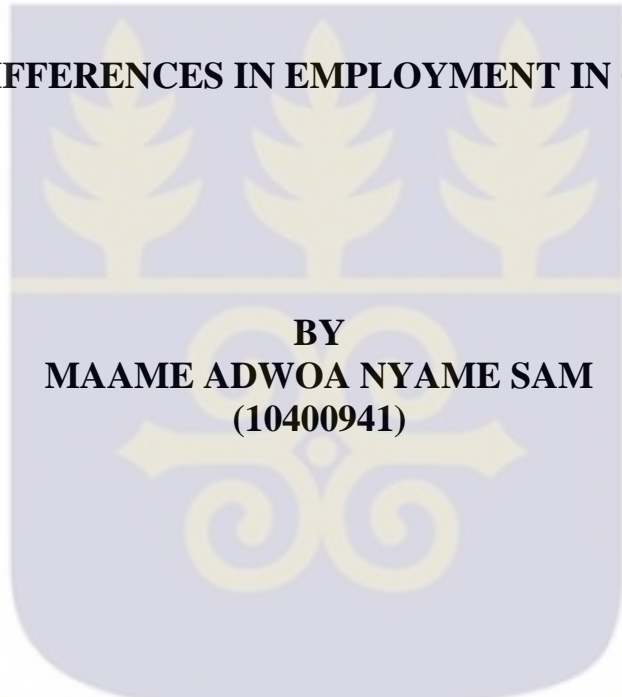


UNIVERSITY OF GHANA

**REGIONAL INSTITUTE FOR POPULATION
STUDIES (RIPS)**

SEX DIFFERENCES IN EMPLOYMENT IN GHANA

The image shows a large, faint watermark of the University of Ghana crest in the background. The crest is a shield-shaped emblem with a blue background and yellow/gold symbols. The top part features three stylized trees or plants. The bottom part features a central cross-like symbol with two curved lines below it. The text of the thesis is overlaid on this watermark.

**BY
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**A THESIS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON
IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE
AWARD OF MASTER OF ARTS DEGREE IN POPULATION
STUDIES**

OCTOBER, 2019

DECLARATION

I, Maame Adwoa Nyame Sam, hereby declare that this dissertation titled “Sex differences in Employment in Ghana” is my own work toward the award of Master of Arts in Population Studies. I further declare that it contains no material previously published by any other person nor material which has been accepted for the award of any other degree in the University or any other institution, except where due acknowledgement has been made in the text and in the reference list.



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18th May 2020

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20th May 2020

.....
DATE

DEDICATION

I dedicate this work to my Dad, Mr Albert Kodwo Sam. Thank you for helping me grow up to do better than you could ever achieve.

APPRECIATION

I will like to thank the Almighty God for the gift of life, strength, wisdom and ability to finish this programme successfully. Special thanks and acknowledgement go to my supervisor Dr. Pearl Kyei, for her guidance, comments, and timely constructive feedback that led to the completion of this work. Without her support, I would probably have given up especially when the going was tough. God richly bless you. I can confidently say that today, I am a better researcher and will go out to the world beaming with confidence of what I have achieved.

Faculty members of Regional Institute for Population Studies also deserve commendation for honing my skills with various theoretical concepts and quantitative skills. I have not only gained the analytical tool but, the intellectual confidence in the field of Population Studies.

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ABSTRACT

Employment promotes economic growth and development in a country. It plays a key role in the eradication of poverty among citizens in a country. This thesis is a quantitative study research which uses the Ghana Living Standard Survey round seven (GLSS, 2016/2017) to study sex differences in employment status and sector in Ghana. The sample size for this study was 22,378 representing both the employed and the unemployed and a sub-sample of 19,054 employed were selected out of those who are employed who are either in the formal or informal sector. The study focused on respondents aged between 18 to 60 years (who were considered to be within the active working age). Graphs, frequencies and percentages were used to describe the characteristics of the respondents at the univariate level. The study used bivariate analysis to examine the association between the predictor variables and employment status and sector using a chi-square test. The binary logistic regression model was used at the multivariate level to examine how the predictor variables correlated with employment status and employment sector. The results indicated that there were 85% of respondents who were employed out of which 31% of the respondents were in the formal sector and 69% were in the informal sector with males dominating the formal sector. All the variables selected namely sex of the respondents, marital status, age, place of residence, religion, education, region, except literacy level were statistically significant in predicting employment status in the study which predicted whether one would be employed or not. The results from the study showed that men were more likely to be employed than women. The results of the study for the employment sector showed that sex, place of residence, marital status, age, religion, education and literacy level were statistically significant in predicting the employment sector one could be found in Ghana. In relation to the sector, men were more likely to be in the formal sector than women. Inter alia, results of the study for employment status showed that urban dwellers were less likely to be employed as compared to rural dwellers but urban

dwellers were more likely to be in the formal sector of employment. Based on the findings of the study, recommendations are made by putting in place measures to ensure that women in particular enter the formal sector of employment which maybe applicable to other developing countries.

Keywords: Employment Status, Employment Sector, Formal Sector, Informal Sector, Males, Females, Men, Women, Labour outcome

LIST OF ABBREVIATIONS

AfDB- African Development Bank Group

ERA-Equal Rights Advocates

GLSS- Ghana Living Standard Survey

GSS- Ghana Statistical Service

ILO- International Labor Organisation.

IOM- International Organisation for Migration

OECD- Organisation for Economic Co-operation and Development

UNECA- United Nations Economic Commission for Africa

UNDP- United Nations Development Programme

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Employment plays a critical role in determining long-term economic growth and development and it is one of the main pillars that help combat poverty (ILO, 2008; Dutta- Gupta, Grant, Kerksick, Bloom & Chaudry, 2018). Employment promotes good health and wellbeing and it is seen as a route out of social exclusion (Grover & Piggott, 2013). Employment in the long term contributes to happiness and help build financial self-esteem (De Neve & Ward, 2017). High employment rate is linked to economic growth because high employment rate promotes economic growth and development (Temitope, 2013). Most often, there is a close association between employment, human resource, geopolitics, trade, and economic wellbeing since these are the fundamentals on which nations are built (Laidi, 2008; Kowalski & Loretto, 2017). This relationship creates tremendous benefits for states, businesses and the community as a whole.

Employment has two categories: an individual can either be employed or unemployed. An employed person is someone who is actually engaged in any type of work for a livelihood. ‘Work refers to any economic activity performed by an individual that contributes to economic production of goods and services’ (Ghana Statistical Service, 2014). Conversely, an unemployed person is not engaged in any work and has no attachment to a job or business and is potentially available for jobs (Ghana Statistical Service, 2014). Employment sector on the other hand refers to the sector which a person works categorized as formal or informal sector (Ghana Statistical Service, 2014).

Globally, employment is distributed along gender lines. The Sustainable Development Goal 3 has at heart of its approach to promote gender equality by 2030, achieve full productive employment and decent work for all women (Lengfelder, 2016). Data on the world's population suggest that females constitute about half of the world's population. Extant literature posit that investing in human capital development of women reaps dual dividend; there is a general improvement in the quality of life and women become the champions of human development for their families and communities (UNECA, 2015), hence ignoring females or limiting the capacity of women in nation building is depriving the world of about half of its human resource impact (Ritchie & Roser, 2019). Gender equality in the employment sector is necessary and it is also key to achieving inclusive economic growth and resilient societies (OECD, 2019). If the working-age population of women is at par with men there will be an improvement in the economic growth of the country which can help in poverty reduction (Faridi, Chaudhry & Anwar, 2009a).

According to ILO (2018) report, out of the over 7 billion people, 3 billion people are employed and 205 million people are unemployed (these statistics depict a very high level of employment in the world). Statistics shows that 75.0% of men are employed and 48.5% of women are employed in the world. In sub-Saharan Africa, 74.0% of men are employed and 64.7% women are employed. However in Ghana, 82.2% of men are employed and 77.3% of women are employed (ILO, 2018). In Ghana the disparity is not so different from the global context but there are efforts been put in place to help bridge the gender disparity gap in the employment sector.

Despite the increase in the working-age population of women, women are the worse affected groups in Africa in relation to employment sector outcomes (Ortiz-Ospina & Tzvetkova,

2017). ILO analysis shows that in both developed and developing economies the employment sector of women is heavily concentrated in “invisible activities” and occupations such as clerks, service and retail sales workers (Rubery & Rafferty, 2013). In contrast, men are more likely to be employed in crafts, trades, plant, machine operations, managerial and legislative occupations (Rubery & Rafferty, 2013).

Furthermore, women workers dominate the informal sector with only a small but growing percentage of the population of women working in the formal sector (Were & Kiringai, 2004). Notwithstanding the contribution of the informal sector to national economies (Chen, 2012) most of these informal sectors are unregistered and are not subject to government scrutiny (Hart & Moore, 2008).

Research has shown that the sex differences in employment status and sector can be attributed partially to some demographic and socio-economic factors. Emphatically, some of these factors include level of education (Baah-Boateng, Nketia-Amponsah, & Frempong, 2013), marital status, place of residence, health, household headship status, fertility (Rahmah & Idris, 2012; Faridi et al., 2009a&b; Magibu, 2010). Also, it has been typically found out that employment outcomes of women are negatively affected by the presence of young children or the likelihood of bearing children (Baah-Boateng et al., 2013). Women with children below the ages of 6 are often hindered in their ability to be in formal employment, as these women have to spend time on child-bearing/childcare roles.

In addition, existing literature has also shown that personal preferences, socio-economic constraints, gender role conformity are the drivers in the sex differences in the employment outcomes (ILO, 2013; Saxonberg, 2014). For instance, the belief that the effort of balancing work and family can cause severe stress and depression are some of the personal preference decisions that some women take in order to have their peace of mind and self-assurance to

take care of their home rather than being employed. On the other hand, the socio-economic restrictions that work against women take the form of meager investment in their education at the early stage of their life and lack of requisite skill that will pave the way for women to venture into the job market (Van Ham & Buchel, 2006). Gender role norms which usually start at birth also affect women in their decision making when it comes to employment. All these factors have one way or the other either negatively or positively affected the rate at which females participate in the labour market. If more females are educated and venture into the employment especially in the formal sector, there will be a break and reverse cycle of the intergenerational poverty which hits women much harder (Sackey, 2005).

There is a need to prioritize, study and understand these factors that influence sex differences in employment status and sector, how it can be supported and addressed to serve as a guide for government and other relevant stakeholders in designing and implementing policies to address the needs of this key segment of the population in this instance, being women.

1.2 STATEMENT OF THE PROBLEM

Employment has indubitably played and continue to play a significant role in the economic growth and development of a country. In contemporary times, there has been growing attention by researchers into gendered dimensions of employment despite several historical studies done in both the advanced and developing nations (Bowen & Finegan, 1969; Boserup, 1970; Smith and O'Keefe, 1980). Even though women are saddled with childbearing, domestic activities and wage discrimination in recent times quite similar to the distant past, more women are getting employed in middle- income countries albeit in the informal sector (ILO, 2017). In Ghana for instance, female informal employment constitute about 60% while formal employment constitute 24% (Baah-Boateng, 2015).

As key players in development in terms of contribution to better nutrition, health, savings and reinvestment at the family and larger society level (Annan, 2000), the employment of females in all sectors should be at par with males to drive meaningful and inclusive development (ERA, 2019). AfDB (2015) report posit that women are more active as economic agents in Africa than anywhere else in the world hence there is the urgency for more women to be employed especially in the formal sector so they can contribute their quota to the economic development of nations especially in developing countries (Oduro et al., 2011). Also, poverty rates are lower in countries with measures put in place to help improve gender equality in employment and employment sector outcomes (UNECA, 2015)

The sex differences in the employment sector as is the case of Ghana can have negative effects on the working population as well as the nation. Less women being employed correlates with higher dependency ratios on the working population and represent a loss of a vital chunk of the human capital (Nicholas, Mitchell & Lindner, 2013) and at the national level the loss of human capital can led to economic depression (Kalil, 2005). When more women are employed, economies grow faster in response to higher labour inputs (Giddens & Sutton, 2009), which is a strong driver towards economic growth.

Looking at Ghana's employment sector, which comprises of formal and informal sector, women are predominately employed in the informal sector characterized with free entry and exit; which is not only unique in the economy of Ghana but the world at large, most especially in sub-Saharan Africa, Southeast Asia and South America (Anh et al., 2003; Srivastava & Sasi Kumar, 2003). The formal sector on the other hand is subject to regulations, wages paid on regular basis, levied taxes, existing contracts between employers and workers among other processes and this sector is mainly dominated by men. A lot of researches done on employment and employment sector outcomes have found out that the strong factors responsible for the disparity in employment are mostly demographic and socio-economic factors.

A lot of studies and policy debates in Ghana have been done on sex differences in employment status and sector accounting for reduction in the huge disparity in employment but this study attempts to uncover the factors that influence sex differences as far as employment status and sectors are concerned.

1.3 RESEARCH QUESTIONS

The study seeks to find answers to these questions

- I. What factors are associated with sex differences in employment in Ghana?
- II. What is the relationship between the factors associated with sex differences in employment outcomes in Ghana?

1.4 OBJECTIVES

The main objective of the study is to determine the factors accounting for sex differences in employment in Ghana. To achieve the broad objective as stated above, the researcher hopes to address the following specific objectives namely:

- I. Determine the predictors of sex differences in employment in Ghana by testing for the socio-economic and demographic variables, using bivariate and multivariate analyses.
- II. Access the nature of the sex differential representation in sector- specific employment in Ghana.

1.5 RATIONALE OF THE STUDY

The disparity in employment status and sector has been of great concern to world economies and developing economies even though the fight for gender equality in employment has been on the mantra of most government policies. It is therefore imperative that the study of sex differences will help understand why the phenomena exist, why men dominate the employment sector especially the formal sector and propose measures to help address this issue in the

country so women can be at par with men at the employment sector.

Pertinent to what has been established which brings about sex differences in employment (Faridi et al, 2009a&b; Yakubu, 2010; Magidu, 2010), the study is specific and seeks to study sex differences in employment status and sector in Ghana. The study will focus on the determinants of employment such as educational attainment, literacy level, age, place of residents since these are some of the socio-economic factors that correlate to bring about sex differences in employment in Ghana. This study is significant because it seeks to explore and expose the influence of these socio-economic and demographic determinants on employment and employment sector outcomes.

Findings and relevant information from this study will inform government on the decisions they make towards the employment sector. For instance, the findings would help the government to come up with a new road map that will seek to address gender inequality in employment sector. In addition, the government policies that will be fashioned out will be very instrumental in addressing the challenges individuals in general face with regard to employment. Also, this study will not only arouse further studies on employment but will compliment previous works or add to several related works serving as reference for other researchers who would want to examine sex differences in employment.

1.6 HYPOTHESES

1. Men are more likely to be employed than women
2. Men are more likely to be working in the formal sector than women.

3. People with a high level of education are more likely to be in the formal sector than people with low level of education.
4. Urban dwellers are more likely to be employed than rural dwellers.

1.7 ORGANIZATION OF THE STUDY

The study is divided into six chapters. Chapter One starts with the introduction to the study which comprises of the background information, statement of the problem, research questions rationale of the study, objectives of the research and hypotheses that will guide the work. The second chapter reviews relevant literature, including scholarly articles, journals, past projects from which the conceptual framework is derived.

Chapter Three is centered on the methodology as well as the limitations inherent in the data.

Chapter Four is made up of univariate analysis as well as bivariate analysis, which mainly examines the relationship between the explanatory variables and employment status and sector.

The multivariate analyses in Chapter Five entails binary logistic regression models. This is due to the dichotomous nature of the dependent variables (Employment Status and Sector)

Summary, conclusion and recommendations are presented finally in Chapter Six.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

There has been extensive research on the determinants of employment. Over the years, development specialist, economists, and population scientists have studied the various determinants of employment. Several methodologies, concepts and theories have been developed due to the extensive study done on this topic. This chapter reviews the literature done on sex differences in employment in Ghana and other countries. The first section of this chapter reviews relevant literature on the determinants of employment sector outcomes with a focus on sex differences in employment in Ghana. The second section focuses on theories that help explain sex differences in employment. From the literature reviewed a postulated conceptual framework will be primarily adopted and explored.

2.2 OVERVIEW OF RESEARCH ON EMPLOYMENT STATUS AND SECTOR

Employment status indicates whether an individual is employed (regular employee, self-employed or a contributing family worker) or unemployed (Baah-Boateng et al., 2013). The quality of employment is largely measured by the sector of employment of an individual. In most developing countries, there are two distinct recognized sectors; a regulated or protected formal sector and an unregulated or unprotected informal sector (Koto, 2015).

The informal sector also known as the informal economy or the hidden economy or underground economy is used to describe a heterogeneous group of economic arrangements which comprises of the wage labour workers, self-employed people, paid domestic workers, those earning a monthly salary or those working on casual basis who are not subject to regulation by the state in an environment where similar activities are (Peterson & Lewis, 1999).

The dominance of women in the informal sector in Ghana is largely connected to their low level of education (Boateng & Ganu, 2012). This constrains their entry into decent and productive employment, hence consigning them to the informal sector where vulnerable employment and working poverty rates are high (Heintz & Posel, 2008).

2.3 DETERMINANTS OF SEX DIFFERENCES IN EMPLOYMENT

Sex differences in employment come as a result of systematic barriers such as norms that restricts jobs and positions women can seek (Dedeoglu, 2010) and influence the decisions women make as these decisions must be in agreement with their families and societies (Bespinar, 2010). Also, the prevalence of young children in the household is a contributing factor to the kind of sector of employment women find themselves (Gemmill & Lindberg, 2013). The dearth of childcare institutions and the widespread conviction that children are better off at home with their mothers for the first three years of their lives (Saxonberg, 2014) are all some of the systematic barriers that hinder women from effectively and efficiently gaining gainful employment.

Globally, men are more likely to be employed than women (Waldfogel, 1998; ILO, 2018). The explanations for these phenomena are social stratification and economic factors that interplay at the household and macro-level leading to these outcomes (Chaudhary & Verick, 2014). The next subsection of this chapter reviews relevant literature on the determinants of employment and employment sector outcomes with a focus on sex differences in employment in Ghana.

2.3.1 Sex and Employment

According to West & Zimmerman (1987), sex is a biological concept which is an ascribed status because a person is born with it, and it makes an individual male or female. Statistics has shown that women constitute a little over half of the world's population but their contribution to

employment and labour market outcomes, growth and economic-development are less than desired (Kabeer, 2012). Female employment has a direct impact on various aspects of social, economic, health and political wellbeing of nations. When more women work, societies grow (Tansel, 2002). This shows that there is a strong positive correlation between female employment and economic development. Labour markets and employment all over the world are divided along gender lines and the sustainable development goal 5 places so much emphasis on gender equality in terms of employment (OECD, 2019). The International Monetary Fund Report (2013) avers that when women are employed they are mostly in the informal sector and more importantly among the poor in the society notwithstanding the informal sector been characterized with less job security, low minimum level wages, sub-standard working conditions and lack of social security (Comola & de Mello, 2013; Khamis & Akay, 2011)

Sex differences in employment in Ghana is not so different from the global context, as more males are employed (World Economic Forum, 2018) and this is in contingent with an individual's educational background and skills (Issahaku, 2015). In reference to education males have an upper hand over females. Social customs and other systematic barriers such as tradition, culture, customs and religion are some of the fundamental factors which negatively affect women who want to venture into the world of work (Bombuwela; De Alwis & Chamalru, 2013). In Ghana, women are in the lower echelons of economic activity especially in the private informal sector where women predominately are entrepreneurs of small and medium scale businesses (Abdullah, Abdullah & Abuhriba, 2014).

In a study done by Magidu (2010), using data from the Uganda National Service Delivery Survey to study the employment sector, the results indicated that females have a lower probability of being in the formal sector than their male counterparts. The researcher concluded by recommending that priority should be placed on education of women for quality human capital which will improve their employment rate in the formal sector.

Rahmah & Idris (2012) also looked at the gender wage differentials and discrimination in the Malaysian labour market, using a household survey in 2007/08; it was observed that the employment rate of women was lower than that of men even in instances where women had the same level of education as their male counterpart. This disparity is so because employers in Malaysia have the notion that women are less experienced and skilled compared to men. Emphatically, it has been profoundly acknowledged that women are often immobile; due to the challenges they encounter especially in unpaid household work as they try to combine that with work. Women in the formal sector receive lower wages than their male counterparts (Kardam & Toksoz, 2004) because the employers believe that the man is the breadwinner at home hence his wages should be higher than that of the woman since the man being the head of the household has other economic burdens to cater for. This makes paid employment unattractive for majority of women reason why more often women exit the labour market as and when they can (Ilkharacan, 2012; Bugra & Savaskan, 2014) resulting in gender differences in the employment sector.

In Ghana, (Baah-Boateng, 2012), studied the changing patterns of gender dimensional labour market discrimination in Ghana and found out that, there was a bigger labour market challenge for men than for women from 1960 to 2000 before this phenomena reversed. It suffices to say that the improvement in education of women has accounted to for this phenomenon. This study reaffirmed the fact that individuals' sex is likely to play a significant role in employment status and sector outcomes.

Hafeez & Ahmad (2002) studied the factors that determine the employment decision making among educated women in the district of Punjab, Pakistan using a field survey. The results indicated that the employment rates of women increased as their ages increased. The researchers identified the high rates of female employment in the informal sector. The researchers attributed the reason behind this particular phenomenon with the fact that young females lacked the

needed skills, techniques, experience and training needed at the formal sector of employment and also, other systematic and cultural barriers that hit hard on women serves as a form of barrier in entering the formal sector. For the informal sector, it cannot be disputed that women become their own bosses as they contribute to the development of nations.

Studies done by Ulrichs (2016) also found out that the informal sector is characterized with favourable labour market conditions such as flexible working hours and low level of education accounting for reasons why women dominate the informal sector of employment (Koto, 2015; Pradhan, Costa, Rybski, Lucht, & Kropp, 2017).

According to Dickens & Lang (1995), who studied the gender differences in unemployment in Sri Lanka, the researchers found evidence supporting the fact that there are higher unemployment rates among women than men because women have a lower opportunity cost when it comes to employment. A plausible reason for this is the low wages received by women in the labour market (Addison & Demery, 1993).

All the above studies have similar findings supporting the argument that sex differences in employment favour men more than women.

2.3.2 Age and Employment

Age is an important factor when it comes to employment. Baah-Boateng et al. (2013) postulate that unemployment rates among individuals decline with age, with the highest rate among the youth aged (15-24).

In a study done by Mei (2014), using data from the labour force survey of Statistics Canada in studying the gender gap in labour force participation in Canada, the researcher identified that individuals aged 15-24 are less likely to gain meaningful employment because at that age more of these individuals are in school acquiring more skills to venture into the labour force. Those

who are out of school may not have the requisite skills, experience and technique to gain meaningful employment hence a lot of them will venture into the informal employment which does not require specialized skills and techniques for a particular task. Running logistic model results from the analysis identified individuals aged 25-39 as the ones who dominated the employment sector. The result for male and female employment rates indicated that there was no significant difference between individuals aged 24-34 and 35-39 since these people were the ones who dominated the employment sector. The employment rates, however, drastically declined after age 45 for men. For women, their employment rates begin to increase at age 35-39 as they would have more time to be employed because at this time the family characteristics that may hinder maternal employment, such as having tightly spaced births and more young children in the household would have decreased (Gemmill & Lindberg, 2013). The researcher postulated that the decline recorded for men is as a result of a decline in physical health. Before age 65 a lot of men would have left the employment sector and labour force due to retirement. The researcher concluded that the prime age for employment is 25- 44 years.

In another study done by Patacchini, Cipollone, & Vallanti (2013), who investigated the changes in women's labour market in fifteen European Union countries over twenty years, using data from ECHP and EUSIL database. The researchers observed that there was a hump-shaped pattern between age and employment. After the researchers divided the countries into four groups; Southern, Social Democratic, Liberal and continental, the result indicated that rapid employment occurs at 35-44 years. The employment rates begin to decline at age 45 and most people venture into the informal sector more. Also, the researchers concluded that female employment in West Africa increases rather than decreases as their ages increases.

A study of labour force participation in South Africa done by Yakubu (2010), using Quarterly Labour Force Survey by Statistics South Africa, found out that females in the employment sector are relatively young. It was identified that these females were usually in the age range of

15-29 years. Durnel (2010) investigated the sex differences in employment using Turkey as a case study. From the study, it was identified that males have the highest employment rates as compared to females in Turkey. Males between 25-44 years dominated the workforce and at older ages, there was a decline in the employment sector. Compared to women, at age 25-44 years, males had a 95.9% employment rate as compared to 31.8% employment rate for women.

Other empirical studies done by Sackey & Osei (2006); AfDB et al. (2012) have shown that younger people are more likely to face unemployment challenges as compared to older people because of lower labour skills and experience. Age has been identified to be very significant in the labour market and employment (Echebiri, 2005).

However, in Indonesia, it is a common practice to see children under 15 years who are employed and in the labour force (Mollet, 2011). These children are mostly identified in the informal sector of employment. The poor socio-economic background of the families of these children compile them to venture into employment early so they can earn a living to support their families.

At the prime working age, the employment rates of women are low because more women leave the labour market to give birth. These women take time off to raise their children and return when their children are older. The story is not the same for men at the prime working- age as they are employed more because there are no constraints for them as compared to women.

The findings of (Hafeez & Ahmad, 2002; Mei, 2014 and Patacchini et al., 2013), contradicts the findings of (Yakubu, 2010; Mollet, 2011). These results suggest that there is a positive correlation between age and employment which varies from country to country.

2.3.3 Marital status and Employment

Women's social role as caregivers for children, marriage and home takers prevent them from getting meaningful employment and working in the formal sector. These social institutions have a strong influence on female labour market outcome and employment rate (World Bank, 2012). For instance, a man's job is to earn a living and take care of the household serving as a main reason married men venture into the labour market while their counterparts' job is to look after the home and family. The societal belief that "It is not good if a man stays at home and cares for the children and the woman goes to work because it is the husband's primary duty to work outside the home to provide for his family" is a contributing factor for more men seeking for employment.

Empirical evidence shows that female employment has an inverse relationship with their spouse employment rate (Khan & Khan, 2009). Faridi et al. (2009), states that women are less likely to be employed when their partners are employed. These women rather prefer to be in the informal sector and unpaid household jobs which will allow them have extra time to take care of their family but (Antecol & Cobb-Clark, 2003) argues that female employment rates would be higher if men were supportive of women working outside of the home to help take care of the financial needs at home. In addition, the caregiving role women play in home production and working outside the home serve as a complement rather than substitutes which should not be taken lightly at all. The paper further argues that the overburdened nature of married women at home allows them to engage in self-employment and the informal sector where the time constraints are a bit flexible allowing them to work and perform their home duties.

In a study done by Siphambe & Motswapong (2010), the researchers found out that marriage impacts negatively on female employment rates. The results from the study show that married women stay at home to take care of household activities. The researchers also argued that if women decided to work, they were more likely to be in the public formal sector, unpaid family

work, agriculture and non-governmental organization rather than the private informal sector. The choice of the public sector over the private sector is as a result of the security the public sector gives over the private sector. Also, employment policies in the public sector favour the easy transfer of women to different geographic location mostly to where their husbands are working but still be in the public sector. The private sector does not have these policies hence transfer means leaving that particular field of work.

The study on female labour force participation in South Africa by Yakubu (2010), finds out that the highest number of females who are employed are single or never married. Faridi et al. (2009) illustrated that marriage influences female employment rates positively because married women or women in unions enter into the labour market to support their husbands in the provision of basic economic needs for the household. In this instance, the burden of taking care of the needs of the family is not left only in the care of the man. A study done to investigate the female labour force participation in Trinidad and Tobago by Roopnarine & Ramrattan (2011), using the probit model to identify the factors that affect women in the area of employment. The study found out that, being single had a positive relationship of being employed as compared to women in unions. This is so because these single women do not have caregiving role task to perform as compared to married women.

Results show that married women who have their husbands unemployed or underemployed are pushed to enter the labour force and gain meaningful employment so they can assist in taking care of the home (Karaoglan & Okten, 2012). Further findings from the study shows that in Turkey the labour supply of married women responds positively to their husbands' job loss and underemployment, and negatively to a decrease in overall unemployment opportunities in the country.

In the investigation of changes in women labour market participation in fifteen European Union countries, it was found out that being married, is negatively associated with female employment

(Patacchini et al., 2013). The researchers found out that in countries where social norms governing women are high, there is a disparity in the employment rates of married men and women.

The findings above indicate that marriage has both positive and negative effects on employment outcomes; and the inactivity rate of women in particular in the formal sector tells a lot about the social customs of the society, attitudes towards women in employment and family structures in general (Verick, 2014). The findings of (Faridi et al., 2009) contradicts that of (Yakubu, 2010; Roopnarine & Ramrattan; 2011; Patacchini et al., 2013) which also contradicts the general perception that married women are less likely to be employed.

2.3.4 Education and Employment

Education prepares people for the job market and a key for state prosperity (Berger & Fisher, 2015). People who are better educated are more likely to be employed than those who have low levels of education with the latter individuals been forced to be self-employed (Ghana Statistical Service, 2014). Higher levels of education are associated with greater labour market success which at the end opens doors for individuals to be in a better position and escape from unemployment (Winters, 2018). Developing countries like Ghana, have placed so much emphasis on education and skill training because education is the surest way to reduce unemployment and increase the productivity level of the country (Rolleston, 2009).

Baah-Boateng et al. (2013) studied the influence of fertility and education on female labour force participation in Ghana using the fifth round of the Ghana Living Standards survey and it was identified that women with basic, secondary and tertiary education have a higher tendency of being in the workforce compared to women with no education at all.

The study done on the socio-economic and demographic determinants of women work

participation in Pakistan identified that female employment increases with higher levels of education especially for women who have acquired tertiary education (Faridi et. al., 2009a). The researchers suggested that since more rural women were lagging behind in education, the government should provide quality education and training opportunities for females so women can be exposed and acquire the needed skill for employment which can help reduce unemployment.

Faridi et al. (2009b) analysed the determinants of male labour force participation and employment status in Pakistan. The findings indicated that education significantly influences employment rates of males in the labour force and their employment sector outcomes. The researchers concluded that education is an important factor that reduces underemployment and casual employment.

Female education attainment improves employment sector outcomes in both developed and developing countries. In a probit and multinomial logit models on female labour participation by Sackey (2005), the results show that the education of females exerts a positive impact on their employment outcomes in rural and urban areas.

Sackey & Osei (2006) also observed that basic and senior secondary levels of education are associated with relatively higher unemployment in Ghana due to the relatively lower level of skills and techniques acquired as compared to those with tertiary education. The researcher proposed that one way to improve female human capital is for government policies to help bridge the gender gap in education as (Mussida & Picchio, 2014) find evidence of sticky floors at low levels of education and glass ceilings at higher educational attainment mostly in favour for women.

Findings from (Yakubu, 2010), using a logistic regression model to study the factors that influence female labour force participation in South Africa, reveals the importance of female education in enhancing employment and labour force participation. The researcher calls for the

need for more education and training of women as pointed out that increasing the education of females does not only increase their productivity in the formal sector but also results in greater employment rates, late marriages, lower fertility and greatly improved child health and nutrition (Mishra & Retherford, 2000; Baah-Boateng, et al., 2013).

Empirical studies done by Siphambe & Motswapong (2010) using the 2005/06 labour force survey data of Botswana to investigate the determinants of female employment rates in Botswana and the employment sector preferences; the results show that higher education increases females' probability of being employed, especially in the formal sector. The results also show that education plays a role in determining the sectors of the economy where females choose to work. For instance, the researchers found out that educated females prefer to work in the formal sector as compared to informal and unpaid family work. The researchers argued that this may be because education gives access to better opportunities in wage employment that are relatively secure and provide stable income.

The findings from all of the above articles are consistent with each other, suggesting that education is positively correlated with employment.

2.3.5 Place of Residence and Employment

Studies done by Uraz, Aran, Husamoglu, Sanalmis, & Capar (2010), used three different household-level data sources in Turkey for the period 2003-2006 to analyse trends and profiles of women employment in Turkey. The results indicated that urban women at working age have fewer employment rates (21.4%) than rural women (35.8%). The researchers also observed that the difference between the employment rates of females in urban and rural areas increases after the age of 29 years; and reduces after the age of 60 years. In the same analysis, the researchers found out that male employment does not significantly differ across urban and rural areas for young men up to the age of 45 years, but falls sharply for urban men after that age.

In a study done on female labour force participation in Botswana by Siphambe & Motswapong (2010), findings from the study indicated that females who live in urban areas are more likely to be employed than women who live in rural areas. According to the researchers, the possible reason for this observation is that in urban areas there are more job opportunities for women as compared to the rural areas so females have a variety of choice to make, hence, they are more likely to be employed but more in the informal sector in the urban areas.

Ali & Tasnim (2009), studied labour force participation of married women in Punjab, Pakistan. The researchers used the probit model to examine the factors that influence the decision of married women within the age group of 16-60 years of being employed. The results indicated that rural women are more likely to be involved in one economic activity or the other as compared to urban women. The researchers attributed this observation to the weak financial background, larger family size of rural household families and general work environment on farms in rural areas which allows women to work. This result is similar to the findings of (Uraz et al., 2010) but contradicts the findings of (Siphambe & Motswapong, 2010). This suggests that location can influence employment rates either positively or negatively depending on socio-demographic characteristics.

A person's geographical location of residence has further been observed to be a determinant of unemployment. For instance, (Dickens & Lang, 1995) observed that unemployment is usually more likely to exist in urban areas. In Ethiopia, studies were done by Guarcello & Rosati, (2007), Berhanu et al., (2005); Serneels (2007); Krishnan et al., (1998) on urban labour market outcomes. Findings from these studies indicate that levels of unemployment are very high in urban areas.

AfDB et al. (2012) also estimated the urban unemployment rate to be extremely higher than in rural areas in sub-Saharan Africa. According to Serneels (2007) in his descriptive analysis of the effects of individual characteristics on urban youth unemployment in Ethiopia, it was

reported that urban areas in Ethiopia had one of the highest unemployment rates in the world. Residing in an urban area relative to rural localities increases the probability of being unemployed (Sackey & Osei, 2006).

2.3.6 Religion and Employment

Religion has been one of the factors that affect the employment rates of individuals. H'madoun (2010), studied the influence religion has on women's employment across 48 countries. The researcher examined how the employment rates of women within the ages of 18 and 55 years are affected by religious affiliation, the intensity of belief and participation in religious services. Compared to a reference category of no religion, the results indicated that Hindus and Muslims have the least probability to have paid work. The writer argued that the way in which the Islam and Hindu faith traditions were shaped over time due to historical circumstances explains the effect it has on female sector employment decisions today.

In another study done by Bayanpourtehrani & Sylvester (2012), the researchers empirically examined female employment in a cross-section of countries between 1985 and 2005 and the results indicated that there was a variation in relation to the religion practised in those countries. The initial results by the researchers showed that employment rates for women were lower in Muslim countries. However, after introducing some control variables, the researchers realized that the association between Islam and female employment is similar to that of Christians and female employment rates. The researchers also found out that female labour force participation and employment is higher in countries where Protestantism is common and in places where individuals practised no religion.

Pastore and Tenaglia (2013) also analysed the impact of religion on female employment and labour force in forty-seven (47) countries in Europe. The researchers used data on women aged between 18 and 60 years, drawn from the 2008 European Values Study (EVS). The researchers

found out that women who belong to the Orthodox and Muslim denominations are less likely to be employed while being an agnostic or protestant increase the likelihood of being employed. The authors noted that in the doctrines of all religious denominations, women are considered to be particularly good in performing home care activities. Women are expected to give priority to work within the family, rather than outside of the family. For this reason, women who are educated on the basis of their religious doctrines may not be interested in entering the labour market and being employed.

2.4 THEORETICAL FRAMEWORK

This study seeks to use three theories to help understand sex differences in employment. They are the human capital theory, social role theory and liberal feminist theory. These theories play roles in decision making on issues pertaining to employment and how to approach them.

2.4.1 HUMAN CAPITAL THEORY

The Organization for Economic Cooperation and Development (OECD, 2001) describes human capital as “the knowledge, skills, competencies, and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being.”

The human capital theory according to Pierce-Brown (1998) has been extensively used by labour economists since the 1960s. The human capital theory suggests that the higher an individual’s level of education, the greater his or her probability of entering the labour market and being employed. Human capital theory regards education as an investment in human capital because of the expected returns to be reaped later in life (Becker, 1964).

This theory postulates that individuals in the society become more productive, skilled and well-equipped with knowledge as their level of education increases. It is argued that an individual’s level of education even determines his or her wage level in the labour market.

The theory postulates that women with middle-school education or higher are more economically active than those without formal education (Nam, 1991). In addition, female educational attainment does not only have a positive effect on economic outcomes like income, productivity and wages but also, it has a positive effect on social outcomes like fertility, mortality, education of their children and life expectancy at birth.

Investment in education as the human capital theory proposes has a multiple ripple effect on economic development, productivity and innovation. This theory helps to explain the conceptual framework in figure 2.1.

2.4.2 SOCIAL ROLE THEORY

The Social Role theory argues that men and women behave differently in social situations and assume different roles, due to the social institutions created for them. For normalcy to exist in any given social relationship or for any social interaction to run smoothly, it is imperative or critical that both role occupants understand their social position, share the behavioural expectations associated with their positions in society (themselves and others as well), and, for the most part, enact those expectations and scripts. Injunctive norms describe the expectations about what people ought to do ideally. When it comes to employment, the traditional norm is that married women spend more time on unpaid home jobs and care for children rather than men. Society has accepted that the man is the breadwinner, hence he should provide all the essential needs at home making more married men dominate the labour market. This theory helps to explain why some women are discriminated against in some roles but not with others. Descriptive norms, on the other hand, are expectations about what people actually do. These norms are dynamic in nature and it is in contingent with modern norms. The narrative on female education, marriage among other factors have seen a twist due to globalization causing more women to enter the labour market and be employed either in the formal or informal sector so they earn a living for themselves.

2.4.3 LIBERAL FEMINISM THEORY

The study on the determinants of employment in paid jobs has its root cause in Liberal feminism theory, Marxist feminism theory, Radical feminism theory and Social feminism theory. Liberals believe that freedom is a fundamental value hence liberal feminist believe and share in this view of freedom for women. These theories consider the contribution of women in employment as unequivocal because women should also have the liberty to be employed and engage in the economic development of the country.

According to Foreman (1977), the participation of women in the labour market and employment is always a sign of happiness and relaxation for men which helps to ease some economic burden on them. Moreover, according to Behrman & Zhang (1995), the productive contribution of women in the workforce means the participation of women in economic development which helps nations to grow.

2.5 CONCEPTUAL FRAMEWORK

The conceptual framework is formed from reviewing literature and theories obtained on the theme of study. The main dependent variable or outcome variables of the study are employment (employed and unemployed) and a further break down of those employed into the employment sector (formal and informal sector). The explanatory variables are sex, education, age, place of residence, religion, literacy level and region.

These variables posited to be exposure or enabling factors that account for sex differences in employment in Ghana include sex, education, age, place of residence, religion, literacy level and region which pertains to the setting of employment in Ghana. Possible pathways of interactions are presented in the conceptual framework. For instance, each of the control and

independent variable could influence the main outcome directly which happens to be the employment status and employment sector.

All the factors in the framework conceptualizing employment status and employment sector were chosen because they have shown a relationship in prior research (Magidu 2010; Baah-Boateng et al., 2013; Faridi et al., 2009; Sackey & Osei, 2006) which maybe amenable to intervention and were available in the survey.

Sex is expected to play a critical role in, and have a direct relationship with employment, as shown in Figure 2.1. For instance, males are more likely to be employed than females. This is due to some societal norms that negatively affect women's employment rates and also due to the fact that females, especially married ones, often spend a lot of their time on family responsibilities, such as caring for children and older relatives.

With references to age, the conceptual framework in Figure 2.1 establishes that age has a direct relationship with employment. The working age population under 25(18-24) years, are expected to be less likely to be employed as compared to those between 25-54 years. This is due to the fact that most of the people within the former age group are expected to be in school still or undergoing training to be equipped with employable skills, whereas most of those in the latter category are expected to have completed their education and training and therefore, would be available for work. Those within age 55-60 years are also expected to be less likely to be employed because most of them, may be due for retirement. Some are also expected to be forced out of the labour force due to poor health and weakness associated with ageing. Therefore, 25-54 years is expected to be the prime time for employment.

Figure 2.1 again, establishes a direct relationship between marital status and employment. For the

purpose of this study, marital status is categorised into married, consensual, separated, divorced, widowed and never married. Individuals who are currently married are more likely to be employed than those who have never married. This is due to the fact those who are currently married are likely to bear more responsibilities, such as providing the needs of their children and sometimes, supporting relatives of their spouses, as compared to those who have never married. However, among the married people, married men are more likely to be employed than married women, due to the fact that the latter spend time caring for children and older relatives.

An individual's level of education is also expected to have a direct relationship with employment as shown in Figure 2.1. More often, highly educated people are likely to be employed than those with low level of education, or those with no education. Also, men are more likely to be working in the formal sector than women. Men often seek employment in the formal sector, and are more likely to take up high level occupations as compared to women who more often have lower levels of education.

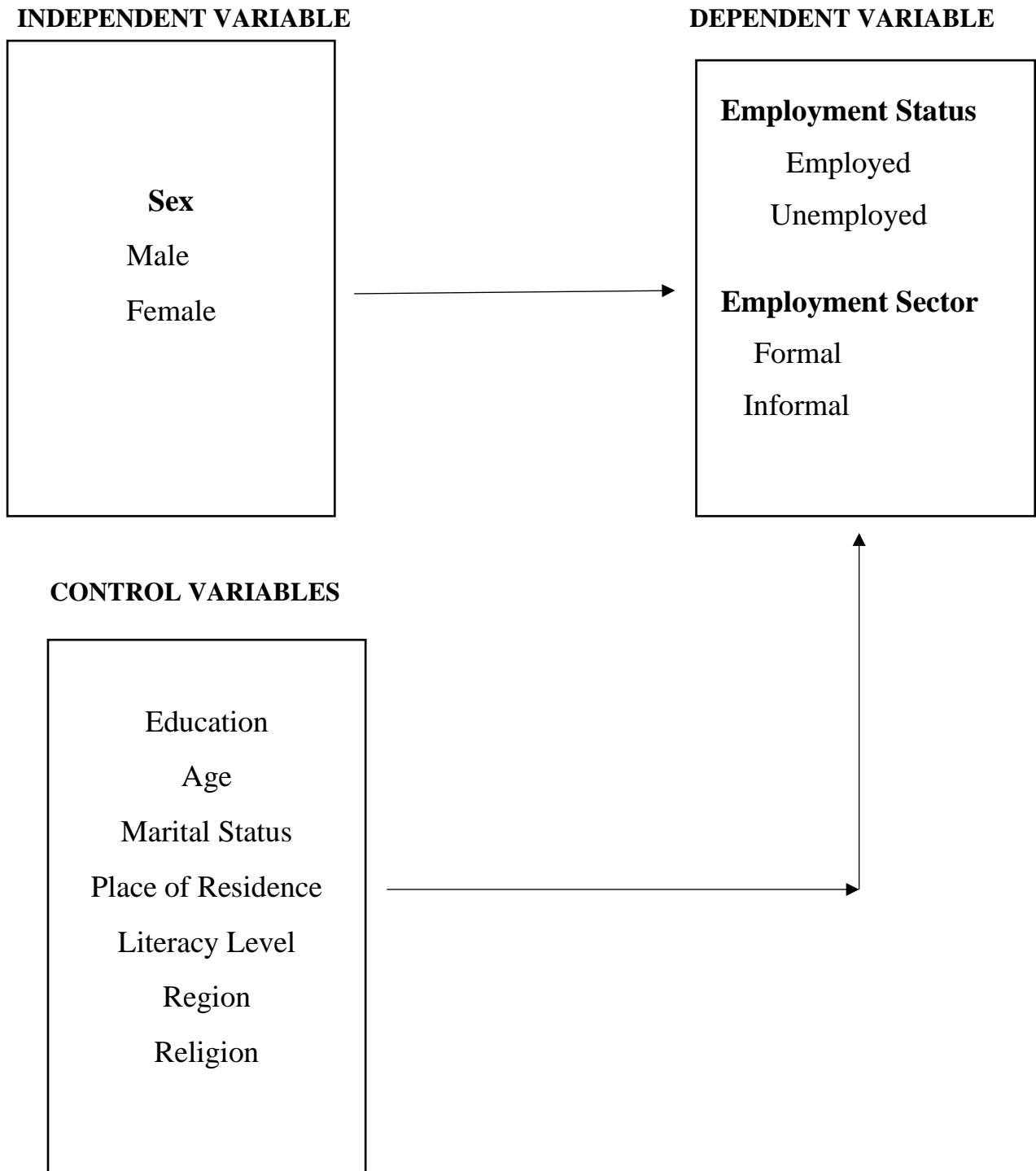
Regarding place of residence, a higher proportion of people in rural areas are expected to be employed than their urban counterparts. This is because the majority of rural residents are expected to engage in the informal sector of the economy, taking up occupations in agriculture, craft and related work, which are readily available in rural areas, and do not necessarily require any special skills. Majority of their urban counterparts are, however, expected to be engaged in or seek work in the formal sector, which require some special skills, and where jobs are quite difficult to find.

Region of residence is also expected to have direct influence on employment, as established in Figure 2.1. Higher proportion of people in regions that are more developed such as Greater Accra and Ashanti are expected to have a large chunk of their members employed as compared to that of people in less developed regions such as Upper East and Upper West. This is due to the fact that the more developed regions have better employment opportunities than the less developed ones.

Religion also influences employment directly in Ghana, as established in Figure 2.1. This is due to the fact that some religious group in Ghana such as Christians and Muslims are very intense with their religious beliefs as compared to those that are non-religious or even traditionalists. Research has also shown that the rate at which people are employed reduces with intensity of involvement in religious activities (Hamadoun, 2010). People who belong to religious groups that take their beliefs seriously maybe less likely to participate in the labour force and be employed

Literacy level is also a vital factor that influences the employment rates of individuals because it requires a minimum level of education. As seen in Figure 2.1, literacy has a direct effect on the employment rates of individuals because the ability to read and write in English and or any Ghanaian Language has the probability of effecting ones employment rate.

FIGURE 2.1: CONCEPTUAL FRAMEWORK OF SEX DIFFERENCES IN EMPLOYMENT IN GHANA



Source: Adapted from the Human Capital Theory (Becker & Garry, 1964)

2.6 SUMMARY

In order to analyze the determinants of sex differences in employment in Ghana there was the need to understand the various factors that account for the preferred employment status and sector of a particular sex. This chapter focused on literature necessary for the study. It also highlighted the various socio-economic and demographic factors that account for sex differences in employment in Ghana. It went on to consider some theories and conceptual definitions relevant for the study of sex differences in employment in Ghana.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

A research methodology is a set of established forms, techniques, or specific procedures used to first identify, select, process and analyse all the necessary information about a research topic. This chapter provides information on how the data used in this research was collected, how the sample was selected, the variables employed and methods used in analysing the data. It further explains the dependent variable and explanatory variables and how they are measured. The software package used in analysis and models is also described. In summary, this chapter touches on the source of data, study subjects, data analysis, measurement of variables and limitations inherent in the data.

3.2 SOURCE OF DATA

This study uses secondary data from the seventh round of the Ghana Living Standards Survey (GLSS 7). The GLSS is a nationally representative household survey which is designed to generate knowledge on the living conditions in the country (Ghana Statistical Service, 2014). The Ghana Living Standard Survey has been conducted since 1987. The GLSS 7 was conducted to elicit information on the poverty indicators in Ghana and identify strategies to help reduce poverty levels in the country.

The seventh round of GLSS was carried out over a 12-month period to ensure that there was a continuous record of household consumption, expenditure and changes that occur at the household level pertaining to their living standards. The survey collected detailed information on household income and consumption, and socio-demographic characteristics such as education, health, fertility behaviour, employment and time use, migration and tourism, housing

and housing conditions, access to financial services and asset ownership.

The results obtained from the survey are utilized by policymakers and implementers, researchers, non-governmental organizations and the general public.

3.3 SAMPLE DESIGN AND SAMPLE SIZE

The survey sampled 15,000 households countrywide and out of this number, 14,009 were interviewed successfully.

The rural and urban areas within each region were identified as the main sampling strata. The sample was selected at two stages using the census enumeration areas as a guide. The sampling frame was the 2010 Ghana Population and Housing Census and the census enumeration areas were selected using the systematic probability sampling technique. Five Hundred and Sixty-One (43.9%) enumeration areas were rural and Four Hundred and Thirty-Nine (56.1%) were urban.

The sample size for this study is 22,387. This is the sample size of the employment status representing those who are employed and those who are unemployed. The total number of those employed is 19054. This was arrived at after those who are employed were deducted from those who are unemployed in the employment status. For the employment sector, 19054 were selected out of those who are employed to get the formal or informal sector of employment.

STUDY SUBJECTS

DEFINITION OF KEY TERMS

3.3.1 Employment

Employment is a situation whereby a person is engaged in any kind of work or has an attachment to a job or business (Ghana Statistical Service, 2014).

3.3.2 Formal Sector/ Formal Employment

The formal sector is an organized system of employment with clear written rules of recruitment, agreement and job responsibilities. The formal sector has a formalized relationship between the employer and the employee which is maintained through a formal contract. In the formal economy, the employee is expected to work for fixed hours and receives fixed salaries in addition to other incentives. People working in civil service, public sector units, government service, defence, multi-national/national/private companies, schools, colleges, research institutes, management organization, banks etc. are all in the formal sector.

3.3.3 Informal Sector /Informal Employment

The informal sector has no written rules or agreements. It exists merely on verbal understanding. There are no fixed wages or fixed hours of work and mostly relies on daily earnings. In most cases, the work atmosphere is congested and unhygienic. They have poor awareness levels regarding social protection schemes, they are unable to make savings because of low minimum level wages, sub-standard working conditions and lack of social security (Comola & de Mello, 2013; Khamis & Akay, 2011). People working as small farmers, street vendors, hawkers, small traders, micro-entrepreneurs, home-based workers, cobblers, rag-pickers, porters, labourers, artisans, etc. all belong to the informal sector.

3.3.4 SAMPLE SELECTION

Persons who were employed or unemployed in the labour force with age ranging from 18-60 years were selected because these are individuals considered to be in legal working age in Ghana.

3.3.4.1 EXCLUSION CRITERIA

The exclusion criteria were done on the basis of individuals who were below the age range of 18

years and above the age of 60 years because those who were below 18 years could not be legally employed and those who are above 60 were regarded to have hit their retirement age according to the labour laws of Ghana. Persons who are not in the labour force because they are not “actively” looking for employment were also excluded from the study.

3.4 MEASUREMENT OF VARIABLES

For this study three types of variables were used: the dependent variables, independent variables and control variables.

3.4.1 DEPENDENT VARIABLE

The dependent variables for this study are employment status and employment sector. The first dependent variable in this study looks at the employment status of the individual be it employed or unemployed. In the survey, questions were asked on an individual’s employment status and codes were given to the responses in the dataset. The economic status was categorised as employed (economically active) and unemployed (non-economically active). Further on, the employment sector which looks at the category of employee that are economically active was looked at. The categorization was further grouped into a public employee, private employee and self-employed (non-agriculture and agriculture) which was later recorded as the formal and informal sector.

3.4.2 INDEPENDENT VARIABLE

The focal independent variable of the study is sex which is categorized as male and female.

3.4.3 CONTROL VARIABLES

The control variables are education, marital status, region, religion, age, place of residence and literacy level.

3.4.3.1 AGE

Age was recoded into a categorical variable. It was categorized into those under 25, 25 through 34, 35 through to 44, 45 through to 54 and 55-60.

3.4.3.2 MARITAL STATUS

The GLSS collected information on current marital status for all respondents aged 15 years and above, by asking the question “What is your marital status?” The marital status in the initial study had previous codes as; Married, Consensual union, Separated, Divorced, Widowed, and Never- married. The variables were maintained as was in the original data.

3.4.3.3 RELIGIOUS DENOMINATION

The religious denomination of individuals was initially in 9 categories. The religious denomination was originally coded as; No Religion, Catholic, Protestant, Pentecostal/Charismatic, Other Christian, Islam, Ahmadiya, Traditional and other. The categories were recoded as Christian, Islam/Ahmadiyya, Traditional and No religion.

3.4.3.4 EDUCATIONAL ATTAINMENT

The GLSS measures formal education using the variable if the individual has ever been to school. Educational attainment was then recoded as No education, Primary, JHS/Middle, SHS/Secondary, College education and Tertiary/Higher.

3.4.3.5 REGION

The ten (10) administrative regions in Ghana are categorized as in the original dataset. The regions are Western, Central, Greater Accra, Volta, Eastern, Ashanti, Brong Ahafo, Northern, Upper East, and Upper West.

3.4.3.6 PLACE OF RESIDENCE

Place of Residence is defined in this study as it is in the survey as a distinct population cluster (also designated as inhabited place, populated centre and settlement) with a name or locally recognized status. It is categorized as urban (localities with 5,000 or more persons) and rural (localities with less than 5,000 persons).

3.4.3.7 LITERACY LEVEL

Literacy level is defined as the ability to read English and any local language. The question of “Can you read a phrase in English or any Ghanaian Language?” was asked and flashcard was used for confirmation to identify the literacy level of respondents.

3.5 METHOD OF DATA ANALYSIS

The study in quantitative research form used the Statistical Package for the Social Sciences (SPSS) version 21 and Microsoft Excel as tools for analysis. The analysis was done at three levels; univariate, bivariate and multivariate level of analyses.

The univariate analysis was used to describe the background characteristics of the study sample. This was carried out by statistically tabulating frequencies, percentages and graphs (pie and bar graphs) of the background characteristics of the respondents who are employed separately.

Bivariate analysis was carried out to examine the relationship or association between the predictor variable (employment status and the employment sector), the predicted variable sex, age, marital status, level of education, region of residence, place of residence, literacy and religion. The significance of association was tested using the chi-square test at alpha level 0.005 (95%) confidence level.

At the multivariate analysis level, binary logistic regression was used because the dependent

variable is dichotomous which was measured as (employed or not employed and further the breakdown of the forms of employment they were involved in. Be it in the formal or informal sector). For each predictor variable, a reference category, (the first category) was selected from all the available categories. The binary logistic regression was run using the Statistical Package for the Social Sciences (SPSS) software, based on the enter method (entering all the independent variables at the same time).

3.6 DATA LIMITATIONS

The study was not without constraints. Information on the number and ages of children of respondents was not available. Studies have established that most women are unemployed mostly because of the role they play at home as caregivers of children and home-caretakers which negatively affects them when it comes to employment. The dataset collected information on the number and ages of children from the head of household. In spite of this limitation, however, the selected variables for the study are expected to yield important findings concerning sex differences in employment in Ghana.

3.7 SUMMARY

This chapter focused on the method and techniques used for the study. The study began by discussing the research paradigm for the study. It then proceeded to discuss the source of data. The 2016/2017 Ghana Living Standards Survey (GLSS 7) constitutes the dataset employed in the study. The sampling techniques, measurement of variables and method of data analysis were also discussed. The method of data analysis to be used consisted of univariate analysis, bivariate analysis and binary logistic regression. The aim is to be able to capture the factors that account for sex differences in employment in Ghana. It also presented the limitations of the study.

CHAPTER FOUR

SOCIO-DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS OF THE STUDY POPULATION

4.1 INTRODUCTION

This chapter presents the outcome of univariate and bivariate analyses of the variables in the conceptual framework. The purpose of the univariate analysis is to describe the background characteristics of the respondents. Results of the descriptive analysis are presented using graphs and tables to provide information on the frequencies and relative proportions of the various categories of the variables in the study.

The bivariate analysis examined the relationship between individual socio-demographic characteristics and employment. Each independent variable was run against the dependent variables employment status and employment sector. This analysis showed the extent to which each of the designated variables were related to employment. The strength of the relationship between each independent variable and the dependent variable were investigated using the Pearson chi-square test at 5% significance level.

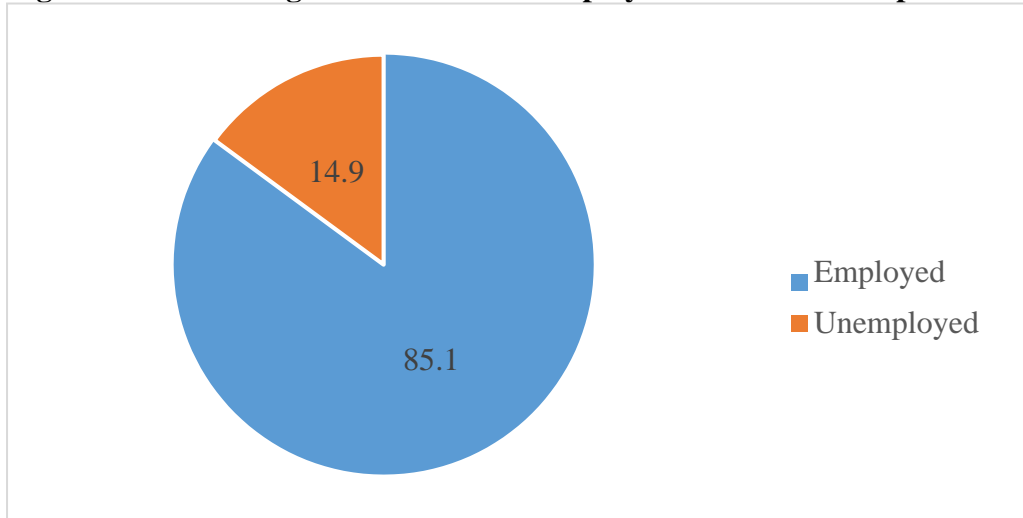
4.2 UNIVARIATE ANALYSIS OF EMPLOYMENT STATUS.

This section describes the individual distribution of the variables in the study for the first dependent variable which is the employment status.

4.2.1 EMPLOYMENT STATUS OF RESPONDENTS

Figure 4.1 shows that those who are employed constitute (85.1%) while those who are unemployed constitute (14.9%). This distribution is consistent with statistics showing fairly high level of employment in the world (ILO, 2018).

Figure 4.1: Percentage Distribution of Employment Status of Respondents

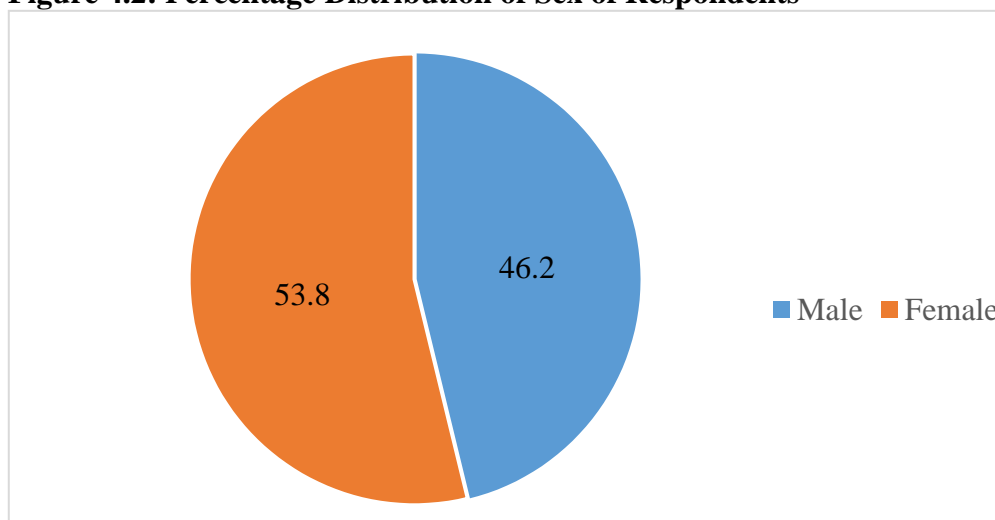


Source: Computed from GLSS 2016/2017

4.2.2 SEX OF THE RESPONDENTS

Figure 4.2 shows the distribution of the population by sex. It shows that a slightly higher proportion of the respondents are females, constituting 53.8%, while males make up the remaining 46.2%. Employment is expected to be higher among males than females. This is because quite a significant proportion of women are likely to be engaged with family responsibilities such as caring for children and other home-care duties which conflicts with women's employment because of the time and energy involved.

Figure 4.2: Percentage Distribution of Sex of Respondents



Source: Computed from GLSS 2016/2017

4.2.3 AGE OF THE RESPONDENTS

The respondents' age is presented in Table 4.1. From the table, the highest proportion of the study population falls within 25-34 years, considered as the youthful age group. This constitutes 26.8% of the population. Also, about 25% of the population are 35-44 years old. This constitutes the second-highest proportion of the respondents. 22.4% are under 25 years old, 18.0% of them fall within 45-54 years, and the lowest proportion 8.1% are within 55-60 years.

Table 4. 1: Percentage Distribution of Age of Respondents

Age	Frequency	Percentage(%)
Under 25	5013	22.4
25-34	5995	26.8
35-44	5537	24.7
45-54	4037	18.0
55-60	1805	8.1
Total	22387	100.0

Source: Computed from GLSS 2016/2017

Employment is expected to increase with age, reach a peak and then decrease. Therefore, employment is expected to be high among those within ages 25-34, 35-44, 45-54 years and low among those under 25 years and 55-60 years.

4.2.4 MARITAL STATUS OF THE RESPONDENTS

This section presents the characteristics of the population by marital status. From Table 4.2, 25% of the respondents have never been married. Also, approximately 55% are currently married. This represents the highest proportion of the population in this category. Those in consensual union are 9.7% and those who are separated constitute the least proportion of respondents being 29%. The results suggest that nuptiality is high among the Ghanaian population looking at the high level of marital rates recorded in the study.

Table 4. 2: Percentage Distribution of Marital Characteristics of Respondents

Marital Status	Frequency	Percentage (%)
Married	12254	54.7
Consensual Union	2169	9.7
Separated	649	2.9
Divorced	755	3.4
Widowed	968	4.3
Never married	5592	25.0
Total	22387	100.0

Source: Computed from GLSS 2016/2017

4.2.5 EDUCATIONAL LEVEL OF RESPONDENTS

Education plays an important role in societal development. It is the process of acquiring knowledge, skills, values and attitudes to fully develop individual capacities for societal well-being (Yakubu, 2010; Baah-Boateng, 2014). There is, therefore, a relationship between education and a person's chance of being employed. Results from Table 4.3 show that 26.7% of the respondents in the sample have no education. Also, 14.8% have obtained senior high education. 15.9% have obtained primary education. The highest proportion, making up 32.4% have attained (Middle/ Junior High School) education and 5.9% have attained tertiary/higher education.

Table 4. 3: Percentage Distribution of Educational Level of Respondents

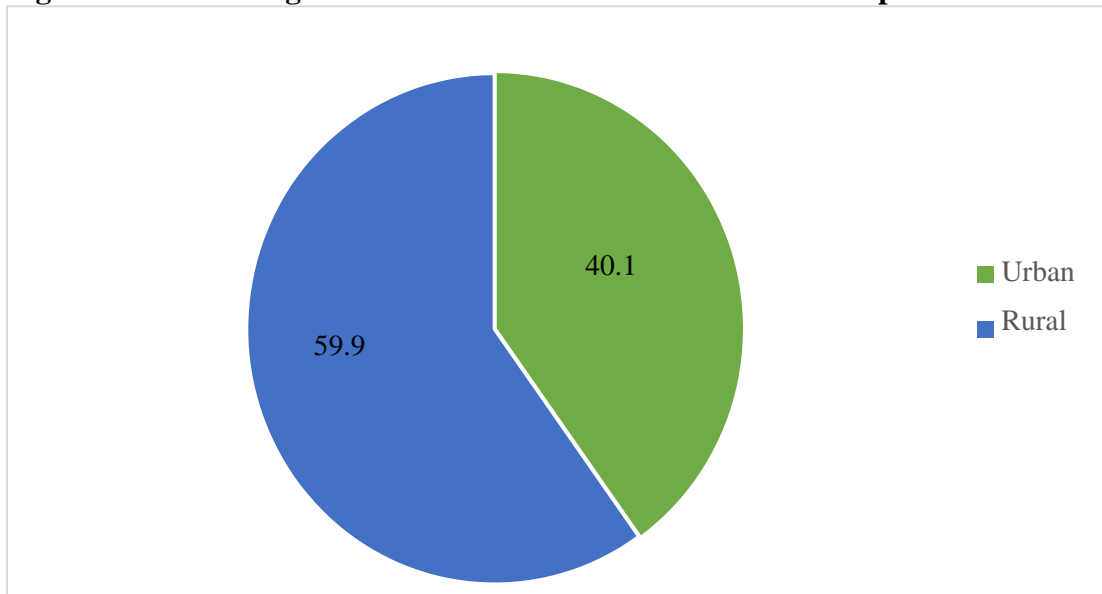
Educational Level	Frequency	Percentage (%)
No Education	5983	26.7
Primary	3566	15.9
Middle/JHS	7245	32.4
SSS/SHS	3321	14.8
College (Vocational, Nursing, Agric, Technical)	949	4.2
Tertiary /Higher	1023	5.9
Total	22387	100.0

Source: Computed from GLSS 2016/2017

4.2.6 PLACE OF RESIDENCE OF RESPONDENTS

This sub-section presents the distribution of the population in terms of place of residence, which is measured as rural and urban. From Figure 4.3, 59.9% of the respondents aged 18-60 years reside in rural areas while 40.1% reside in urban areas.

Figure 4.3: Percentage Distribution of Place of Residence of Respondents



Source: Computed from GLSS 2016/2017

4.2.7 REGION OF RESPONDENTS

Respondents of the survey were interviewed from all the ten administrative regions of Ghana. In line with the regional distribution of population in Ghana, the results displayed in Table 4.4 show that respondents from the Northern Region constituted the highest proportion (13.3%), followed by Upper East and Ashanti Regions with 10.6% and 10.4% respectively whilst those from Eastern Region constituted the lowest proportions (8.9%)

Table 4. 4: Percentage Distribution of Region of Respondents

Region	Frequency	Percentage (%)
Western	2142	9.6
Central	2073	9.3
Greater Accra	2111	9.4
Volta	2193	9.8
Eastern	2001	8.9
Ashanti	2338	10.4

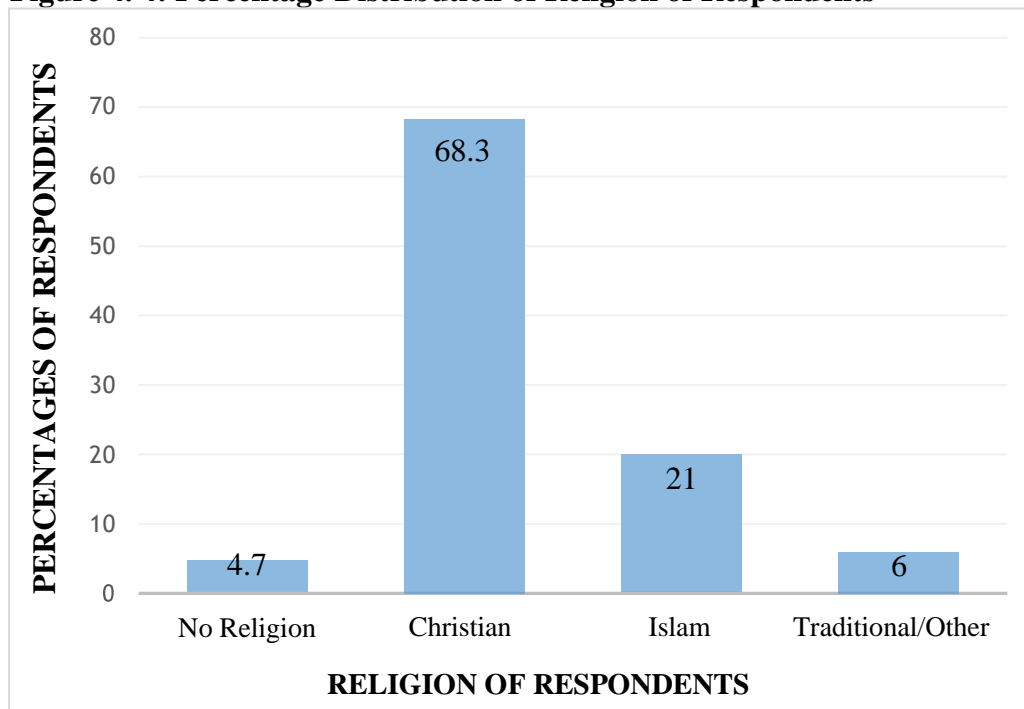
Brong Ahafo	2005	9.0
Northern	2983	13.3
Upper East	2379	10.6
Upper West	2162	9.7
Total	22387	100.0

Source: Computed from GLSS 2016/2017

4.2.8 RELIGION OF RESPONDENTS

Figure 4.4 presents the characteristics of the respondents by religion. Results from Figure 4.4 indicate that the highest proportion of the study population (68.3%) is Christian, followed by Islam constituting 21%. Traditionalist and other religions constituted 6%. The lowest proportion of 4.7% is made up of those with no religion.

Figure 4. 4: Percentage Distribution of Religion of Respondents

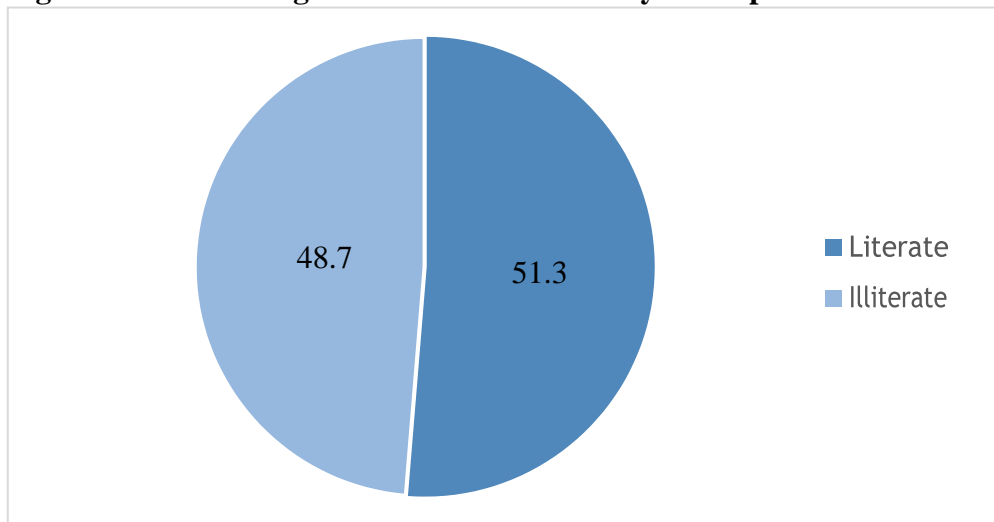


Source: Computed from GLSS 2016/2017

4.2.9 LITERACY LEVEL OF RESPONDENTS

Literacy level is also a vital factor that influences the employment rates of individuals because it requires a minimum level of education. From figure 4.5, 51% could read a short sentence in English and/or Ghanaian Language are considered as literate and 49% of respondents could not read a short sentence in English and or Ghanaian language are considered as illiterate.

Figure 4. 5: Percentage Distribution of Literacy of Respondents



Source: Computed from GLSS 2016/2017

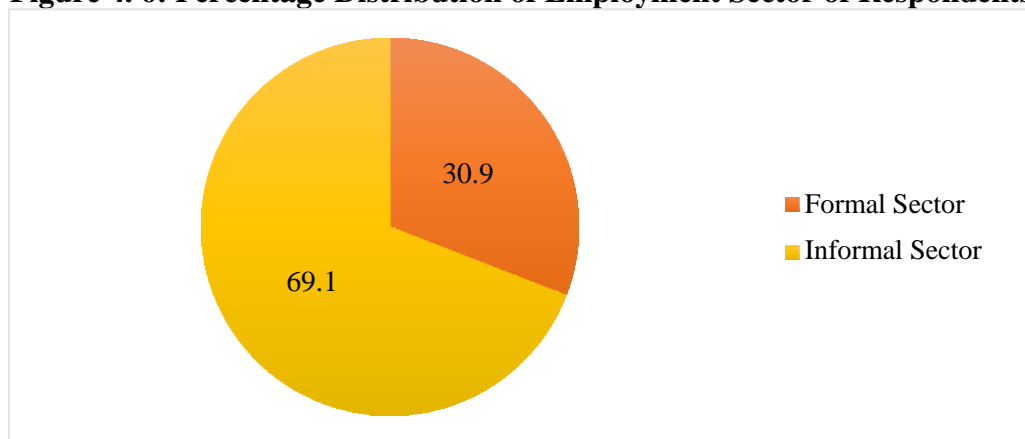
4.3 UNIVARIATE ANALYSIS OF EMPLOYMENT SECTOR

This section describes the distribution of individual variables in the study for the sample to analyze the second dependent variable which is the employment sector.

4.3.1 EMPLOYMENT SECTOR

Respondents' employment sector was categorized as formal and informal. From figure 4.6, those who are employed in the informal sector constitute the higher proportion (69.1%) while those who are in the formal sector constitute (30.9%).

Figure 4. 6: Percentage Distribution of Employment Sector of Respondents

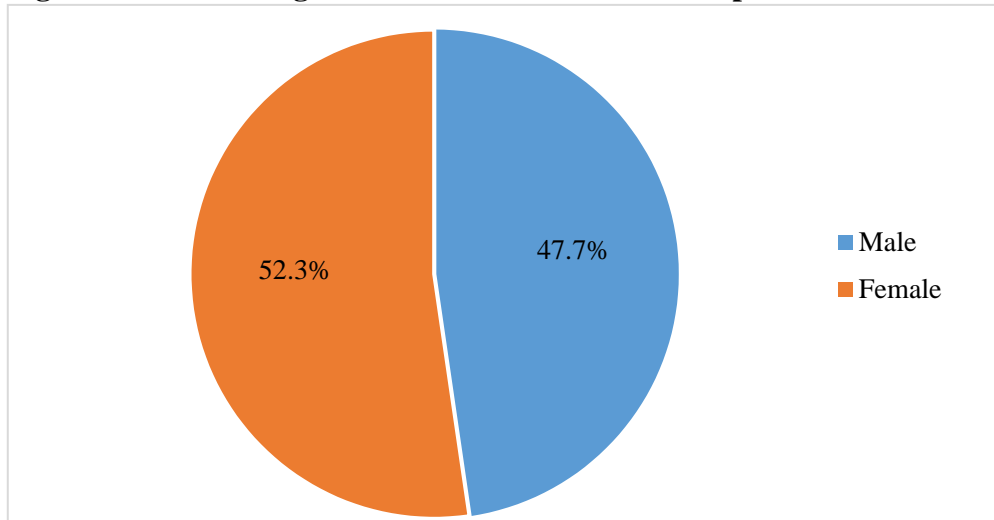


Source: Computed from GLSS 2016/2017

4.3.2 SEX OF THE RESPONDENTS

Figure 4.7 shows the characteristics of the study population by sex. It shows that a slightly higher proportion of the population are females, constituting 52.3%, while males make up the remaining 47.7%. Employment in the formal sector is expected to be higher among males than females. The home care duties of women, as well as other systematic barriers that affect women, serve as hindrances which affects and prevents more women from entering the formal sector.

Figure 4. 7: Percentage Distribution of Sex of the Respondents



Source: Computed from GLSS 2016/2017

4.3.3 AGE OF THE RESPONDENTS

The characteristics of the study population by age are presented in Table 4.5. From the table, the highest proportion of the respondents fall within 25-34 years, which is considered as the youthful age group. This constitutes 26.8% of the population. Also, 26.3% of the population are 35-44 years old. This constitutes the second-highest proportion of the respondents. Again 19.4% are under 25 thus 18-24 years old, 19.0% of them fall within 45-54 years, and the lowest proportion, constituting 8.5% are within 55-60 years, which is considered to be the older ages.

Table 4. 5: Percentage Distribution of Age of Respondents

Age	Frequency	Percentage (%)
Under 25	3689	19.4
25-34	5113	26.8
35-44	5007	26.3
45-54	3626	19.0
55-60	1619	8.5
Total	19054	100.0

Source: Computed from GLSS 2016/2017

4.3.4 MARITAL STATUS OF RESPONDENTS

This section presents the characteristics of the study population by marital status. This variable was considered because spousal support can influence employment rates. From Table 4.6, 22.6% of the population have never married. Also, approximately 57% are currently married. This represents the highest proportion of the population in this category. Those in consensual union are 9.9% and those who are separated constitute the least proportion of respondents being 3.0%.

Table 4. 6: Percentage Distribution of Marital Status of Respondents

Marital Status	Frequency	Percentage (%)
Married	10798	56.7
Consensual Union	1879	9.9
Separated	566	3.0
Divorced	684	3.6
Widowed	817	4.3
Never married	4310	22.6
Total	19054	100.0

Source: Computed from GLSS 2016/2017

4.3.5 EDUCATIONAL LEVEL OF RESPONDENTS

Results from Table 4.7 show that 26.6% of the respondents have no education. Also, 13.8% have obtained senior high school education. 16.1% have obtained primary education. The highest proportion, making up 33.0% have however, attained (Middle/ Junior High School) education and 6.1% have attained tertiary/ higher education. Several studies done by (Faridi et al, 2009; Yakubu, 2010; Baah-Boateng, 2014) have all established a positive relationship between education and employment.

Table 4. 7: Percentage Distribution of Educational Characteristics of Respondents

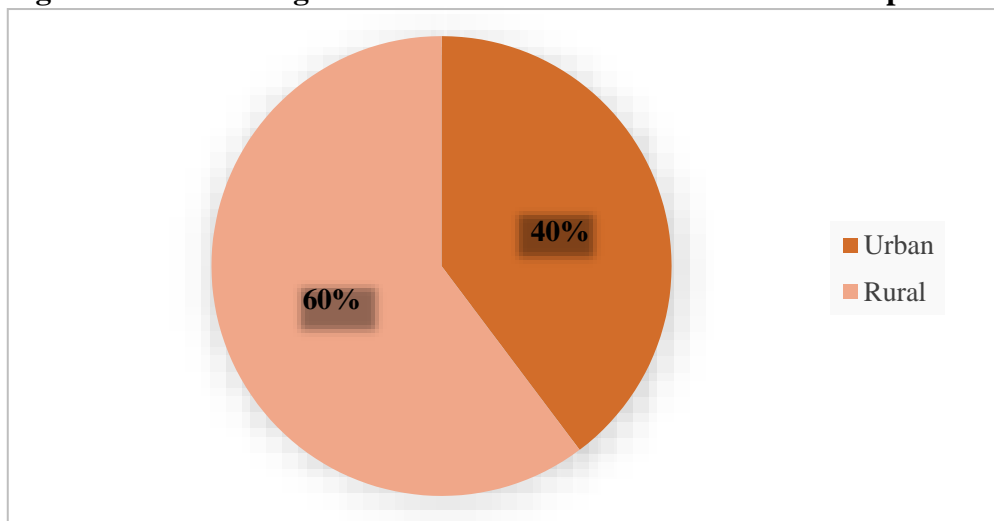
Educational Level	Frequency	Percentage(%)
No Education	5065	26.6
Primary	3076	16.1
Middle/JHS	6287	33.0
SSS/SHS	2629	13.8
College(Vocational, Nursing, Agric, Technical)	829	4.4
Tertiary /Higher	1168	6.1
Total	19054	100.0

Source: Computed from GLSS 2016/2017

4.3.6 PLACE OF RESIDENCE OF RESPONDENTS

This section presents the distribution of the study population for place of residence, which is measured as rural and urban. From Figure 4.8, 60% of the employed population aged 18-60 years reside in rural areas while 40% reside in urban areas.

Figure 4. 8: Percentage Distribution of Place of Residence of Respondents



Source: Computed from GLSS 2016/2017

4.3.7 REGION OF RESPONDENTS

Respondents of the survey were interviewed from all the ten administrative regions of Ghana. In line with the regional distribution of population in Ghana, the results displayed in Table 4.8 show that respondents from the Northern Region constituted the highest proportions (13.7%), followed by Volta and Ashanti Region with 10.5% and 10.5% respectively whilst those from

Upper West Region constituted the lowest proportion (8.6%).

Table 4. 8: Percentage Distribution of Regional Characteristics of Respondents

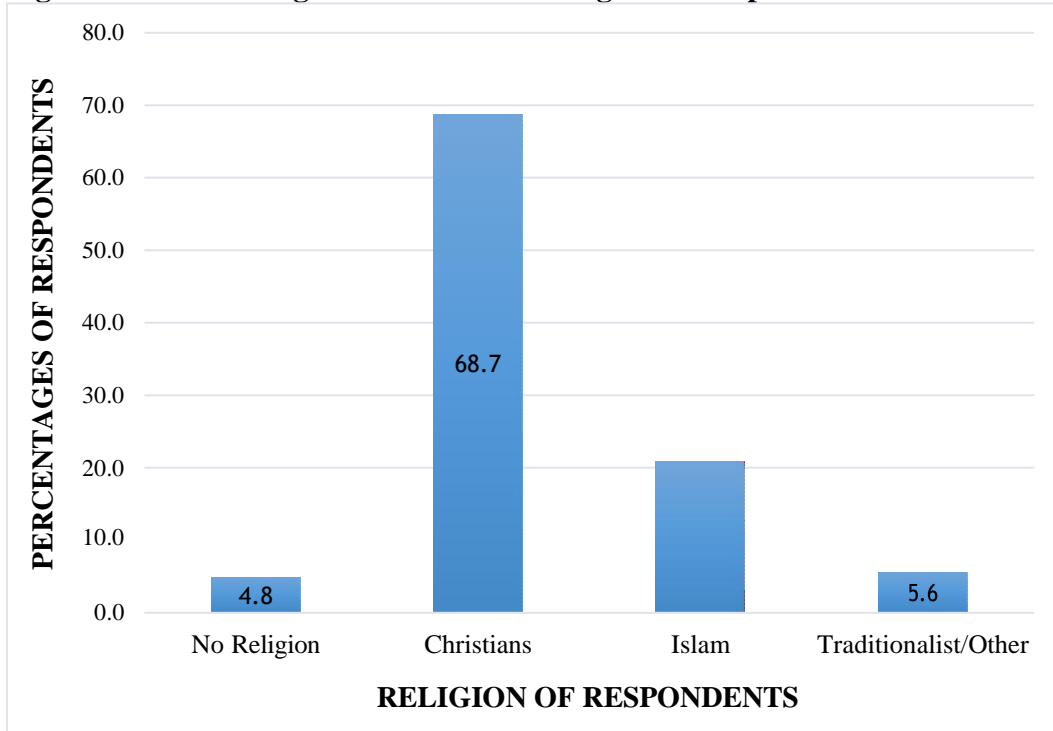
Region	Frequency	Percentage (%)
Western	1868	9.8
Central	1838	9.6
Greater Accra	1791	9.4
Volta	2004	10.5
Eastern	1753	9.2
Ashanti	2007	10.5
Brong Ahafo	1817	9.5
Northern	2610	13.7
Upper East	1722	9.0
Upper West	1644	8.6
Total	19054	100.0

Source: Computed from GLSS 2016/2017

4.3.8 RELIGION OF RESPONDENTS

Figure 4.9 presents the characteristics of the respondents by religion. Results from figure 4.9 indicate that the highest proportion of the respondents (68.7%) are Christians, followed by Islam, constituting 20.9%. Traditionalist and other religion constituted 5.6%. The lowest proportion of 4.8% is made up of those with no religion.

Figure 4. 9: Percentage Distribution of Religion of Respondents

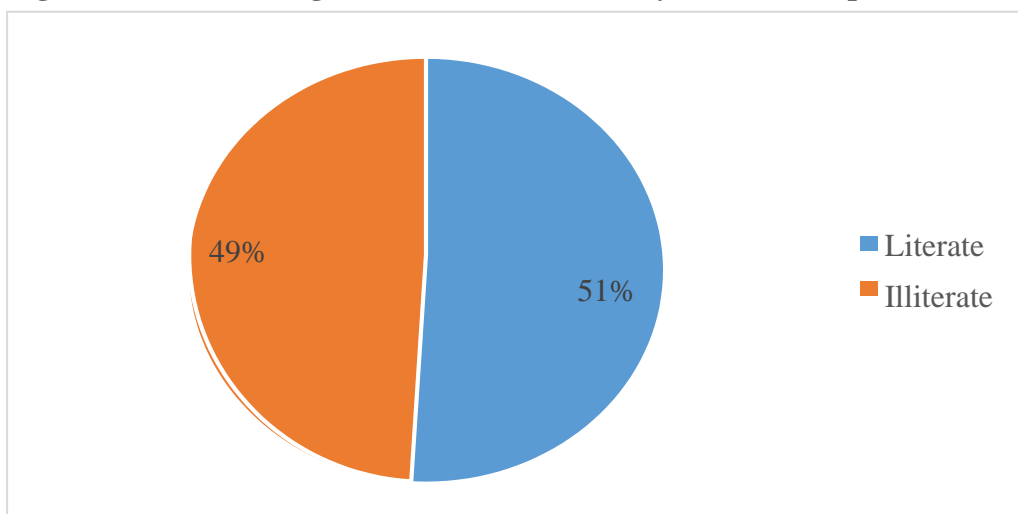


Source: Computed from GLSS 2016/2017

4.3.9 LITERACY LEVEL OF RESPONDENTS

Literacy level is also a vital indicator in employment sector outcomes of individuals because the literacy level requires a minimum level of education. From figure 4.10, a higher proportion of respondents (51%) could read a short sentence in English and/or Ghanaian Language whilst 49% of respondents who could not read are considered to be illiterate.

Figure 4. 10: Percentage Distribution of Literacy Level of Respondents



Source: Computed from GLSS 2016/2017

4.4 BIVARIATE ANALYSIS OF VARIABLES OF EMPLOYMENT STATUS AND INDEPENDENT VARIABLES

This section examines the association between the first dependent variable (Employment Status) and each of the independent variables using cross-tabulation. If the chi-square test produces asymptotic significance value less than 0.05, there is a significant association between the independent variable and employment status. All the variables selected namely sex of the respondents, marital status, age, place of residence, religion, education, region, except literacy level were significant.

4.4.1 SEX AND EMPLOYMENT STATUS

Studies done by Rahmah & Idris (2012); Magidu (2010) have suggested that females are less likely to be employed than males. Results from Table 4.9 below show that males have a higher probability of being employed than females. The proportion of males employed is 87.8%, slightly higher than females at 82.8%.

Table 4.9: Percentage distribution of Employment Status by Sex

Sex Individual	Employment Status		Total(N)
	Employed (%)	Unemployed (%)	
Male	87.8	12.2	10347
Female	82.8	17.2	12040
Total(N)	85.1	14.9	22387
Chi-square= 110.765 df =1 p-value=0.001			

Source: Computed from GLSS 2016/ 2017

4.4.2 AGE AND EMPLOYMENT STATUS

The chi-square test suggested that the age of the respondents is significantly associated with employment. The chi-square test score associated with this value was 749.5, with a p-value of 0.001. Employment is expected to increase with age, reach a peak and then begin to decrease. This expectation is confirmed by the results in Table 4.10. The results from Table 4.10 show

that people belonging to youngest age group, Under 25 (18-24 years) have the lowest proportion in employment, constituting 73.6%. The proportion then increases to 85.3% in the age group 25-34 years and reaches the highest level of 90.4% among those aged 35-44 years. It then began to reduce gradually, to 89.8 % in the age group 45-54 years and then to 89.7% in the oldest age group, 55-60 years

Table 4.10: Percentage distribution of Employment Status by Age

Age	Employment Status		Total(N)
	Employed (%)	Unemployed (%)	
Under 25	73.6	26.4	5013
25-34	85.3	14.7	5995
35-44	90.4	9.6	5537
45-54	89.8	10.2	4037
55-60	89.7	10.3	1805
Total	85.1	14.9	22387

Chi-square= 749.467 df =4 p-value=0.001

Source: Computed from GLSS 2016/2017

The results above are related to the findings of (Mei, 2014) showing that those under 25 years are less likely to be employed than those who are between the ages of 25 and 39 years. The researcher attributed this finding to the fact that those under 25 years might still be in school acquiring knowledge and skills to be help them enter the job market after school.

4.4.2 MARITAL STATUS AND EMPLOYMENT STATUS

The chi-square test conducted shows that statistically, there is a significant association with marital status and employment. Results from Table 4.11, reveals that married people had the highest employment rates of 90.6% followed by those who are divorced constituting 88.1% and those who are never married with the lowest proportion of 77.1%.

Table 4.11: Percentage distribution of Employment Status by Marital Status

Marital Status	Employment Status		Total(N)
	Employed (%)	Unemployed (%)	
Married	90.6	9.4	12254
Consensual Union	86.6	13.4	2169
Separated	87.2	12.8	649
Divorced	88.1	11.9	755
Widowed	84.4	15.6	968
Never married	77.1	22.9	5592
Total	85.1	14.9	22387

Chi-square= 396.994 df =5 p-value=0.001

Source: Computed from GLSS 2016/2017

4.4.3 PLACE OF RESIDENCE AND EMPLOYMENT STATUS

Place of residence is categorized into rural and urban. Most empirical studies done by Uraz et al. (2010); Serneels (2007) found out that rural residents are more likely to be employed than their urban counterparts. They attributed this finding to the weak financial background of the rural folks, large family size and the possibility of the rural folks working on farms. From Table 4.12, 85.7% of rural residents were employed. This is slightly higher than those who are in the rural areas and are employed which constitute 84.3%. The chi-square test of p-value=0.006 reveals that the place of residence is significantly not associated with employment statistically.

Table 4.12: Percentage distribution of Employment Status by Place of Residence

Place of Residence	Employment Status		Total(N)
	Employed (%)	Unemployed(%)	
Urban	84.3	15.7	8984
Rural	85.7	14.3	13403
Total(N)	85.1	14.9	22387

Chi-square= 7.702 df =1 p-value=0.006

Source: Computed from GLSS 2016/2017

A plausible reason is that rural residents are more likely to be engaged in farming and other agriculture-related activities, which does not require specialized skills. These type of jobs are readily available in the rural areas, as compared with urban residents who might need some level of skills in order to engage in some of the jobs available in the urban areas.

4.4.4 REGION AND EMPLOYMENT STATUS

Regional differences in terms of environmental factors and socio-economic development, in particular, are expected to bring about differences in employment. Regions such as Greater Accra and Ashanti, where there are better educational infrastructure and opportunities, as well as better employment opportunities, were expected to have high employment rates, as compared to the likes of Volta, Upper East and Upper West that do not have enough of such opportunities. From Table 4.13, the region with the highest proportion of employment is Volta (91.4%), followed closely by Brong-Ahafo with 90.6% and then Central with 88.7%. A plausible reason for the high employment rates in these regions is that they are predominantly rural, where farming, fishing and other agricultural activities are the main occupations of the people. This assumption is possible, considering the high employment rates of rural residents in the earlier analysis. Upper East recorded the lowest proportion in employment (72.4%), followed very closely by Upper West (76.0%) and then Greater Accra with (84.8%)

Table 4.13: Percentage Distribution of Employment Status by Region

Region	Employment Status		Total(N)
	Employed(%)	Unemployed(%)	
Western	87.2	12.8	2142
Central	88.7	11.3	2073
Greater Accra	84.8	15.2	2111
Volta	91.4	8.6	2193
Eastern	87.6	12.4	2001
Ashanti	85.8	14.2	2338
Brong Ahafo	90.6	9.4	2005

Northern	87.5	12.5	2983
Upper East	72.4	27.6	2379
Upper West	76.0	24.0	2162
Total(N)	85.1	14.9	22387

Chi-square= 613.045 df =9 p-value=0.001

Source: Computed from GLSS 2016/2017

4.4.5 RELIGION AND EMPLOYMENT STATUS

Results from Table 4.14 show that those with no religion are the highest proportion employed (87.2%), followed by those who are Christians (85.6%). The lowest proportion of 79.3% are those who are Traditionalist or practice other religion.

Table 4.14: Percentage distribution of Employment Status by Religion

Religion	Employment Status		
	Employed(%)	Unemployed(%)	Total(N)
No Religion	87.2	12.8	1050
Christian	85.6	14.4	15290
Islam	84.7	15.3	4701
Traditional/Other	79.3	20.7	1346
Total	85.1	14.9	22387
Chi-square=42.527	df=3	p-value=0.001	

Source: Computed from GLSS 2016/2017

4.4.7 EDUCATION AND EMPLOYMENT STATUS

Employment is expected to increase with level of education. Several studies done by Faridi et al, (2009); Yakubu, (2010); Sackey (2005) hypothesized and confirmed a positive correlation between education and employment. The results in Table 4:15; however is what was expected in the study and also supports what has been confirmed in most empirical studies. The results reveal that employment increase with an increased level of education. The proportion of people with Tertiary/ Higher Education is 88.3%. This represents the highest among all the levels. This

is followed by those with college (Nursing, Teacher Training, Vocational, Agriculture) having a proportion of 87.4% who are employed. The lowest proportion of 79.2% is made up of those who have attained senior secondary education. The results suggest that those with tertiary education have the greatest likelihood of employment in Ghana.

Table 4.15: Percentage distribution of Employment Status by Education

Educational Level	Employment Status		
	Employed (%)	Unemployed (%)	Total(N)
No Education	84.7	15.3	5983
Primary	86.3	13.7	3566
JSS/JHS	86.8	13.2	7245
SSS/SHS	79.2	20.8	3321
College(Vocational, Nursing, Agric)	87.4	12.6	949
Tertiary/Higher	88.3	11.7	1323
Total	85.1	14.9	22387

Chi-square= 127.565 df =5 p-value=0.001

Source: Computed from GLSS 2016/2017

4.4.8. LITERACY LEVEL AND EMPLOYMENT STATUS

Results from Table 4.16 below show that those who are literate have a slightly higher chance of being employed than those who are not. The proportion who can read and write and are employed is 85.4%, a little slightly higher than those who cannot which is 84.8%. The result shows that literacy level has an impact on an individual being employed or not.

Table 4.16: Percentage Distribution of Employment Status by Literacy

Literacy	Employment Status		Total(N)
	Employed (%)	Unemployed (%)	
Literate	85.4	14.6	11486
Illiterate	84.8	15.2	10901
Total(N)	85.1	14.9	22387

Chi-square= 1.636 df =1 p-value=0.201

Source: Computed from GLSS 2016/2017

4.5 BIVARIATE ANALYSIS OF VARIABLES OF EMPLOYMENT SECTOR AND INDEPENDENT VARIABLES

This sub-section examines the association between the second dependent variable (Employment Sector) and each of the independent variables by means of cross-tabulation. Consequently, if the chi-square test produces asymptotic significance value less than 0.05, there is a significant association between the independent variable and employment status. All the variables selected namely sex of the respondents, marital status, age, place of residence, religion, education, region and literacy level were found to be significant.

4.5.1 SEX AND EMPLOYMENT SECTOR

From Table 4.17, a higher proportion of males (44.0%) belong to the formal sector compared to their female counterparts which is 18.9%. A study done by Verick, (2014) has shown that females are more likely to work in the informal sector as compared to their male counterparts. From the table below, the results show that women in Ghana are significantly more likely to work in the informal sector as compared to their male counterparts.

Table 4.17: Percentage distribution of Employment Sector by Sex

Sex of Individual	Employment Sector		Total(N)
	Formal (%)	Informal(%)	
Male	44.0	56.0	9086
Female	18.9	81.1	9968
Total(N)	30.9	69.1	19054
Chi-Square =1399.798 df=1 p-value=0.001			

Source: Computed from GLSS 2016/2017

4.5.2 AGE AND EMPLOYMENT SECTOR

From Table 4.18, respondents aged 35- 44 years have the highest proportion in the formal sector constituting (35.8%) compared to the other age groups. Similarly, those under 25 years (18-24) years are the highest in the informal sector.

Table 4.18: Percentage distribution of the Employment Sector by Age

Age	Employment Sector		Total(N)
	Formal (%)	Informal(%)	
Under 25	12.7	87.3	3689
25-34	35.4	64.6	5113
35-44	35.8	64.2	5007
45-54	35.5	64.5	3626
55 -60	32.2	67.8	1619
Total	30.9	69.1	19054
Chi-square= 714.792 df =4 p-value=0.001			

Source: Computed from GLSS 2016/2017

4.5.3 MARITAL STATUS AND EMPLOYMENT SECTOR

From Table 4.19, the results reveal that those who were separated had the highest proportion (54.9%), followed closely by those who were divorced constituting a proportion of (53.4%), however those who are never married had the lowest employment rates in the formal sector of (27.1%) followed by those who are married recording 27.3% formal sector rate and those

who are never married had the lowest proportion of 27.1%.

Table 4.19 : Percentage distribution of the Employment Sector by Marital Status

Marital Status	Employment Sector		Total(N)
	Formal (%)	Informal (%)	
Married	27.3	72.7	10798
Consensual Union	37.3	62.7	1879
Separated	54.9	45.1	566
Divorced	53.4	46.6	684
Widowed	47.4	52.6	817
Never married	27.1	72.9	4310
Total(N)	30.9	69.1	19054

Chi-square= 547.785 df =5 p-value=0.001

Source: Computed from GLSS 2016/2017

4.5.4 PLACE OF RESIDENCE AND EMPLOYMENT SECTOR

Place of residence is categorized into rural and urban. Empirical studies done by Sackey & Osei (2006) found out that rural residents are more likely to be employed but in the informal sector than their urban counterparts who are more likely to be in the formal sector. The researchers attributed this finding to the availability of land in the rural areas than the urban centres, a possibility for rural folks working on farms and in the informal sector. From Table 4.20, 51.3% of urban residents were employed in the formal sector. This is higher than those who are in the rural areas constituting 17.4%. Majority of the rural dwellers were in the informal sector and this is evident in the results shown in Table 4.20

Table 4.20: Percentage distribution of Employment Sector by Place of Residence

Place of Residence	Employment Sector		Total (N)
	Formal (%)	Informal (%)	
Urban	51.3	48.7	7574
Rural	17.4	82.6	11480
Total (N)	30.9	69.1	19054

Chi-square= 2452.505 df =1 p-value=0.001

Source: Computed from GLSS 2016/2017

4.5.5 REGION AND EMPLOYMENT SECTOR

Regional differences in terms of environmental factors and socio-economic development, in particular, are expected to bring differences in employment sector rates. Regions such as Greater Accra and Ashanti, where there are better educational infrastructure and opportunities, as well as better employment opportunities, were expected to have high employment rates in the formal sector as compared to the likes of Upper East and Upper West which do not have much of such opportunities. The results confirm this expectation. From Table 4.21, the region with the highest proportion of people in the formal sector is Greater Accra Region (55.2%), followed closely by Ashanti Region (49.9%) and then Central Region with 35.5%. The possible reason for the high employment rates in the formal sector in these regions is that the inhabitants in these areas are predominantly urban, recording high levels of service sectors, industries and other economic activities serving as the main occupation of the people. Northern Region recorded the lowest proportion of employment rates in the formal sector (13.4%), followed very closely by Upper West (17.8%) and then Upper East with (22.2%).

Table 4.21: Percentage Distribution of Employment Sector by Region

Region	Employment Sector		Total(N)
	Formal (%)	Informal (%)	
Western	29.8	70.2	1868
Central	35.5	64.5	1838
Greater Accra	55.2	44.8	1791
Volta	29.5	70.5	2004
Eastern	32.6	67.4	1753
Ashanti	49.9	50.1	2007
Brong Ahafo	27.4	72.6	1817
Northern	13.4	86.6	2610
Upper East	22.2	77.8	1722
Upper West	17.8	82.2	1644
Total (N)	30.9	69.1	19054

Chi-square= 1435.190 df =9 p-value=0.001

Source: Computed from GLSS 2016/2017

4.5.6 RELIGION AND EMPLOYMENT SECTOR

Results from Table 4.22 show that Christians have the highest proportion in the formal sector (34.0%), followed by those with no religion (29.1%). The lowest proportion of 13.3% came out of those who are Traditionalist or those who practice other religion.

Table 4.22: Percentage distribution of Employment Status by Religion

Religion	Employment Sector		Total(N)
	Formal (%)	Informal(%)	
No Religion	29.1	70.9	916
Christian	34.0	66.0	13088
Islam	25.8	74.2	3982
Traditional/Other	13.3	86.7	1068
Total (N)	30.9	69.1	19054

Chi-square= 262.411 df =3 p-value=0.001

Source: Computed from GLSS 2016/2017

4.5.7 EDUCATION AND EMPLOYMENT SECTOR

The results reveal that employment in the formal sector increases with an increased level of education. The proportion of people with Tertiary/ Higher Education are 66.6%. This represents the highest among all the levels who are employed in the formal sector. This is followed by those with college (Nursing, Teacher Training, Vocational, and Agriculture) education having a proportion of 54.8% in the formal sector. The lowest proportion of 12.9% is made up of those with no education. The results suggest that those with tertiary education have the highest probability of being employed in the formal sector in Ghana.

Table 4.23: Percentage distribution of the Employment Sector by Education

Educational Level	Employment Sector		Total (N)
	Formal (%)	Informal (%)	
No Education	12.9	87.1	5065
Primary	25.3	74.7	3076
JSS /JHS	36.5	63.5	6287
SSS/SHS	35.3	64.7	2629
College(Nursing, Agric, Vocational, Technical)	54.8	45.2	829
Tertiary/ Higher	66.6	33.4	1168
Total	30.9	69.1	19054

Chi-square= 1851.050 df =5 p-value= 0.001

Source: Computed from GLSS 2016/2017

4.5.8 LITERACY LEVEL AND EMPLOYMENT SECTOR

Results from Table 4.24 below show that those who are able to read and write have a slightly higher chance of being employed in the formal sector than those who cannot read or write. Those proportion who are literate and employed in the formal sector constitute 35.9%, which is slightly higher than those who are illiterate constituting 26.1%. The result shows that literacy has a positive correlation with employment in the formal sector.

Table 4.24: Percentage Distribution of Employment Sector by Literacy

Literacy	Employment Sector		Total(N)
	Formal (%)	Informal (%)	
Literate	35.9	64.1	9244
Illiterate	26.1	73.9	9810
Total	30.9	69.1	19054

Chi-square= 209.437 df =1 p-value=0.001

Source: Computed from GLSS 2016/2017

4.6 SUMMARY

This chapter looked at the univariate and bivariate analysis. The univariate analysis was done to show the characteristics of the socio- demographic variables of the study population. The results were presented in tables, figures and frequencies. The bivariate analysis used cross-tabulations to examine the association between the socio- demographic variables and employment. The association between the socio-demographic variables and employment were tested using the chi-square test.

CHAPTER FIVE

MULTIVARIATE ANALYSIS OF THE DETERMINANTS OF EMPLOYMENT

5.1 INTRODUCTION

This chapter discusses the results of multivariate analyses to examine the relationship between employment and sex differences; controlling for other independent variables. It further determines the main factors that affect employment in Ghana. A binary logistic regression model is applied to this study because the two outcome variables are dichotomous thus the respondents are either employed or unemployed for the first dependent variable and for the second dependent variable they are either in the formal or informal sector. The multivariate analysis defines the extent of influence of the explanatory variables on employment status and employment sector.

Four binary logistic regression models were run to assess the determinants of employment. On the predicted variable. Model I examined the relationship between sex, control variables and employment status. Model II examined the relationship between sex, control variables and employment sector. In model III, employment status together with all the other predictor variables were entered into the model excluding sex. In Model IV, employment sector together with all the predictor variables were entered into the model excluding sex. This model is being run separately by sex to determine how the employment status and sector differ for males and females.

In interpreting the results, a reference category is chosen from the categorical variables to which other categories are compared using their odds ratios. A category with an odds ratio less than one indicates lower odds of being employed and being employed in the formal sector compared

to the reference category of that variable while odds ratios greater than one indicates higher odds of being employed for the first dependent variable or being in the formal sector for the second dependent variable. The analyses were conducted at a 95% significance level where the p-value should be less than 0.05.

5.1 Model 1: A Binary logistic Regression Model showing the relationship between Sex, Explanatory variables and Employment Status

Table 5.1 beneath specifies a detailed result of the odds ratios, 95% confidence interval and p-value of categories of variables shown in the table and the general effect of the explanatory variables on employment. The results show that the overall model is significant 1599.5 with 29 degrees of freedoms. The addition of the explanatory variable gives a better prediction than only considering sex. The Nagelkerke R² values show 12% of the variation in employment status is explained by all the variables.

Results from the binary logistic regression as shown in Table 5.1 suggest that six of the socio-economic and demographic variables were statistically significant. The significant variables are the age, education, marital status, place of residence, region, and religion.

In relation to sex, the regression analysis indicates that males are more likely to be employed than females. The odds ratio of 1.7 for males indicates that males have a higher likelihood of been employed than females. A plausible reason for this result is that a considerable proportion of women, especially those who are married, spend time in bearing and raising children, performing domestic duties among others which more often are time consuming making it impossible for them to be employed. It could also be due to some cultural attitude, societal norms and institutions such as a woman's place is the home which can negatively affect the rate at which most women will venture into employment. The hypothesis that men are likely to be employed more than women is retained. All the age groups are more likely to be employed

as compared to those under 25 years (reference category). Also, all coefficients of the age groups were significant with the p-value = 0.001.

With regard to the level of education, the logistic regression analysis revealed that the respondents with primary education having an odds ratio of 1.2, have a higher likelihood of been employed than those with no education. The respondents with junior high school education have an odd ratios of 1.2, indicating a higher likelihood of been employed that those with no education. Also, respondents with senior high school education have the least odds ratio of 1.1, also have a high likelihood of been employed than respondents with no education. A plausible reason for this is that, at that particular stage most individuals are in school to acquire a skill that will aid them in the labour market. Those with a college education have an odds ratio of 1.5 have the higher likelihood of been employed as compared to respondents with no education. Respondents with tertiary education have an odds ratio of 1.5 indicating a higher likelihood of been employed than those with no education. The result suggests a positive correlation between education and employment.

With regard to the place of residence, the odds ratio for rural residence is 1.5. This shows that rural residents have a higher likelihood of been employed than urban residents (reference category). This suggests that rural residency is positively associated with employment. The result is similar to the findings of (Uraz et al., 2010). One plausible reason for the result of this study is that rural residents are more likely to engage in farming and other agriculture- related activities, which does not require specialized skills, and there are readily available jobs in the rural areas, as compared to urban residents who might need some level of skills in order to engage in some of the jobs available in the urban areas. Another plausible reason is inadequate job opportunities in the urban areas, further compounded by the increasing urban population as a result of rapid urbanization fueled by rural-urban migration of the youth and most likely of

all is the fact that the rural folks are poorer than their urban counterparts, and so cannot afford the luxury of not working (Songsore, 2003; IOM, 2015).

There is a significant association between region and employment. Comparing the coefficients of the odds ratio of region of residence to the reference category (Western Region), the results of the regression analysis show that residents in Greater Accra, Ashanti, Volta, Upper East and Upper West regions were found to be less likely to be employed as compared to those in Western Region (reference category). Those in Central, Eastern, Brong- Ahafo and Northern Region are more likely to be employed as compared to those in the Western Region (reference category).

With regard to religion, the logistic regression reveals that Christians likelihood of been employed is significantly different from the reference category. Also, those who practice the Islam faith are approximately 2.3 more likely than those who have no religion (reference category) to be employed. However, Traditionalists have lesser odds of 0.6 as compared to no religion (reference category). This result found is similar to the findings of (Pastore & Tenaglia, 2013) who also found out that those who practice the Islam faith are a higher likelihood of being employed.

The results of the logistic regression suggest that marriage has a positive correlation with employment. Currently, married people, having an odds ratio of 1.6 have a higher likelihood of been employed than those who have never married (reference category). Also, those who are divorced have an odds ratio of 1.6 are more likely to be employed than those who have never married (reference category). Those who are separated have the likelihood of being employed is significantly different from the reference category because their odds ratio were higher than the p-value of 0.05. This confirms the results at the bivariate level, which suggest that both married men and women have higher probabilities of being employed than those who were never

married and those who were divorced or separated. It also supports the findings of (Faridi et al., 2009a) but contradicts the findings of (Patacchini et al., 2013).

Table 5. 1: A Binary logistic Regression Model showing the relationship between Sex, Explanatory variables and Employment Status

EMPLOYMENT STATUS (EMPLOYED)				
Variables	OR	95% Confidence Interval		Sig (P-value)
Sex				
Male	1.677	1.542	1.825	0.001
Female(RC)	1.000			
Age				
Under 25 (RC)	1.000			0.000
25-34	1.806	1.618	2.016	0.001
35-44	2.894	2.527	3.314	0.001
45-54	2.727	2.342	3.175	0.001
55-60	2.710	2.230	3.294	0.001
Education				
No education (RC)	1.000			0.000
Primary	1.227	1.077	1.398	0.002
Middle/JHS	1.185	1.049	1.339	0.006
SSS/SHS	1.081	0.933	1.252	0.302
College (Nursing, Training, Vocational, Technical)	1.530	1.219	1.922	0.000
Tertiary/Higher	1.494	1.209	1.846	0.000
Literacy Level				
Literate (RC)	1.000			0.000
Illiterate	0.944	0.866	1.029	0.192
Place of Residence				
Urban(RC)	1.000			0.000
Rural	1.489	1.357	1.633	0.001
Region				
Western (RC)	1.000			0.000
Central	1.268	1.047	1.535	0.015
Greater Accra	0.959	0.798	1.153	0.656

Volta	1.683	1.375	2.059	0.001
Eastern	1.051	0.870	1.270	0.604
Ashanti	0.962	0.805	1.150	0.671
Brong Ahafo	1.472	1.203	1.801	0.001
Northern Region	1.055	0.875	1.272	0.573
Upper East	0.379	0.320	0.449	0.001
Upper West	0.415	0.349	0.494	0.001
Religion				0.000
No Religion(RC)	1.000			
Christians	1.075	0.883	1.310	0.471
Islam	1.236	1.001	1.526	0.049
Traditional/Other	0.634	0.499	0.805	0.000
Marital Status				0.000
Married	1.529	1.360	1.718	0.000
Consensual Union	1.266	1.087	1.475	0.002
Separated	1.202	0.928	1.556	0.164
Divorced	1.622	1.233	2.134	0.001
Widowed	1.206	0.962	1.511	0.104
Never Married(RC)	1.000			

Constant	1.481	
Correct % Prediction	85.1	
Nagelkerke R²	12.1%	
Model Chi-square (df)	1599.523(29)	
RC- Reference category	*p<0.05	OR-Odds ratio

Source: Computed from GLSS 2016/2017

5.2 Model 11: A Binary logistic Regression Model showing the relationship between Sex, Explanatory Variables and Employment Sector

Table 5.2 beneath specifies a detailed result of odds ratios, 95% confidence interval and p- value of categories of variables shown in the table and the general effect of the explanatory variables on the employment sector. The results show that the overall model is significant 6872.9 with 29 degrees of freedoms. The Nagelkerke R² values show 42.7% of the variation in employment is explained by all the variables.

In relation to sex, the regression analysis indicates that males are 6.1 times likely to be employed in the formal sector than females (reference category). The coefficient of the odds ratio indicates that males are 6.1 times more likely to be employed in the formal sector. A plausible reason is that a considerable proportion of men have higher levels of education which allows them to fit much more into the formal sector as compared to women who are more often deprived of education to the highest level because of some social restrictions, social institutions and gender role task like childbearing/child rearing, home taking among others (Aker, 1992; Ham & Buchel, 2004). The hypothesis that men are more likely to be employed in the formal sector than women is retained.

Respondents aged 25-34, 35-44, 45-54, 55-60 years are 3.8, 4.5, 4.0 and 3.1 times more likely to be in the formal sector than those under 25 (reference category). All the coefficients of the age groups were significant with the p-value= 0.001. The study has shown that there is a positive correlation between age and the formal sector because formal sector usually require specific skills which more often moves alongside with age. As the age of individuals increases the higher the probability of being in the formal sector.

Respondents with primary, JHS/middle, Secondary, College and Tertiary are 1.7, 2.4, 2.4, 5.4 and 6.3 times as likely to be in the formal sector compared to respondents with no education (reference category). The results have shown that there is a positive correlation between education and the formal sector because the higher the educational level of an individual the higher the probability of being in the formal sector of work because these individuals would have acquired the needed requisite skills that is required in the formal sector of work.

There is a positive significant association between literacy and the formal sector. Those who are illiterate are 0.2 less likely to be in the formal sector compared to respondents who are literate. This shows that being literate is a requisite to be in the formal sector of work.

Furthermore, there is a positive significant association between place of residence and the formal sector. Respondents in rural areas are 0.3 times less likely to be in the formal sector as compared to those who are in urban areas (reference category). A reason for the low record of people in the formal sector in the rural areas is the lack of enough sectoral avenues and industries in the rural areas unlike the urban areas where there is a high record of formal sector jobs (Chen, 2012).

There is a positive significant association between the region of residence and employment sector. Comparing the coefficient of the odds ratio of region of residence to the reference category (Western Region), in Greater Accra and Ashanti regions, it was found out that there were more people who were more likely to be employed in the formal sector whilst those in Northern Region were less likely to be employed in the formal sector as compared to Western Region (reference category).

There is a significant association between Religion and formal sector. Religion which includes Christian and Islam have the likelihood of been in the formal sector. Respondents, who are Christians and Islam are 1.3 and 1.5 respectively more likely to be in the formal sector as compared to those with no religion (reference category). Traditionalists (not significant) are 0.9 less likely to be employed in the formal sector as compared with those with no religion (reference category).

The results from the logistic regression suggest that there is a significant association between marriage and formal sector. Those separated, divorced, widowed are 2.0, 5.3, 5.5 and 9.0

times as likely to be found in the formal sector as never married respondents (reference category). Those who were married have the likelihood of being employed in the formal sector is significantly different from the reference category. This is so because their p-value were higher than 0.05. The results show that there is a positive correlation between marriage and the formal sector.

Table 5. 2: A Binary logistic Regression Model showing the relationship between Sex, Explanatory Variable and Employment Sector

EMPLOYMENT SECTOR(FORMAL)				
Variables	OR	95CI		Sig (P-value)
Sex				
Male	6.062	5.550	6.622	0.001
Female(RC)	1.000			
Age				
Under 25 (RC)	1.000			0.000
25-34	3.787	3.289	4.360	0.001
35-44	4.439	3.800	5.187	0.001
45-54	3.959	3.346	4.685	0.001
55-60	3.069	2.523	3.734	0.001
Education				
No education(RC)	1.000			0.000
Primary	1.728	1.507	1.982	0.001
Middle/JHS	2.360	2.080	2.677	0.001
SSS/SHS	2.695	2.301	3.157	0.001
College(Nursing, Teacher, Agric, Vocational, Technical)	5.397	4.411	6.603	0.001
Tertiary/Higher	6.311	5.231	7.613	0.001
Literacy Level				
Literate (RC)	1.000			0.000
Illiterate	0.197	0.098	0.306	0.001
Place of Residence				
Urban(RC)	1.000			0.000
Rural	0.228	0.209	0.248	0.001

Region				0.000
Western (RC)	1.000			
Central	1.237	1.051	1.456	0.011
Greater Accra	1.466	1.242	1.730	0.001
Volta	1.189	1.008	1.403	0.040
Eastern	1.063	0.899	1.256	0.474
Ashanti	1.986	1.696	2.325	0.000
Brong Ahafo	0.874	0.738	1.036	0.121
Northern Region	0.598	0.493	0.724	0.001
Upper East	1.165	0.966	1.404	0.110
Upper West	0.810	0.666	0.984	0.034
Religion				0.000
No Religion(RC)	1.000			
Christians	1.297	1.080	1.557	0.005
Islam	1.478	1.208	1.809	0.001
Traditional/Other	0.858	0.654	1.127	0.271
Marital Status				0.000
Married	1.043	0.922	1.181	0.499
Consensual Union	1.911	1.643	2.224	0.001
Separated	5.348	4.248	6.733	0.001
Divorced	5.529	4.452	6.868	0.001
Widowed	9.038	7.267	11.240	0.001
Never Married(RC)	1.000			

Constant	0.025
Correct % Prediction	80.3
Nagelkerke R²	42.7%
Model Chi-square (df)	6872.927(29)
RC- Reference category	*p<0.05 OR-Odds ratio

Source: Computed from GLSS 2016/2017

5.4 Model 111: A Binary logistic Regression Model showing the relationship between Explanatory Variables and Employment, by Sex

Table 5.3 beneath specifies a detailed result of the odds ratios, 95% confidence interval and p-value of categories of variables shown in the table and the general effect of the explanatory variables on employment. The results show that the overall model is significant 904.7 with 28 degrees of freedoms for males and 736.9 with 28 degrees of freedom for females. The Nagelkerke R² values show 16% and 9.9% for men and women respectively which account for the variation in employment status being explained by all the variables.

Results from the binary logistic regression in Table 5.3 show that all the socio-economic and demographic variables were statistically significant. The significant variables are the age, education, marital status, place of residence, region, literacy level and religion.

In relation to sex, the regression analysis in Table 5.3 indicates that males are more likely to be employed than females. In Table 5.3, the result showed that among the two different sexes, women were more likely to be employed as their ages increased as compared to males. Males with reference category (under 25) had an odds ratio of 1.7, 2.0, 1.7 and 1.8 for the ages 25-34, 35-44, 45-54, and 55-60 respectively. However for the females with reference category (under 25) had an odds ratio of 1.8, 3.0, 3.3, and 3.1 for the ages 25-34, 35-44, 45- 54, and 55-60 respectively. The odds ratio among male ages rises, reaches a peak at age 35- 44 and begins to fall after 45-54 years but for females, the coefficient of their odds ratios keeps on increasing till age 55-60 which confirms results of (Hafeez & Ahmad, 2002; Patacchini, Ciopollone, Vallanti, 2013) affirming the fact that as the age of women increases, there is a higher likelihood of being employed. From the results it was realized that the odds ratio for women is slightly higher than that of females. The results show that there is a slightly strong positive correlation between age and employment for women as compared to men.

Male respondents have a higher odds ratio of 1.5, 1.5, 1.2, 1.9, 1.6 and females have slightly lower odds ratio of 1.2, 1.1, 1.0, 1.4, and 1.5. From the odds ratio, it is seen that there is a significant association between education and employment hence a determinant for employment. The results show that males who are educated are more likely to be employed. In reference to education men are more likely to be educated as compared to their female counterparts. This is so because the coefficient of odds ratio on education for men is slightly higher than women at all the levels of education. The coefficient on education for men was statistically significant in the study. Also, the coefficient on education for women was statistically significant in the study even though the coefficient of odds ratio for women was slightly lower than that of men.

Male respondents who are illiterate (cannot read or write) had odds ratio of 1.0 as compared to those with a form of literacy skill. Female respondents with no form of literacy skill (cannot read or write) had odds ratio of approximately 1.0. The results showed that the coefficient of odds ratio on literacy skill for both men and women with the likelihood of being employed was significantly different from the reference category.

With regard to the place of residence, the coefficient of the odds ratio for men in rural areas is 1.6 while women have a slightly lower odds of 1.5. From the results it is seen that men in rural areas are more likely to be employed than women resident in rural areas. A plausible reason for this result is that women in rural even though are more likely to be employed are compounded with extra activities and other social restrictions like child care responsibilities, family responsibilities that serve as a form of hindrance to them preventing them from being at par with men in the rural areas when it comes to employment. The result however suggests that rural residency is positively associated with employment. The result is similar to the findings of (Uraz et al., 2010).

Region is positively correlated with employment. Comparing the region of residence to the reference category (Western Region), the results of the regression analysis show that men and

women in Greater Accra, Upper East and Upper West regions had lesser coefficient of odds ratio of being employed whilst men and women in Ashanti, Volta, Central, Eastern, Brong-Ahafo and Northern Region had higher coefficient of odds ratio of being employed. From the study it was identified that the coefficient of odds ratio for men in Greater Accra, Brong-Ahafo, Upper East and Upper West were statistically not significant to the study while on the other hand the coefficient of odds ratio for women in Ashanti, Upper East and Upper West with the likelihood of been employed was statistically different from the reference category.

With regard to religion, the logistic regression reveals that among men, Christians (not significant) and Traditionalist (significant) had lower odds of 0.9 and 0.5 respectively of being employed but for Islam (not significant), they had 1.1 odds of been employed. On the part of women Christians (not significant) and Islam (significant) had an odds of 1.5 and 1.3 respectively of being employed but Traditionalist (not significant) have lower odds of 0.8 likelihood of being employed. This finding is contrary to the findings of (Pastore & Tenaglia, 2013) who stated that in the doctrines of all religious denominations, women are considered to be particularly good in performing care activities hence they are expected to give priority to work within the family, rather than outside the family but looking at the coefficients of the odds ratio of males and females this study showed that there is a stronger correlation between religion and employment for women as compared to men.

The results of the logistic regression suggest that among men, those married, in consensual union, separated, divorced or widowed had higher odds of been employed than those who are never married. Among women, those married and divorced had higher odds of being employed, however, those in consensual union, separated or widowed had lesser odds of being employed. For men, those married, in consensual union and separated had coefficient of odds ratio with the higher likelihood of been employed while for women those who were divorced had coefficient of odds ratio that were statistically significant to the study. A plausible reason for this is that for married men, as breadwinners they are faced with extra responsibilities of taken

care of their families among others hence cannot afford not to be employed. For women, a plausible reason might be that those who are divorced are not in unions hence they have a responsibility of taken care of themselves solely hence they have to be involved in one economic activity or another for a living. The study shows that there is a strong positive correlation between employment and marital status for men as compared to women.

Table 5. 3: A Binary logistic Regression Model showing the relationship between Male, Female, Explanatory variables and Employment Sector

Variables	MALES			FEMALES				
	OR	95CI	(P-value)	OR	95CI	(P-value)		
Age			0.000			0.000		
<25 (RC)	1.000			1.000				
25-34	1.728	1.440	2.073	0.001	1.777	1.547	2.040	0.001
35-44	2.233	1.755	2.841	0.001	3.037	2.574	3.584	0.001
45-54	1.660	1.280	2.154	0.001	3.302	2.727	3.998	0.001
55-60	1.844	1.325	2.566	0.001	3.076	2.406	3.934	0.001
Education			0.000			0.000		
No education(RC)	1.000			1.000				
Primary	1.427	1.139	1.788	0.002	1.169	0.995	1.373	0.057
Middle/JHS	1.462	1.187	1.799	0.001	1.070	0.919	1.245	0.384
SSS/SHS	1.223	0.972	1.539	0.086	0.980	0.805	1.192	0.837
College(Agric, Nursing, Teacher Training)	1.890	1.312	2.722	0.001	1.373	1.023	1.842	0.035
Tertiary/Higher	1.637	1.209	2.217	0.001	1.504	1.103	2.051	0.010
Literacy Level			0.000			0.000		
Literate (RC)	1.000			1.000				
Illiterate	0.987	0.858	1.135	0.852	0.893	0.800	0.997	0.044
Place of Residence			0.000			0.000		
Urban(RC)	1.000			1.000				
Rural	1.571	1.347	1.833	0.001	1.449	1.290	1.628	0.001
Region			0.000			0.000		

Western (RC)	1.000				1.000			
Central	1.314	0.952	1.813	0.097	1.249	0.983	1.586	0.069
Greater Accra	0.923	0.686	1.242	0.596	1.002	0.791	1.269	0.986
Volta	2.007	1.418	2.839	0.001	1.552	1.209	1.992	0.001
Eastern	1.098	0.804	1.499	0.558	1.034	0.814	1.313	0.785
Ashanti	1.284	0.943	1.746	0.112	0.839	0.672	1.048	0.121
Brong Ahafo	1.950	1.375	2.767	0.001	1.283	0.999	1.647	0.051
Northern Region	1.040	0.770	1.406	0.797	1.083	0.852	1.376	0.515
Upper East	0.293	0.224	0.385	0.001	0.456	0.366	0.567	0.001
Upper West	0.429	0.325	0.566	0.001	0.413	0.329	0.518	0.001
Religion				0.000				0.000
No Religion(RC)	1.000				1.000			
Christians	0.895	0.673	1.189	0.444	1.468	1.105	1.951	0.008
Islam	1.028	0.757	1.397	0.860	1.691	1.254	2.279	0.001
Traditional/Other	0.463	0.329	0.652	0.001	1.074	0.760	1.517	0.685
Religion				0.000				0.000
No Religion(RC)	1.000				1.000			
Christians	0.895	0.673	1.189	0.444	1.468	1.105	1.951	0.008
Islam	1.028	0.757	1.397	0.860	1.691	1.254	2.279	0.001
Traditional/Other	0.463	0.329	0.652	0.001	1.074	0.760	1.517	0.685
Marital Status				0.000				0.000
Married	2.390	1.962	2.911	0.001	1.181	1.014	1.376	0.032
Consensual Union	2.712	1.993	3.692	0.001	0.890	0.737	1.075	0.228
Separated	2.680	1.434	5.008	0.002	0.903	0.674	1.210	0.495
Divorced	1.464	0.909	2.359	0.117	1.561	1.113	2.188	0.010
Widowed	1.541	0.754	3.150	0.235	0.868	0.675	1.116	0.269
Never Married(RC)	1.000				1.000			
Never Married(RC)	1.000				1.000			

Constant	2.245	Constant	1.395
Correct % Prediction	87.8	Correct % Prediction	82.6
Nagelkerke R²	16%	Nagelkerke R²	9.9%
Model Chi-square (df)	904.702(28)	Model Chi-Square (df)	736.884(28)
RC- Reference category	*p<0.05	RC-Reference category	*p<0.05
OR-Odds Ratio		OR- Odds Ratio	

Source: Computed from GLSS 2016/2017

Source: Computed from GLSS 2016/2017

5.5 Model 1V. A Binary logistic Regression Model showing the relationship between Males, Females, Explanatory Variables and Employment Sector.

Table 5.4 beneath specifies a detailed result of the odds ratios, 95% confidence interval and p-value of categories of variables shown in the table and the general effect of the explanatory variables on employment. The results show that the overall model is significant 3842.2 with 28 degrees of freedoms for males and 2751.4 with 28 degrees of freedom for females. The addition of the explanatory variable gives a better prediction of the factors that affect men and women in reference to employment in the formal sector. The Nagelkerke R² values show 46.2% and 38.8% for men and women respectively account for the variation in the formal sector is explained by all the variables.

Results from the binary logistic regression as shown in Table 5.4 suggest that all the socio-economic and demographic variables were statistically significant. The significant variables are the age, education, marital status, sex, place of residence, region, literacy level and religion.

In relation to sex, the regression analysis in Table 5.1 indicates that males are more likely to be employed than females. In Table 5.4 the result showed that among the two different sexes, women were more likely to be employed in the formal sector as their age increases as compared to males but from Table 5.3, the results showed that among the two sexes men were more likely to be employed as compared to females. Males were 2.9, 2.7, 1.9 and 1.3 for the ages 25-34, 35-44, 45-54, and 55-60 respectively more likely to be employed in the formal sector than those under 25(reference category). However females were 4.6, 6.7, 7.4 and 6.0 for the ages 25-34, 35-44, 45-54, and 55-60 respectively more likely to be employed in the formal sector. The odds ratio among male ages rises reaches a peak at age 35-44 and begins to fall but for females, the coefficient of the odds ratio keeps increasing till the age 55-60.

A plausible reason for this result is that a considerable proportion of women being employed in the formal sector is that as the age of women increase their experiences and skills increases. From the results, it can be concluded that age is a significant factor associated with the formal sector and that as the ages of women increase they are more likely to be employed in the formal sector than their male counterparts.

With regard to the level of education, the logistic regression analysis from Table 5.4, has revealed that males have higher levels of education than females. Male respondents have a higher odds ratio of 1.8, 3.4, 3.598, 8.0 and 12.0 for primary, JHS/Middle, SSS, College and Tertiary education respectively in the formal sector. Females have slightly lower odds of 1.7, 1.9 1.7, 4.2 and 3.0 for Primary, JHS/Middle, SSS/SHS, College and Tertiary in the formal sector. The study shows that education is statistically significantly associated with the formal sector. The coefficient of odds ratio of males is higher than females which shows that education is a strong determinant for formal sector employment; however males have higher levels of education hence they venture into the formal sector more than females. This shows that education has a strong association with formal sector employment for men more than women.

There is a significant association between literacy levels for males and females. Male respondents who are illiterate (cannot read or write) had odds of 0.9. Female respondents who are illiterate (cannot read or write) had odds of 0.8. This shows that literacy level is a determining socio-economic factor that prevents more women from venturing into the formal sector of work as compared to men.

There is a positive significant association between the region of residence and formal sector. Comparing the region of residence to the reference category (Western Region), for both males and females, those in Greater Accra and Ashanti had higher odds of being employed in the formal sector whilst those in Northern and Upper West Region have lower odds of being employed in the formal sector. In Volta, Eastern, Central, Upper East and Brong-Ahafo Region the coefficient of odds ratio was significantly different from the reference category. For women, those in Central, Greater Accra, Eastern, Brong-Ahafo, Northern Region, Upper East and Upper West coefficient of odds ratio was significantly different from the reference category. This shows that there is a strong association between region and employment for men as compared to women.

With regard to religion, the logistic regression reveals that among men Christians (not significant) and Islam (significant) have 1.2 and 1.6 odds of being employed in the formal sector. Men who are traditionalist (not significant) have lesser odds of being employed in the formal sector. On the part of women, Christians (not significant) and Islam (not significant) have higher odds of 1.3 and 1.3 respectively of being employed in the formal sector but for Traditionalist (not significant) had 0.9 odds of being employed in the formal sector.

Table 5.4: A Binary logistic Regression Model showing the relationship between Males, Females, Explanatory variables and Employment Sector

MALES				FEMALES				
Variables	OR	95CI	(P-value)	OR	95CI	(P-value)		
Age				0.000				
Under 25 (RC)	1.000			1.000				
25-34	2.936	2.447	3.523	0.001	4.547	3.597	5.748	0.001
35-44	2.681	2.182	3.294	0.001	6.709	5.187	8.678	0.001
45-54	1.858	1.483	2.327	0.001	7.363	5.589	9.701	0.001
55-60	1.261	.967	1.643	0.086	5.997	4.368	8.233	0.001
Education				0.000				
No								0.000

education(RC)	1.000				1.000			
Primary	1.757	1.441	2.144	0.001	1.681	1.377	2.052	0.001
Middle/JHS	3.146	2.629	3.765	0.001	1.896	1.567	2.295	0.001
SSS/SHS	3.598	2.903	4.458	0.001	1.720	1.315	2.249	0.001
College (Nursing, Vocational, Teachers, Agric)	8.029	6.002	10.740	0.001	4.712	3.454	6.429	0.001
Tertiary/Higher	12.027	9.180	15.757	0.001	2.975	2.161	4.096	0.001
Literacy Level				0.000				0.000
Literate (RC)	1.000				1.000			
Illiterate	0.857	0.760	0.966	0.001	0.788	0.685	0.907	0.001
Place of Residence				0.000				0.000
Urban(RC)	1.000				1.000			
Rural	0.166	0.147	0.187	0.001	0.788	0.685	0.907	0.001
Region				0.000				0.000
Western (RC)	1.000				1.000			
Central	1.204	0.963	1.504	0.103	1.319	1.015	1.713	0.038
Greater Accra	2.190	1.706	2.812	0.001	1.240	.954	1.612	0.107
Volta	0.873	0.699	1.091	0.233	1.762	1.352	2.297	0.000
Eastern	0.934	0.748	1.167	0.548	1.316	1.005	1.723	0.046
Ashanti	2.015	1.620	2.507	0.000	2.289	1.780	2.944	0.000
Brong Ahafo	0.773	0.618	0.968	0.025	1.115	0.841	1.479	0.450
Northern Region	0.502	0.392	0.642	0.001	0.649	0.457	0.921	0.016
Upper East	1.190	0.928	1.525	0.172	1.059	0.771	1.454	0.723
Upper West	0.751	0.584	0.967	0.026	0.868	0.614	1.227	0.422
Religion				0.000				0.000
No Religion(RC)	1.000				1.000			
Christians	1.197	0.972	1.474	0.091	1.275	0.811	2.003	0.292
Islam	1.564	1.234	1.982	0.001	1.284	0.795	2.074	0.307
Traditional/Other	0.937	0.681	1.290	0.691	0.878	0.484	1.592	0.668
Marital Status				0.000				0.000
Married	3.992	3.364	4.739	0.001	0.154	0.126	0.189	0.001
Consensual Union	4.772	3.888	5.857	0.001	0.495	0.391	0.628	0.001
Separated	3.372	2.279	4.992	0.001	2.236	1.683	2.969	0.001
Divorced	4.189	2.887	6.079	0.001	1.943	1.480	2.550	0.001
Widowed	2.307	1.269	4.192	0.006	2.113	1.620	2.755	0.001

Never Married(RC)	1.000	1.000
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Constant 0.122	Constant 0.79
Correct % Prediction 78.2	Correct % Prediction 85.4
Nagelkerke R² 46.2	Nagelkerke R² 38.8
Model Chi-square (df) 3842.233(28)	Model Chi-square (df) 2751.350(28)
RC- Reference category *p<0.05	RC- Reference category *p<0.05
OR-Odds ratio	OR-Odds ratio

Source: Computed from GLSS 2016/2017

5.6 DISCUSSION OF FINDINGS

This section deliberates on the key verdicts of the study. It is based on the specific objectives of the study and hypotheses that were derived from findings stated in studies on employment in Ghana. Further comparisons were made to confirm hypotheses and objectives.

The study analyzed the socio-demographic characteristics of the sampled population that influence employment and formal sector. Results from the binary logistic regression as shown in Table 5.1, 5.2, 5.3 and 5.4 suggest that all the eight out of the socio-economic and demographic variables were statistically significant to the study. The significant variables are the age, education, marital status, sex, place of residence, region of residence, literacy and religion.

In relation to sex, the binary logistic regression analysis run for model 1 and 11 indicates that males are more likely to be employed and in the formal sector than females (Rahmah & Idris 2012; Magidu, 2010). The coefficient of odds ratio for males in model 1 and model 11 were slightly higher than that of females. This confirms the hypothesis that men are more likely to be employed than women, hence the hypothesis is retained. A plausible reason for this result is that

a considerable proportion of women, especially those who are married, spend time in bearing children and also in performing domestic duties, which makes it impossible for them to be employed. It could also be due to some cultural and societal norms such as a woman's place is the home and the low level of education of mostly women which negatively affect the rate at which women get employed. The hypothesis that men are likely to be employed than women cannot be rejected.

The results specify that place of residence is a determining factor in employment and formal sector. From the four models estimated, the results showed that rural dwellers were more likely to be employed than those in urban areas (Tasnim & Khan, 2015). This is due to the availability of land and other farming activities most rural dwellers are involved in which serve as a form of living for them. However, the type of work they are involved in is more often in the informal sector. The results from the model run for model 11 and 1V have shown that urban dwellers are more likely to be in the formal sector than rural dwellers. From the findings the hypothesis that urban dwellers are more likely to be employed than rural dweller is rejected.

On the other hand, education is another socio-demographic factor that influences employment and employment sector outcome in the study. In all the models estimated, education was statistically significantly associated with employment and formal sector and it indicates that the higher the level of an individual's education the more likely of being employed in the formal sector. From all the four models run, it was realized that those with higher levels of education were more likely to be employed. From Model III and Model IV, the results showed that on the part of sex, men with higher levels of education were more likely to be employed than women with higher level of education because the coefficient of odds ratio for men with Tertiary and College education were slightly higher than that of women with the same level of education in both models. The results show that the record of high level of employment for men in

employment and the formal sector is as a result of education. Education being a strong socio-economic determinant shows that there is a high record of men who are employed due to their higher level of education as compared to women.

Age is an important contributing factor for employment. From the logistic regression run, the 4 models have shown that as an individual's age increases, their employment rate also increases. From model 1 and model 11 the results indicated that age increases, reaches a peak and falls. There is significance difference in the ages of females as seen in models III and models IV. The result from the logistic regression shows that for women, as their age increase their employment rates also increases but for men it rises, reaches a peak and falls. The result for men's employment rates indicate that there is no significant difference between men's employment rate because their ages increase, reaches a peak and falls.

For Literacy skills, the models run indicate that literacy was a determining factor of an individual being employed especially in the formal sector. To be able to work in the formal sector, an individual must at least be able to read and write. From model 1 and 11, the results showed that individuals who were illiterate (cannot read or write) were less likely to be employed and in the formal sector. In model 111 and 1V the results indicated that for men and women there were no much significant difference in their literary rates. Men and women with no of literacy skills were less likely to be employed.

Marriage has being identified as a strong socio-economic determining factor for employment. From model 1 and models 11, the results indicated that those who were married, were more likely to be employed. However, in model 11 it was identified that the coefficient of odds ratio of those who are married were not significantly different in the formal sector unlike model 1. All the other categories for marital status had coefficient of odds ratio were statistically significant as seen in model 11. For model 111, it was identified that men who are married, in

consensual unions and separated were more likely to be employed. For women it was those who are divorced who were more likely to be employed. In model 1V, it was identified that marital status played a significant factor in employment in the formal sector. It was identified that all the categories of marital status were statistically significant in the study, even though men who were married had higher odds of being employed as compared to women who were married. From the results it shows that being married for men was a strong determinant of being employed and in the formal sector. It can be stated that marriage is one socio-economic factor that hinders women from being employed.

There is no much difference between religion and employment. Model 1, 11, 111, and 1V have shown that being affiliated to a particular religion could play a particular role in employment and employment sector. In model 1, those who were traditionalist were more likely to be employed, however for the formal sector, those who were Islam were more likely to be employed. In model 111, in finding the religion which serves as hindrance for men and women, it was identified that men who were Traditionalist had odds ratio which were significant when compared to the reference category while women who are Islam were more likely to be employed. In model 1V, it was identified that men who practice the Islam religion were more likely to be in the formal sector. For women, the coefficient of the odds ratio of none of the region was significant to the study. This shows that religion even though plays a role in employment and the formal sector, the effects it has on employment and the formal sector is not that significant.

Region of Residence on the other hand is a strong determining factor in employment and the formal sector. In model 1, the results indicated that those in Volta Region, Brong-Ahafo Region, Upper East and Upper West Region were more likely to be employed. This result indicates that living in an urban area such as Greater Accra and Ashanti Region was not a yardstick of being employed. In model 11, it was identified from the results that being in Greater Accra, Ashanti, Northern Region increased the likelihood of an individual being in the formal sector of

employment. This is so because of the high industrial and sectoral avenues recorded in these regions. Also, in model 111, to help identify which regions men and women were more likely to be employed, it was identified that men in Volta, Brong- Ahafo, Upper East and Upper West were more likely to be employed, this result does not differ much from the results obtained in model 1. However, for women, those in Volta, Upper East and Upper West region were more likely to be employed. This result does not differ much from that of men in model 111 and that of model 1. From model 1V, it was identified that men in Greater Accra, Ashanti, Northern Region and Upper West Regions were more likely to be in the formal sector. On the part of women, it was identified that women in Volta and Ashanti Region were more likely to be employed in the formal sector. From the result, it could be seen that there is a significant difference in the formal sector of employment for men and women when it comes to region.

5.7SUMMARY

This chapter looked at the multivariate analysis. At the multivariate analysis level, binary logistic regression was used because the dependent variables were dichotomous which were measured as (employed or not employed and further broken down to the forms of employment they were involved in thus the formal and informal sector). Four binary logistic regression models were generated to provide a better understanding on the determining factors accounting for sex differences in employment.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6 INTRODUCTION

This chapter provides a summary on the findings of the study. The findings from the analysis of the univariate, bivariate and multivariate analysis were linked to extant literature which was reviewed to give a better understanding of the results and in order to help draw conclusions. Additionally, the study makes policy recommendations based on the study findings.

6.1 SUMMARY OF MAIN FINDINGS

The main objective of the study was to examine sex differences in employment in Ghana. The study further sought to examine the association between socio-demographic characteristics of respondents and employment. It further sought to assess the relationship between sex and employment status and sector by controlling for all the socio-demographic variables used in the study. The study employed data from the Ghana Living Standards Survey, 2016/2017. Data on those aged eighteen to sixty (18-60) years were used for this study. The dataset was analyzed at univariate, bivariate and multivariate levels after which deductions were made.

At the univariate level, an analysis was done to show the characteristics of the socio-demographic variables of the study population. From the study, about 80% of the respondents were employed with 69% of the respondents working in the formal sector. Expectedly, women were the highest in the study population constituting 54% for the employment status and 52% for the employment sector.

The bivariate analysis used cross-tabulations to examine the association between the socio-demographic variables and employment. The association between the socio-demographic

variables and employment were tested using the chi-square test. From the results, at the bivariate level of analysis the results indicated there were more males (87.8%) employed than females (82.8%). At the employment sector, it was identified that a higher proportion of males were in the formal sector (44.0%) than females recording 18.9%. Individuals aged 35-44 years had the highest number of respondents for both the employment and the employment sector. Those in the Volta region had the highest number of respondents in employment constituting 91.4% while the employment sector had Greater Accra region recording the highest number of respondents in the formal sector (55.2%).

The binary logistic model was used to examine the associated factors of sex differences in employment in Ghana. The analysis revealed that place of residence, age, education, region, religion, marital status and literacy level were significant predictors of sex difference in employment in Ghana at a 95% confidence interval. In relation to age, the results from the bivariate analysis shows that for both employment status and employment sector a higher proportion of respondents aged between 35-44 years were employed in the formal sector. The result from the study has shown that as an individual's age increases, age reaches a peak between ages 35-44 years, and then begins to fall for both the employment status and employment sector.

Binary logistic regression model was used to examine the associated factors of employment status and employment sector. Education, Age, Place of residence were significant predictors of employment status and employment sector for models 1 and 11. Therefore the results imply that education, age and place of residents were determinants of employment status and employment sector. In model 111, the results show that age and place of residence were strong determinants for men and women in reference to employment. The results show that age and place of residence were significant predictors of employment for men and women. In model

IV, the results show that education, place of residence and marital status were significant predictors for formal sector employment.

Place of residence as a control variable in the conceptual framework was statistically significant and showed the moderating ability as the objective of the study set out to find. The binary logistic regression result has shown that place of residence is a strong determining factor for formal employment. From the study it was identified that those in urban areas were more likely to be in formal sector of employment a reason why individuals in Ashanti and Greater Accra Region had recorded a high number of individuals in the formal sector of employment due to its urban nature.

Also the multivariate analysis shows that for men, age was a significant factor for employment. Age was found to have a hump-shaped or concave relationship with employment for men. Education had a strong significant level of association for both men and women in the formal sector but the coefficient of the odds ratio for men was higher than that of women. This shows that men who are more educated enter into the formal sector of employment than women.

To recall in the study, the set objective was to determine the factors accounting for the differences between sex and employment in Ghana. Out of the four hypotheses formulated, three were accepted whereas one was rejected. Men are more likely to be employed than women. Also, men are more likely to be in the formal sector than women. People with a high level of education are more likely to be in the formal sector than people with low level of education were all accepted. Surprisingly, the hypothesis that urban dwellers are more likely to be employed than rural dwellers was rejected. This signifies that being in the urban center does not necessarily mean that one will be employed as was found by Baah-Boateng et al. (2014). Lastly, the study sought to answer the factors associated with sex differences in employment in

Ghana and it was observed that some demographic and socio-economic variables such as age, education, place of residence, region, religion, literacy and marital status were factors accounting for these differences in employment and employment sector outcomes.

6.2 CONCLUSION

Employment is an essential factor that promotes economic growth and development of countries and in most developing countries information on employment is used as a bases for development planning to promote economic development.

The study examined the factors accounting for differences between sex and employment in Ghana. Education was noticed to be a strong predictor of employment and formal sector employment for both men and women. Marital Status was also identified to be a strong predictor of employment and formal sector for men and women which was also consistent with the literature reviewed. Also, other socio-economic variables were found to influence employment status and employment sector specifically place of residence, age and religion.

The results show that age, sex, marital status, level of education, place of residence, the region of residence, literacy and religion are the socio-economic and demographic factors that are associated with sex and employment in Ghana especially as a strong determining factor for men and women in employment and formal sector as seen in Model 111 and 1V.

The results from the analysis show that employment is high in Ghana but mostly among men. In Ghana, 82.2% of people are employed however this study records 85% which is not far-fetched from what was found in literature. It is proposed that the recommendations raised above should be considered by the government and other key institutions as employment is one of the factors that contribute to the development of a country and help achieve the Sustainable Development Goals.

6.3 RECOMMENDATIONS

The study has a potential of influencing policies in the country. Results from the study showed that, the informal sector constitutes the largest labour market that absorbs most employees however as the largest sector it is being characterized with low productivity and poor working conditions (remuneration packages). There should be a minimum wage set for workers in this sector to improve their standard of living especially since women dominate that particular sector.

The educational attainment of most respondents was middle/JHS education. The presence of free compulsory basic education might be a factor for the number of people recorded at the middle/JHS education level. The introduction of the free compulsory Senior High School education has increased the enrollment rates of people from JHS to SHS level. If possible here, there should be an extension of free education to tertiary or higher education. This initiative will help increase the education of people and enhance their employment rates, especially in the formal sector for women. In addition, although there are some scholarship schemes aimed at providing opportunities for women to further their studies, there is the need to ensure effective monitoring of existing ones and also create more proactive schemes that would ensure the transition of more women to higher levels of education (especially from secondary to tertiary levels) which will allow more women to enter the formal sector of employment. This will allow women to compete with their male counterparts in higher levels of employment (e.g. in the areas of management, supervision and administration) which will help bridge the gender inequality in employment sector.

Furthermore, there should be implementation of policies by government and stakeholders to support women's employment rates and their general engagement in the formal sector. The

results indicate that males are more likely to be employed than females, though the former constitutes the higher proportion of respondents among the two categories. A plausible reason cited for this result is the fact that quite a significant number of women spend time in bearing children and providing home care duties and other systematic barriers as well negatively affecting women. In addition, a policy, which can facilitate women's employment rates, is a collaborative effort between government and non-governmental organizations advocating for the reformation of employment policies that ensure opportunity and pay equality especially for women in the country.

The government should implement policies to boost industrialization and other employment avenues. Results from the multivariate analysis show that residents in Greater Accra and Ashanti Region are more likely to be in the formal sector as compared to those in the Western Region. A plausible reason for this result is the industrial and sectoral avenues in Greater Accra and Ashanti Regions as compared to other regions. Greater Accra being the capital region is more industrialized and has better employment opportunities in the formal sector as well as that of Ashanti Region than any of the other regions in the country. The government should implement policies that would ensure that more factories and businesses are established in other regions. One of such policies is the government making sure that all new state enterprises are established at vantage areas in the other regions apart from Greater Accra and Ashanti Region. Another possible policy is government giving incentives to new private businesses or firms that are established in the other regions. Such incentives could be in the form of tax relief. The government can also develop the infrastructure in all the districts in the regions as a way to attract foreign direct investment in those regions. This can create job opportunities in those regions and hence, increase the probability of their residents being employed

REFERENCES

- Abdullah, N., Abdullah, H., and Abuhriba, H.M.O. (2014). The Determinants of Trade and Trade Direction of Arab Maghreb Union (AMU). *Journal of Empirical Economics, Research Academy of Social Sciences*, 2(2), 46-62.
- Addison, T. and Demery, L. (1993). Labour Markets, Poverty and Adjustment. *Journal of International Development*, 5(2)
- AfDB (2015). Empowering Women: An Agenda for Action. Africa Gender Equality Index. www.gender.afdb.org.
- AfDB, OECD, UNDP and UNECA (2012). Promoting Youth Employment. *African Economic Outlook*, www.africaneconomicoutlook.org.
- Aker, J. (1992). From sex roles to gendered institutions *Contemporary Sociology* 21(5), 565-569
- Ali, R.E.K. and Tasnim, K. (2009). Labour Force Participation of Married Women in Punjab, Pakistan. *Journal of Economic and Social Research*, 11(2), 77- 106.
- Anh, T. S. Gubry, P., Vu Thi Hong, & Huguet, J. W. (2013). Migration and employment in Ho Chi Minh City. *Asia-Pacific Population Journal / United Nations*, 11(2), 3–22.
- Antecol, H. and Cobb-Clark, D. (2003). Does Sexual Harassment Training Change Attitudes? A view from the Federal Level. *Social Science Quarterly*, 84(4), 826-842
- Baah-Boateng, W. (2012). *Labour Market Discrimination in Ghana: A Gender Dimension*, LAMBERT Academic Publishing, Germany.
- Baah-Boateng, W. (2014). Empirical Analysis of the Changing Pattern of Sex Segregation of Occupation in Ghana. *International Journal of Social Economics*, 41(8)
- Baah-Boateng, W. (2015). National Employment Report. Integrated Business Establishment Survey. Ghana Statistical Service, Accra Ghana
- Baah-Boateng, W., Adjei, P. and Oduro, A. D. (2013). Determinants of Moonlighting in Ghana: An Empirical Investigation. *African Review of Economics and Finance*. 4 (2), 176–202.
- Baah-Boateng, W., Nketia-Amponsah, E. and Frempong, R. (2013). The Effects of Fertility and Education on Female Labour Force Participation in Ghana. *Ghanaian Journal of Economics*, 1, 119-135.
- Bayanpourtehrani, G. and Sylvester, K. (2012). Female Labour Force Participation and Religion: A Cross-Country Analysis. *Bulletin of Economic Research*, 65(2), 107-133. Oxford: Blackwell Publishing,
- Becker, G.S. (1964). Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. Chicago: University of Chicago Press,

- Behman, J. R. and Zhang, Z. (1995). Gender Issues and Employment in Asia. *Asian Development Review*. 13(2), 1-36
- Behram, J. and Zheng, Z. (1995). Gender Issues and Employment in Asia. *Asian Development Review*, 13(2): 1-49
- Berger, N and Fisher P. (2013). A well-educated Workforce is Key to State Prosperity. Economic Analysis Network Report. Washington DC: Economic Policy Institute
- Berhanu, D., Abraham, T. and Van der Deijl, H. (2005). Employment Strategy Papers: Characteristics and Determinants of youth unemployment, underemployment and inadequate employment in Ethiopia. International Labour Organization, Employment Policies Unit Employment Strategy Department. Geneva
- Bespınar, F. U. (2010). Questioning agency and empowerment: Women's work related strategies and social class in urban Turkey. *Women's Studies International Forum* 33, 52332.
- Boateng, P. and Ganu, J. (2012). Harnessing the Potential of Informal Sector Women for Development in Ghana. 46(61)
- Bombuwela, P. M, De Alwis, A. and Chamaru, A. (2013). Effect of glass ceiling on women career development in private sector organizations: Case of Sri Lanka. *Journal of Competitiveness*, 5(2), 3-19.
- Boserup, E. (1970). *Women's Role in Economic Development*. New York: St. Martin's Press
- Bowen, W., and Finegan, T. (1969). *The Economics of Labor Force Participation*. Princeton University Press. Retrieved from <http://www.jstor.org/stable/j.ctt183pm27>
- Bugra, A. and Savaskan, O. (2014). *New Capitalism in Turkey: The Relationship between Politics, Religion and Business*. Edward Elgar Pub
- Burga, R. and Rezanian, D. (2015). A Scoping Review of Accountability in Social Entrepreneurship. *Sage Journals*, 5(4).
- Chaudhary, R. and Verick, S. (2014). Female labour force participation in India and beyond. New Delhi, International Labour Organization. ILO DWT for South Asia and ILO Country Office for India. ILO Asia-Pacific Working Paper Series.
- Chen, M. A. (2012). The Informal Economy: Definitions, Theories and Policies. Women in Informal Globalizing and Organizing. *WEIGO Working Paper* No 1
- Comola, M. and de Mello, L. (2013). Salaried employment and earnings in Indonesia: new evidence on the selection bias. *Applied Economics, Taylor and Francis Journals*. 45(19) 2808-2816
- Dedeoglu, S. (2010). Visible Hands - Invisible Women: Garment Production in Turkey. *Feminist Economics*. 16(4):1-32

- De Neve, Jan-E and Ward, G. (2017). Happiness at Work. *Saïd Business School Working Paper*. 2017(07)
- Dickens T. W., and Lang K. (1995). *An Analysis of the Nature of Unemployment in Sri Lanka*. National Bureau of Economic Research, Massachusetts Avenue Cambridge.
- Durnel, A. (2010). Sex Differences in Employment: A case study of Turkey.), *Journal of Economics and Social Research* 22(1), 77-106
- Dutta-Gupta, I., Kali G., Matthew, E., and Edelman, P. (2016). *Lessons Learned from 40 Years of Subsidized Employment Programs*. Washington, D.C.: Georgetown Center on Poverty and Inequality.
- Dutta-Gupta, I., Kali, G., Kerksick, J., Bloom, D., and Chaudry, A. (2018). *Working to Reduce Poverty: A National Subsidized Employment Proposal*. The Russel Sage Foundation *Journal of Social Sciences*, 4(3), 64-83
- Echebiri, R.N. (2005). Characteristics and Determinants of Urban Youth Unemployment in Umuahia. Nigeria: Implications for Rural Development and Alternative Labour Market Variables. A paper presented at the ISSER/ World Bank Conference on “Shared Growth in Africa” held in Accra, Ghana, July21-22.
- Equal Rights Advocates (ERA) (2019). Equal Opportunities for Women in Male Dominated Fields, the Advocates.www.equalrights.org.
- Faridi, M. Z., Chaudhry, S. I. and Anwar, M. (2009a). The Socio-Economic and Demographic Determinants of Women Work Participation in Pakistan: Evidence from the Bahawapur District, Pakistan. *A Research Journal of the South Asian Studies*, 24(2), 351-367.
- Faridi, M. Z., Chaudhry, S. I. and Basit, A. B. (2009b). An Analysis of the Determinants of Male Labour Force Participation and Employment Status in Pakistan: The Case of the Bahawapur District, Pakistan. *Journal of Social Sciences*, 29(2), 189-208.
- Foreman, A. (1977). *Feminity as alienation: Women and the family in Marxism and Psychoanalysis*, Londo: Pluto
- Gemmill, A., and Lindberg, L. D. (2013). Short Interpregnancy Intervals in the United States. *Obstetrics and Gynecology*, 122(1), 64–71.
- Getinet, H. (2003). *The Incidence of Youth Unemployment in Urban Ethiopia. Paper presented at the 2nd EAF International Symposium on Contemporary Development Issues in Ethiopia*, 11-13 July, Addis Ababa, Ethiopia.
- Ghana Statistical Service. (2008). *Ghana Living Standards Survey Round 5 (GLSS 5)*. Accra.
- Ghana Statistical Service. (2013). 2010 Population and Housing Census National Analytical Report. Ghana Statistical Service. Accra, Ghana.
- Ghana Statistical Service. (2014). *Ghana Living Standards Survey Round 6 (GLSS 6)*. Accra.
- Ghana Statistical Service (2015). National Employment Reports. Accra

- Giddens, A. and Sutton, P.W. (2013). *Sociology*. 7th Edition, Cambridge: Malden Mass Polity Press
- Global Gender Gap Report (2018). The Global Gender Gap Report. World Economic Forum. Geneva
- Grover, C. and Piggot, L. (2013). Disability and Social (In) Security: Emotions, Contradictions of “Inclusion” and Employment and Support Allowance. *Social Policy and Society* 12: 369-380.
- GSMA Development Fund, Cherie Blair Foundation for Women, and Vital Wave Consulting, (2010). *Women and Mobile: A Global Opportunity, A Study on the Mobile Phone Gender Gap in Low- and Middle-Income Countries*, London, U.K.
- Guarcello, L. and Rosati, F. (2007). Child Labor and Youth Employment: Ethiopia Country Study. *Social Protection Paper*.0704
- H'madoun, M. (2010). Religion and Labor Force Participation of Women. *Research Paper* (2010-007). Belgium: University of Antwerp press.
- Hafeez, A. and Ahmad, E. (2002). Factors Determining The Labour Force Participation Decision of Educated Married Women In A District of Punjab, Pakistan. *Pakistan Economic and Social Review*, 40 (1), 75-88.
- Ham, V. M. and Buchel, F. (2004). Females Willingness to Work and the Discouragement Effect of a Poor Local Provision. *Applied Economics Quarterly*.4
- Hart, O. and Moore, J. 2008. Contracts as Reference Points. *Quarterly Journal of Economics*, 123(1), 1–48.
- Heintz, J. and Posel, D. (2008). Revisiting informal employment and segmentation in the South African Labour market. *South African Journal of Economics*, 76(1), 26-44
- Ilkcaracan, I. (2012). Why so Few Women in the Labour Market in Turkey? *Feminist Economics*, 18 (1), 1-37.
- International Labour Office (ILO). (2008). Global Employment Trends for Youth. Paths to a better working future. Geneva. ILO
- International Labour Office (ILO). (2017). Global Employment Trends for Youth. Paths to a better working future. Geneva. ILO
- International Labour Office (ILO). (2017). World Employment and Social Outlook. Trends for women. Geneva. ILO
- International Labour Office (ILO). (2017). World Employment and Social Outlook. Sustainable enterprises and jobs: Formal enterprises and decent work. Geneva. ILO
- International Labour Office (ILO). (2018). World employment and social outlook: Trends Geneva.
- International Labour Organization (2013). Report on the Meeting of Experts in Labour Statistics on the Advancement of Employment and Unemployment, Geneva, 28 January – 1 February

- International Monetary Fund (2013): *Women, Work and the Economy: Macro-Economic Gains From Gender Equity. IMF Staff Discussion Note.* (SDN /13/10). September, 2013. Strategy, Policy and Review Department and Fiscal Affairs Department. International Monetary Fund. Washington, D. C.
- International Organization for Migration (IOM) (2015). *World Migration Report: Migrants and Cities: New Partnerships to Manage Mobility.* International Organization for Migration, Geneva
- Issahaku, P. A. (2015). Health implications of partner violence against women in Ghana. *Violence and Victims.* Sage Journals 30, 250-264. Doi: [10.1891/0886-6708.VV-D-13-00075](https://doi.org/10.1891/0886-6708.VV-D-13-00075)
- Kabeer, N. (2012). Women's economic empowerment and inclusive growth: labour markets and enterprise development. SIG Working Paper.
- Kalil, A. (2005). Unemployment and Job Displacement: The Impact on Families and Children. *Ivey Business Journal.* Issue July/August, pp. 1-5.
- Karaoglan, D. and Okten, H. C. (2012). Labour Force participation of Married women in Turkey: A study of the Added-Worker Effect and the Discouraged –Worker Effects. *Emerging markets Finance and Trade*, 5(1), 274-290
- Kardam, F. and Toksoz, G. (2004). Gender based Discrimination at work in Turkey: A cross-sectoral overview. *Ankara University. The Journal of Faculty of Political Sciences*, 59, 151-172.
- Khamis, M. and Akay, A. (2011). The Persistence of Informality: Evidence from Panel Data, IZA Discussion Papers 6163. Institute of Labor Economics (IZA).
- Khan, R. E. A. and Khan, T. (2009). Labour Force Participation of Married Women in Punjab (Pakistan), *Journal of Economics and Social Research* 11(2), 77-106
- Koto, P. (2015). An Empirical Analysis of the Informal Sector in Ghana. *Journal of Developing Areas*, 49(2), 93-108
- Kowalski, T.H.P and Loretto, W. (2017). Well-being and the HRM in the changing workplace, *The International Journal of Human Resource Management*, 28(16), 2229-2255.
- Krishnan, P., Tsefaye, G. S. and Stefan, D. (1998). The Urban Labour Market during structural adjustment: Ethiopia 1990-1997. *CSAE working paper series from Center for the Study of African Economies*, University of Oxford.
- Laidi, Z. (2008). How Trade Become Geopolitics. *World Policy Journal.* 25(2), 55-61
- Lengfelder, C. (2016). Policies for Human Development. UNDP Human Development Report. Background paper. New York.
- Magidu, N. (2010). Socio-Economic Investigation into Determinants of Labour Force Participation in Labour Markets; Evidence from Uganda. Economic Policy Research Center. Makerere University, Uganda.

- Mammen, K. and Paxson, C. (2000). Women's work and economic development. *The Journal of Economic Perspectives*, 14(4), 141–164.
- Mei, J. (2014). *The Gender Gap in Labour Force Participation in Canada*. Unpublished M.A. Dissertation. Canada: University of Ottawa press.
- Mishra V.K. and Retherford R. D. (2000). Women's Education can improve child nutrition in India, Natl FAM Health Sur Bull
- Mollet, J. A. (2011). *Female Labour Force Participation and Economic Development in West Papua*. Newcastle: Cambridge Scholars Publishing.
- Mussida, C. and Picchio, M. (2014). The Gender Wage Gap by Education in Italy. *Journal of Economic Inequality*, 12 (1), 117-147
- Nam, S. (1991). Determinants of female labor force participation: A study of Seoul, South Korea, 1970-1980. *Sociological Forum*, 6(4), 641-659.
- Nicholas, A., Mitchell, J. and Lindner, S. (2013). *Consequences of Long Term Unemployment. Research Report*. Washington, D.C: The Urban Institute Press.
- Oduro et al. (2011). Measuring the gender asset gap in Ghana. Department of economics, University of Ghana: Legon.
- Organization for Economic Cooperation and Development OECD (2019). Development Co-operation Report: Data for Development, Paris: OECD Publishing,
- Organization for Economic Cooperation and Development (OECD) (2001). *The Well-being of Nations: The Role of Human Capital Education Policy Analysis*, OECD publications. Paris
- Ortiz-Ospina, E. and Tzvetkova, S. (2017). *Working Women: Key facts and Trends in Female labour Force Participation*. Our World Data, Oxford: University of Oxford Press.
- Pastore, F. and Tenaglia, S. (2013). *A Test of the Impact of Religion on Female Labour Supply*. IZA Discussion Paper. (No 7356). Bonn, Germany
- Patacchini, E., Cipollone, A. and Vallanti, G. (2013). *Women Labour Market Participation in Europe: Novel Evidence on Trends and Shaping Patterns*. IZA Discussion Paper. (No. 7710). Bonn, Germany.
- Peterson, H. C. and Lewis, W. C. (1999). *Managerial Economics*. Fourth Edition. Prentice Hall; London: Economics and Finance Faculty Publications.
- Pierce-Brown. R. (1998). An Application of Human Capital Theory to salary differentials in the Accounting Profession. *Women in Management Review*. ISSN 0964-9425
- Pradhan, P., Costa. L., Rybski, D., Lucht, W. and Kropp, P. J. (2017). A systematic Study of the Sustainable Development Goal (SDG) Interactions. *Earth's Future*. 5(11).
- Rahmah, I. and Idris, J. (2012). Gender Wage Differentials and Discrimination in Malaysian Labour Market. *World Applied Sciences Journal*. 19(5):719-728. IDOSI Publications, 2012.

- Rahmah, I. and Idris, J. (2012). Gender Wage Differentials and Discrimination in Malaysian Labour Market. *World Applied Sciences Journal*, 19(5), 719-728. IDOSI Publications, 2012.
- Ritchie, H. and Roser, M. (2019). Urbanization. *Our world in Data*. Retrieved from: <https://ourworldindata.org/urbanization>
- Rolleston (2009). Human Capital, Education and Exclusion: The case of Ghana 1991-2006. CREATE pathways to Access Monograph 22. London/Sussex: CREATE
- Roopnarine, A. K. and Ramrattan, D. (2011). Female Labour Force Participation: The Case of Trinidad and Tobago. *Central Bank of Trinidad and Tobago Working Paper*. 01(2011), 1-11
- Rubery, J. and Rafferty, A. (2013). Women and recession revisited. *Work, Employment and Society*. 27, 414–432
- Sackey, H. A. (2005). Female Labour Force Participation in Ghana: The Effects of Education. *AERC Research Paper 150*. African Economic Review Consortium, Nairobi, Kenya.
- Sackey, H. A. and Osei, B. (2006). *Human Resource Underutilisation in an Era of Poverty Reduction: An Analysis of Unemployment and Underemployment in Ghana*. African Development Review, 18(2), 221–247.
- Saxonberg S. (2014). Historical-Institutional Development. In: *Gendering Family Policies in Post-Communist Europe*. Palgrave Macmillan, London
- Serneels, P. (2007). The Nature of Unemployment among Young Men in Urban Ethiopia. *Review of Development Economics*, 11(1), 170-186.
- Siphambe, H. and Motswapong, M. (2010). Female Participation in The Labour Market of Botswana: Results from 2005/2006 Labour Force Survey Data. *Botswana Journal of Economic*. 7(11), 65-77.
- Siphambe, H. K. (2007). Growth and Employment Dynamics in Botswana: A Case Study of Policy Coherence, Geneva: Policy Integration and Statistics Department. ILO, Working Paper No. 82
- Smith, N. and O’Keefe, P. (1980). Geography, Marx and the Concept of Nature. *Antipode* 12(2)
- Songsore, J. (2003). Towards, a better Understanding of Urban Change: Urbanization, National Development and Inequality in Ghana, (Accra: Ghana Universities
- Srivastava, R., & Sasikumar, S. K. (2003). An overview of migration in India, its impacts and key issues. In *Regional Conference on Migration, Development and Pro-Poor Policy Choices in Asia* (pp. 22-24).

- Tansel, A. (2002). Economic Development and Female Labor Force Participation in Turkey: Time-Series Evidence and Cross-Section Estimates METU/ERC Working Paper 02(3).
- Tasnim, K, and Khan, R. E. A. (2015). Urban Informal Sector: How much women are struggling for family Survival. *Pakistan Development Review*, 48(1), 67-95.
- Tembon, M., and Fort, L. (2008). *Girls' education in the 21st century: Gender equality, empowerment, and economic growth*. Washington DC: World Bank.
- Temitope, L. (2013). Does Economic Growth Lead to Employment in South Africa? *Journal of Economics and Behavioral Studies*. 5(6), 336-345
- Ulrichs. M. (2016). Informality, women and social protection: Identifying barriers to provide effective coverage. *ODI working Paper*. London: ODI
- UNDP Global Programme 2014-2017. United Nations Development Programme. One United Nations Plaza. New York.
- United Nation Millennium Development Goals. Millennium Report of the Secretary-General Accessed on 12th May 2019 <http://www.un.org/millenniumgoals>
- United Nations Economic and Social Council (UNECA) (2015). Annual Report. United Nations Development Programme. New York.
- Uraz, A., Aran, M., Husamoglu, M., Sanalmis, D. O. and Capar S. (2010). Recent Trends in Female Labour Force Participation in Turkey. *State Planning Organization of the Republic of Turkey and World Bank; Welfare and Social Policy Analytical Work Program Working Paper*. 2, 1-21.
- Van Ham, M. and Buchel, F. (2006). Unwilling or Unable? Spatial and Socio-economic Restrictions on Female's labour market Access, *Regional Studies*, 40, 345-357
- Verick, S. (2014). Female Labor Force Participation in Developing Countries. *IZA World Labor*. Institute of Labor Economics, 1-87
- Waldfoegel, J. (1998). Understanding the "Family Gap" in Pay for Women with Children. *The Journal of Economic Perspectives*, 12(1), 137-156. Retrieved from <http://www.jstor.org/stable/2646943>
- Waldfoegel, J. (2011). Family-friendly policies. In: Gregg, P, Wadsworth, J (eds) *The Labour Market in Winter: The State of Working Britain*. Oxford: Oxford University Press, 144–152.
- West, Candance and Zimmerman, Don (1987). Doing gender. *Gender and Society*, 1:125-151
- Were, M and Kiringai, J (2004). Gender Mainstreaming in Macroeconomic Policies and Poverty Reduction Strategy in Kenya. African Women's Development and Communication Network, Nairobi.
- Winters. J.V. (2018). Do higher levels of Education and Skills in area benefit wider society? IZA world of labour. Doi: 10.15185/izawol.130.v2
- World Bank (2012). World Development Report. Gender Equality and Development. Washington DC, The World Bank

World Economic Report (2018). The Global Gender Report. World Economic Forum,
Geneva, Switzerland

Yakubu, A. Y. (2010). Factors Influencing Female Labour Force Participation in South Africa in

2008.TheSouthAfricanStatisticalJournal.11,85-102.

