studies were reviewed to determine general determinants of labour force participation and also to form the basis for some specific determinants connected to the study area.

The relationship between considered determinants is established using the *probit* and *logit* estimation with results interpreted. The findings showed that gender,

education, marital status, vocation and age of household heads are the significant determinants of labour force participation decision of graduates in the study area.

Conclusion and Recommendation

Labour force participation is important to an economy's development. Developed countries have higher rate of participation and more importantly, they possess a labour market with a considerable level of highly skilled labour. This is evident in economic variables such as national outputs and also in the living standards in such economies. The case is different for developing countries as they have relatively lesser skilled labour in the labour market which also translates into lower national outputs, living standards and even production processes.

The study has shown that education and vocation are positively related to labour force participation. Based on this, it is pertinent that education policy in the study area should be reviewed towards allowing opportunities for quality education wherein vocational trainings related to a student's chosen discipline can be acquired. This would in the long-term translate into improvement in the quality of labour and economic processes such as production, distribution and consumption levels in the overall economy. Similarly, it will help the study area to improve its global competitiveness and equally address some of the economic problems that are apparent therein. A labour force with higher skilled persons is more likely to have labour with higher productivity and motivation for work, compared to one with lower skilled persons.

In the study area, it is also observed that men are more likely to be engaged in the labour force than women. Studies have also shown that this is not peculiar to the

study area alone; a number of factors are responsible for such and given the socio-economic nature of the study area, that may not be unusual. However, accounting for economic activities engaged in by women adequately may also put things in the right perspective. Studies may have shown that men's labour force participation is higher compared to women, accounting for economic activities showed that many women in the study area and similar areas engage in economic activities that are not properly accounted for, as those activities would ordinarily have been paid for as economic services were they provided by people that are non-household members.

Findings from the study show that the importance of human capital development in the country cannot be over-emphasised. The importance of education and training, in the light of the study findings show that more should be done in the area of developing the average worker in the Nigerian economy. While some students may reach optimum satisfaction with their first degree, another group of students intending to further their education are often impeded by some socio-economic factors such as funding, caring for aging family members or family members with disabilities. The opportunity cost for such category of students is high not just on their current earnings, but also on future earnings and job related benefits. It is pertinent that policy makers consider viable options for this category of students. A worker that reaches optimal productivity through appropriate human capital investment would be of immense benefit both to himself or herself and his or her household members as he would be more productive and have improved earning which will in turn translate into better productivity in the economy.

Therefore, investment in education is a right decision from the micro and macro perspectives. It translates into quality labour for the labour market and by extension, attainment of productivity growth that is required for development. For this reason, Policy makers in Nigeria should endeavour to improve the access to education and enhancement of channels for graduates to attaining trainings and skills necessary to make them quality addition to the labour force.

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APPENDIX

Questionnaire on Further Studies and Labour Force Participation Choice among Fresh Graduates in Nigeria

Dear respondent

Thank you for taking your time to respond to this questionnaire.

This questionnaire is designed to analyse further studies and labour-force participation decisions of graduates in Nigeria; a research study that is a partial requirement for a Master's degree in Economics at Bursa Uludağ University.

The information that you provide will be anonymised wherever possible, and will be used only for the purpose of the study.

Your assistance and participation are greatly appreciated.

Adebayo Abdulateef ODEYEMI
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1. What is your gender? Male ☐ Female ☐

2. How old are you (in completed years)? _____

3. What is your marital status? Married ☐ Non-Married ☐

4. Your total number of years of education _____

5. What class of grade of grade did you graduated with?

1st Class ☐ 2nd Class Upper ☐ 2nd Class Lower ☐

3rd Cl☐ Pass☐

6. Have/are you acquiring any vocational skill? Yes ☐ No ☐

If yes, for how many years? _____

7. Do you have any family member in school? Yes ☐ No ☐

If yes, how many are they? _____

8. Do you have any accrued student loan? Yes ☐ No ☐

If yes, how much is the loan? _____

9. What type of house do you live in? Rented ☐ Owned ☐

10. How old is your household head? _____

11. What is your household total income? _____

12. Did you receive any study scholarship? Yes ☐ No ☐

13. What type of university did you attend? Public ☐ Private ☐

14. Have you engaged in part time job before? Yes ☐ No ☐

15. What do you intend after your national service? Further Studies ☐ Job Hunt ☐