UNIVERSITY OF GHANA

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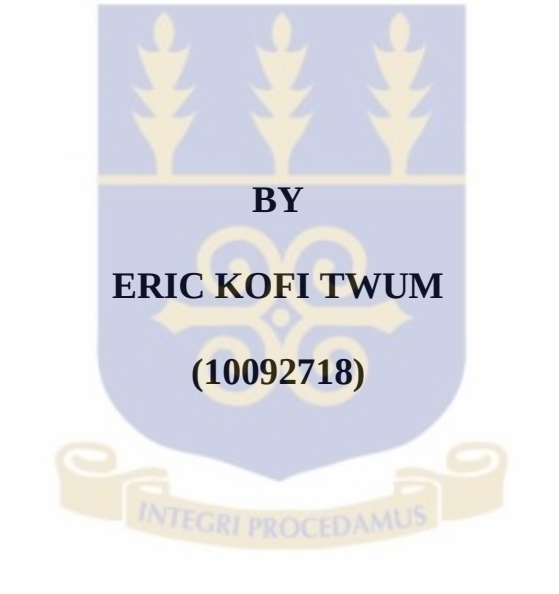
INFORMAL CONTACTS AND JOB TENURE: AN EMPIRICAL INVESTIGATION IN GHANA



BY

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DECLARATION

I, Eric Kofi Twum, certify that this study is the result of an empirical investigation undertaken in partial fulfillment of the award of a Master of Philosophy Degree in Economics at the Department of Economics, University of Ghana, Legon and has not been presented in any other institution. Except the references which are duly recognized, no other material in this thesis has been published or written by any other person.

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DEDICATION

This thesis is dedicated to my Dad, my entire family for their material, moral and spiritual support given me throughout the period of my studies.

ABSTRACT

This study was undertaken mainly to test the hypothesis that the employer-employee match is improved when workers resort to informal contacts in the job search process. Empirical literature on the impact of the latter search medium on tenure though limited concludes that jobs obtained through the help of a worker's friends and relatives last longer. Findings from this study are however at variant with this strand of economic literature. The study which used a sample of 150 formal sector workers drawn from specific subsectors in the service sector and adopted a Cox proportional hazard model found that the first jobs obtained by workers through the help of their friends and relatives as against formal means (direct applications, newspaper adverts and recruitment agencies) do not last long. This negative relationship loses its relevance when controls are made for individual and firm-level characteristics.

A further disaggregating of the informal means into male and females contacts produced mixed results. Shorter tenure is observed for jobs acquired through female relatives and friends as compared to those obtained through informal males and formal means. Generalizations from this study should be done with care due to the small sample size and limitation of the analysis to the first jobs of sampled workers. With limited studies on the relationships between social networks in the job search process and post-hire outcomes in Sub-Saharan Africa (wages, job satisfaction, job tenure among others), this exploratory study provides some foundation for further research.

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I would also like to thank my colleagues and friends as well as family members who aided in reaching out to various organizations in the administration of my questionnaires and in some cases offered a token to cater for some of the expenses incurred in the distribution of my questionnaires giving credence to the importance of social networks in our everyday activities.

It is my pleasure to acknowledge the valuable contributions and prayers made by my parents especially my Dad, Mr. Peter Defie (Jackie), mums and all my siblings. Full responsibility of any errors and omissions are borne by me.

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ABBREVIATIONS

2SLS	Two Stage Least Squares
ERP	Economic Recovery Programme
ESSI	Cameroonian Survey on Employment and Informal Sector
GDP	Gross Domestic Product
GLSS	Ghana Living Standards Survey
GSS	Ghana Statistical Service
ILO	International Labour Organization
ISSER	Institute of Statistical, Social and Economic Research
JHS	Junior High School
JSS	Junior Secondary School
NDMW	National Daily Minimum Wage
NLSY	National Longitudinal Survey of Youth
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Squares
SAP	Structural Adjustment Programme
SHIW	Survey of Household Income and Wealth
SHS	Senior High School
SNSSE	Survey of Natural and Social Scientists and Engineers
SPSS	Statistical Package for the Social Sciences
SSS	Senior Secondary School
US	United States

Chapter One

Introduction

1.1 Background

Economists and sociologists have sought to examine the relationship between social capital (use of informal networks) and labour market outcomes particularly in developed countries with few empirical studies in labour market analysis in developing countries. Within the Ghanaian labour market, the informal sector employs a larger chunk of the labour force (Baah-Boateng, 2015), as such seeking for employment in the formal sector is a priority for entrants into the labour force. Workers look up to this sector not only for the wage offered but the other pecuniary and non-pecuniary characteristics of jobs in that sector. New entrants in the labour market and workers moving from one job to another must undertake some form of search to ensure that job offers generated and accepted come with better conditions of service, higher job satisfaction and offer better career prospects.

The search method used by individuals entering the labour market has implications on job offers received and accepted. The more search methods used by a worker (search intensity), the greater the likelihood of a better offer received. However, for unemployed workers and on-the-job searchers, there exists information asymmetry as to the characteristics of jobs being offered by prospective employers.

The methods of search that are available to workers are broadly grouped into formal and informal means [1] (Rees, 1966). Using any of these methods of search depends on the costs and its effectiveness in generating a job offer. A jobseeker however incurs both direct monetary outlays and forgone earnings during search till the right match is made. Stigler (1962) posits that a prospective employee faces the problem of how to acquire information on wage rates and stability of employment (job tenure). But information to be obtained is imperfect, and obtaining such information can be costly (Stigler, 1961). Thus, informal contacts can help a worker to obtain more information about a job and is often resorted to due to its lower cost (Granovetter, 1995). The costs incurred when one resort to the use of social networks (informal contacts) is cheaper since workers use social contacts already in place and need not invest in constructing them (Granovetter[b], 2005) compared to formal means which require continual investments.

Much of the uncertainty surrounding a particular job offer is reduced when the prospective worker has "insider information"[2] as to what the job in question entails. Studies on the usage of social networks (informal contacts) in the job searching and finding process show that returns (generation of jobs) from this medium seem to be higher in relation to other methods. Blau and Robins (1990) and Holzer (1988) found that more offers found through informal sources were received and accepted compared to formal sources. Thus, getting information from employed relatives, friends and other social contacts is more reliable and less costly since one will be privy to adequate

[1] Formal sources of job information are the publicly available hiring channels such as newspaper advertisements, employment agencies, internet and other placement services. Informal sources on the other hand include referrals from relatives, friends and acquaintances, and direct/indirect contacts through social networks.

[2] "Insider information" refers to information obtained from one's contact on the job or employed contacts with regard to offered jobs, wages and other non-pecuniary characteristics of the job a jobseeker is interested in.

knowledge about employers as against getting them formally from prospective employers or through one's experience on the job (the job shopping hypothesis[3]) as formulated by Johnson (1978). Within the context of the Ghanaian labour market, more than four (4) out of ten (10) job seekers (46.7%) indicate that the most important search method they used in acquisition of information about jobs availability is through friends and relatives (Ghana Statistical Service, 2014). More individuals may resort this medium due to its efficacy in generating job offers or ensuring a better match between an employer and a prospective worker.

Information about jobs obtained by job seekers can enrich their decision as to the acceptance or rejection of a job offer. Employed contacts[4] of job seekers can facilitate their acquisition of information in relation to the availability of jobs, wage and other non-pecuniary attributes of jobs. Some of the non-pecuniary characteristics of a job offer which can be made known by these contacts include location of the workplace, employers' adherence to safety regulations, career advancement opportunities, and job stability (tenure). If workers have information from employed contacts and other contacts (those not employed with a prospective employer of a job seeker but have some form of contact with both the job seeker and the employer), then they will know before accepting a job offer, the suitability and attributes of the job that one may have difficulty in obtaining or incur high cost in accessing if one has no such contacts. Through employed contacts, workers obtain better information about jobs and self-select themselves into those that better fit

[3] In a study by Johnson (1978), Job shopping connotes the search for a suitable job when workers cannot predict either their performance in or their liking for a particular job due to the fact that some characteristics of potential offers cannot be ascertained when searching but can only be known through actual employment experience.
[4] Employed contacts used in this context refer to friends and relatives of job seekers who are engaged with their prospective employers.

their characteristics, thus improving the average quality of matches created through informal methods (Saloner, 1985).

In addition to enriching the chances of obtaining a job, the use of informal methods can ensure that the job obtained is a better match (Jovanovic, 1979) for the individual in terms of both the pecuniary and non-monetary aspects. This is because informal networks of workers are also well-informed about their qualifications and educational attainments and can help to generate an offer that they believe is a good match suiting the educational attainments of prospective workers (Franzen and Hangartner, 2006).

Within economics and sociological literature, some studies that have tried to establish a link between informal means in obtaining a job and post-hire outcomes (wages, job satisfaction and job tenure). In relation to wages, most of the studies conclude that there is a wage premium associated with individuals who use informal contacts in the job seeking process while others indicate that those premiums are as a result of individual heterogeneity. In the study of whether friends and relatives really help in getting a good job, Pellizzari (2003) found that in some countries personal contacts lead to better paying jobs, while the opposite occurs in others. The reason was attributed to differences in the labour markets of the countries considered.

The wage premium of applicants who used employed contacts in the job seeking process can be due to the fact that people tend to have social ties with similar persons, such that employers proxy the unobserved characteristics of applicants with those of their referees (Montgomery, 1992). This is buttressed by the suggestion that informal contacts of unemployed workers/job seekers may

refer only good applicants because their reputation is at stake, hence those who are less endowed will find it difficult to have referees (Kugler, 2003). This wage advantage however, diminishes over time as the productivities of both those who had such contacts and the productivities of those without such contacts will be revealed in the post-employment period.

Other studies have also revealed that workers who used informal contacts in securing their current jobs may earn lower wages ((Beggs and Hurlbert 1997, Mencken and Winfred 2000, and Franzen and Hangartner, 2006)). The reasons given in these studies are that workers who resort to such means have to accept low wages as they may face difficulty in accessing jobs through formal means or did not search intensively (using more search methods) for better offers.

If much information about a job can be obtained by a worker (through informal contacts) before a job offer is accepted, then there is a greater likelihood of a better match made between a firm and a worker. In addition, workers can also be attached socially to an organization if they have friends and relatives also employed within the firm and can help to ensure that they are properly integrated through mentoring and informal training (Fernandez et al, 2000). Workers who are better-matched to particular jobs will not sever their employment relationship quickly with an employer and thus will be less likely to quit (have longer tenure). Once a worker stays with an employer for a long period, it may indicate that his productivity have been rightly revealed as those whose productivities are revealed to be low will self-select themselves out of those jobs (Jovanovic, 1979).

1.2 Significance and Problem Statement

The lack of labour market information system in most developing countries makes it imperative for individuals who are either entering employment for the first time or workers who decide to move from one job to the other to find alternative means of obtaining such information from informal contacts. Most jobs advertised or posted in Ghana also do not come with wage offers and other conditions of work. Thus any means of obtaining such information will be a worthwhile one. Apart from wage offers that accompanies a job, workers consider other characteristics (both monetary and non-monetary) which can be made known through their informal networks. These non-pecuniary attributes may compensate for the initial low wage offered by employers.

Job tenure measures the length of time employed persons have been in their current or main job (self-employed workers) or with their current employer (ILO, 2012). Job tenure is further comprehensively defined as the number of consecutive months or years a person has been employed by his current employer, (Statistics Canada, 2012). In addition, a person is considered to have continuous tenure if his employer has not changed and the worker may have worked in one or more occupations or in one or more locations or have experienced periods of temporary layoff with recall. The length of time currently employed individuals have spent with their present employers is a commonly used variable in labour market studies that focuses on labour market stability. In some instance, one can assume higher average job tenure during economic booms and shorter average job tenure in recessionary periods.

A look at job tenure is also important because workers employed for the longer periods have more chance to build up skill, may earn a higher wage and gain access to career advancement

opportunities (Heisz, 1996). However, workers who do not stay with their employer for long lose experience and accumulation of their pensions are hampered.

A worker's usage of social ties (friends and family as well as acquaintances) in obtaining a job can help to generate an offer with higher wages, better conditions of work resulting in lower quits (longer tenure). Good jobs can also be rationed to workers or individuals with quality contacts (Staiger, 1990). There however exist limited literature on the use of informal means in the acquisition of a job and its impact on tenure. Few of such studies have been sighted. The impact of old boy networks on job tenure was analyzed using a dataset of workers (mainly scientists) by Simon and Warner (1992). They found that those who are referred by employed contacts (old boy networks) are able to obtain a better offer and have longer job tenure. An empirical study of the use of informal networks in obtaining a job and its impacts on job tenure was also analyzed using two hypotheses (better matches and limited choice hypotheses) by Loury (2006). This empirical investigation reports that in the case of better matches, workers who obtained jobs through high-wage contacts (male informal networks) get jobs that pay more, come with greater worker satisfaction resulting in longer tenure. For the limited choice hypothesis, a prospective worker using low-wage contacts (female contacts) also generates longer job tenure signaling a limited range of job alternatives. The reference for the disaggregated informal contacts used in the study was formal methods of obtaining a job.

There however exists limited empirical studies on the link between the usage of social networks in the job finding process and post-hire outcomes in Sub-Saharan countries. A study which uses a dataset from a Sub-Saharan African country (Cameroon) was undertaken by Yogo (2011) but the

objective of that study was to find out if social networks had any impact on job quality in terms of both monetary (captured by wage) and non-monetary (captured by a combination of social protection and job security) outcomes. Even though an empirical study has been undertaken on the determinants of job tenure in the banking industry by Sarfo-Agyemang (2012), no known empirical study has examined the use of informal method as against formal channels as against formal methods and its impact on job tenure in Ghana. The only study that relates to this study examined the determinants of job search intensity (the efficacy of the number of search methods a job seeker uses in escaping unemployment (Nyarko et al., 2014) Theories about the relationship between social network usage in the labour market and post-hire outcomes have also received little empirical testing in developing countries such as Ghana. This has motivated this study which will provide evidence as to the relationship between informal means of obtaining a job and job tenure.

This study will be of importance to individuals, firms and policy makers in their job search behavior, hiring and policy formulation processes respectively. It will examine the importance of social capital formation (whom you know) in addition to human capital investment (what you know) as those who have a wide array of quality contacts are more likely to be employed and remain with the matched employer (as more information of the job will be known before an offer is accepted). The study will also add to the existing literature on job search methods used and its impact on labour market outcomes especially in developing countries and provide a foundation for future research. Because to the best of the author's knowledge there exist no research on use of informal contacts in the search process and its impact on labour outcomes especially job tenure in Ghana, the need arises to examine how the use of informal contacts in obtaining a job impact job tenure in Ghana.

This study will therefore help to find answers to the following questions:

i. Which search methods are frequently used by employed workers?

ii. Which search methods are more relevant in the generation of job offers?

iii. Do workers who use informal search methods in obtaining jobs have longer job tenure?

1.3 Objectives of the study

The broad objective of the study is to determine if workers who obtained their jobs through informal means as against formal methods have longer tenure. Specifically the study will help to:

i. Determine the search method frequently used by employed workers.

ii. Find out the search methods that ensure a match between workers and firms.

iii. Determine whether workers who acquired their jobs through informal means rather than formal channels have longer job tenure.

1.4 Methodology and Data

The study uses primary data to investigate the job search behavior and labour market outcomes in Ghana. Structured questionnaires are administered to three hundred (300) workers employed in the banking, educational (Universities) and telecommunication industries as well as those in the civil service in Accra. This targeted sample size is resorted to largely due to budgetary and time constraints. Workers sampled were asked to respond to questions relating to how long they have worked with their current and previous employers if any.

Information on the most important search method that facilitated a workers' engagement with those employers were collected and disaggregated into formal and informal means. In addition,

information was sought from workers about their individual and personal characteristics together with the nature of the firms they worked/are working for. Duration/Survival models are used to determine the extent to which search method used (informal versus formal methods) impacts job tenure.

1.5 Organization of the study

The rest of the study is structured as follows. Chapter Two is devoted to a review of the theoretical and empirical literature on job search, social networks in the labour market and how they impact on labour market outcomes. Chapter Three gives an overview of job tenure within the Ghanaian labour market followed by Chapter Four which focuses on methodology and data and empirical findings. The summary, conclusions and recommendations are outlined in Chapter Five.

Chapter Two

Literature Review

2.0 Introduction

There exist a vast array of literature on how social networks impact labour market outcomes. This chapter carries out a review of the literature on informal job search methods and its impact on wages and job tenure of workers. The chapter is divided into three sections: Section 2.1 entails definition of certain terms used throughout the review; Section 2.2 presents theoretical models of job search and the impact of informal job search methods (social networks) in job acquisition on labour market outcomes. The last section reviews the empirical literature on informal job search methods and their impact on labour market outcomes.

2.1 Definitions and Concepts

Job Search

Green et al. (2011) defines job search as "the process that has the objective of matching (pairing) job seekers with suitable job opportunities". Such a process is usually embarked on by the employed as well as unemployed individuals in their quest to maximize utility from a better offer than the current job held by the former or a new job offer in the case of the latter. A job search method involves various means through which individuals obtain jobs in the labour market. Earlier studies in the literature have classified these means into two broad categories: formal and informal search channels (Rees, 1966). Formal search methods in this study involve the process through which an individual secures a job offer through responding to newspaper, radio and television advertisements, school or public notices, private employment agencies and the internet. On the other hand, informal job search methods involve search methods through referrals from employees

(employed contacts of workers), using friends, relatives and acquaintances to obtain information about job opportunities and offers. Even though in few cases, the literature considers applying directly to an employer as an informal means of obtaining a job offer, in the context of this study, such a method is taken as a formal one (similar to Rees, 1966 and Yogo, 2011). Applying directly is more of a publicly available channel than an informal means.

Job Tenure

Job tenure has been defined in much of the literature in many ways. The term in some cases is used interchangeably as employee tenure. According to the Bureau of Labour Statistics (2014), employee tenure measures how long wage and salary workers have been with their current employer and to the ILO (2012), job tenure focuses on the duration workers have been with their current or main job or with their current employer. The study will combine the two definitions given above when job tenure is referred to. As such within this study job tenure basically will be referred to as how long workers have been with their employer either engaged as full-time or part-time employees. This latter definition is resorted to as it makes it emphasis the duration of stay without regard to the nature of employment contract between the worker and employer.

2.2 Theoretical Literature

In analyzing job search, various theorists have tried to provide an explanation for the job search behavior of workers. Classical economists assume that in microeconomic analysis of individuals participation in the labour market there exist perfect knowledge but in reality frictions exist in the labour market as in other markets, thus, search usually come with cost as well as benefits. Stigler (1962) postulates that an individual searching for wage offers will continue to search until the

expected marginal cost of search equals the marginal gains of search. Thus according to him, the larger the cost of search , the less search that will be undertaken by a worker and the search is less costly when the future is readily identified by a prospective worker. Expenditure incurred by a worker basically includes transportation costs and forgone earnings whereas the benefits of the search are the wage offers received from employers. A worker's likelihood of obtaining a job offer positively correlates with how long he/she searches but this comes at a higher cost. Stigler's thesis fails to identify the optimal number of searches that must be undertaken by an individual for his additional cost to be at par to his marginal benefit.

Workers also search for jobs with wage rates that they believe commensurate with their abilities irrespective of the marginal cost and benefit of searching. This is what McCall (1970) described as the "minimum acceptance value". To McCall, the amount of search an individual undertakes depends on the wage rate that he thinks his services can command in the labour market incorporating the expenses associated with searching. The individual will continue to search if the job offers received is below this minimum acceptance value (reservation wage). Employment will therefore commence whenever the minimum acceptance wage exceeds the cost of search. Compared to Stigler's hypothesis, McCall's analysis seems practical as it is difficult for a worker to measure both the marginal cost and marginal benefit of search but his minimum acceptance wage can be painlessly be determined. Both theories however assume that the jobseeker knows both the distribution of wages for the skills possessed and the cost of generating a job offer an assumption which is too trivial.

Workers in some cases accept a job which comes with a lower wage even if it falls below their minimum acceptance wage. This is because such an acceptance may be cushioned by other beneficial attributes of the job offered such as job security, career advancement opportunities and higher earnings associated with longer tenure.

Initially, theories of job search concentrated on search behavior mainly by unemployed individuals, job search is also undertaken by those already employed. Employed individuals engage in on-the-job search in order to obtain better offers from employers as against the incumbent jobs. Decisions of this nature have implications for whether they will quit their current jobs and be better matched to employers who may offer higher earnings and better conditions of work. Burdett (1978) in adding to the theory of job search showed that employed individuals also search for jobs and refuted the assertion by previous studies that once a job offer is accepted by a job seeker, he will not continue to search for a better offer whiles employed. In his theory of employee search, Burdett showed that under certain circumstances a worker will either stay with a particular employer or continue to embark on job search. To Burdett, a worker will be better off staying with a particular employer after a search period if the cost of looking for a new job while employed is high.

On the other hand, if the cost of searching for a new job while employed is lower, the worker will embark on search such that an employed worker looking for a new job will accept any offer received with a wage greater than his current wage. Employed workers incur cost in searching some of which include forgone earnings and leisure. Burdett's analysis however is limited in its assertion that the employed worker will accept any job once the wage offer received from search

is higher than the worker's current wage. Here again, the current job of an employed individual may come with pecuniary and non-pecuniary features which the worker may not be compensated for on a new job found even if the current job being held comes with a lower wage.

As an extension to Burdett's theory of on-the-job search, Mortensen (1986) postulates that a worker accepts the first job that compensates for the value of his leisure and then continues to search with an intensity that equates his marginal cost and return to effort. That is, a worker is willing to participate in the labour market if and only if his reservation wage is at least as large as the value of his leisure and return to search given his reservation wage is as large as the out-of-pocket costs of search. The model implies that the reservation wage increases with the value of leisure and decreases with both the cost of search and subjective interest rate.

Job search should not only be looked at from the job seekers' perspective, as it takes both the employer and worker to make a match. Filling this gap, Pissarides (2000), showed that the gains obtained from the creation of job vacancies should be equal to the set-up costs. Jobs are created up to the point where the value of the vacant position as regards the productivity of the filled vacancy is equal to the set-up costs: advertising and recruitment cost together with the productivity forgone of having an unfilled vacancy. The theory holds that job search is costly and offers arrive for searching workers whether unemployed or employed and if a worker is earning a wage of say, *w* now and a higher wage is offered , the worker accepts the new offer only if it is above his current wage (reservation wage).

Analysis examined so far have not indicated the number of searches (search intensity) to be undertaken by a worker to maximize returns.

Reformulating Stigler's theories of economic information, (see Stigler, 1961 and 1962); Gronau (1971) showed that even under conditions of perfect knowledge of future market situations, the maximization of expected income (or utility) will lead to a reduction of the job seeker's real wage as search continues as there exist psychic earnings for a worker being employed and one's asking wage in the past has an effect on his asking wages in the future. A job hunter will have to devise an optimal strategy to determine an asking wage at each point in time. Gronau's theory assumes that an offer not accepted earlier is as an offer lost and a worker has no alternative job offer to fall back on. An ideal search strategy changes through time due to its nature and as a result of unexpected changes in the labour market or hitherto unknown information made available in the course of search).

If a worker's current income is high, the higher will be his asking wages and an employed individual is more likely to be choosy than an unemployed job seeker. Existence of good returns to seniority and on-the-job training make the forgone returns from continued search high and a worker has a tendency to accept a low-wage job reducing his length of search. An optimum search policy for a worker should not only yield answers as to how long to search but also about the other relevant information in terms of combination of inputs and amount of resources that should be invested in the search process. The theory predicts that if the cost of information about jobs becomes prohibitive, then the employed job seeker may invest in market inputs in the search

process and may stop searching if the expected gains from searching cannot compensate him for the income lost in his present employment.

An individual worker does not just knock randomly on the doors of employers but strategically do so to maximize gains from search as the cost of search may be prohibitive with regard to a random search for offers. Salop (1973) indicated that random sampling of prospective employers by a worker involved a huge cost and as such individuals sample specific firms in a systematic manner. Workers know certain firms pay higher than average wages while others pay lower wages. Whether or not firms are hiring labour in the current period can be ascertained by job seekers (especially though their social networks and newspaper ads). In the context of the Ghanaian labour market, the absence of unemployment insurance, reliable social protection schemes, labour market information systems make the cost of search very high. It will therefore be expedient for job seekers especially those unemployed to embark on search in a selective manner. Salop further argues that the searcher may be willing to pay a fee to search systematically rather than random sample the labour market. This explains why individuals in some cases pay fees to private employment agencies in order to minimize the random cost of search through their operations.

Much of the theories of search apart from Pissarides (2000) in a way concentrated on the supply side without incorporating the behavior of firms or employers (partial equilibrium analysis). Van den Berg (1999) theory on job search basically address these concerns with the explanation of the equilibrium wage dispersions out of search frictions itself and out of heterogeneity of workers/ and or firms. The study highlights that employers responds to policy measures in the general search model. For instance, if there is an imposition of minimum wage by government, it will affect

offered wages by employers and the whole general job search process undertaken by individual job seekers.

Searching for jobs by individuals in the labour market requires various methods if a successful match is to be made between a firm and a job seeker. Job search methods have been dichotomized in the literature into formal and informal methods. According to Rees (1966), formal method of search includes the usage of employment centers, employment agencies, responding to newspaper advertisements, school or public notices. Informal methods involve search through references from employees (employed contacts of job seekers and other individuals connected to both the employer and prospective employee but not working for the latter), friends and relatives and other known acquaintances. With the advent of the internet (which has helped to facilitate the matching of employers and job seekers at a lower cost), there has been a current addition to the formal search method. Channels used by job seekers however differs depending on whether one is employed or unemployed as the appropriate method utilized by job seekers takes into consideration the one that has a higher probability of generating offers. Bradshaw (1973) showed that job seeking methods differ with regard to costs and benefits in the generation of offers. Individuals will therefore employ particular methods in the search process if it helps to establish a good match between them and employers.

Making predictions from a model employed in his study of search choices and outcomes by employed and unemployed jobseekers, Holzer (1987) theorized that the two groups differ as the job offer and wage distributions they face differs. To Holzer, information given by personal contacts may be more accessible to employed contacts as they are more likely to have friends and

acquaintances who are also employed. Based on the model, employed searchers have a lower probability of receiving offers, a lower probability of accepting offers and higher wages when offers are accepted than unemployed job seekers. This is due to the higher cost of search for the unemployed which cause them to put more effort into searching and be willing to accept job offers. Search choices used by both unemployed and employed workers therefore have important effects on the generation and acceptance of offers.

Even though an individual may secure employment based on his human capital endowments, possession of a network of friends and relatives can facilitate one's entry into the labour market. Reliable information about availability of jobs, wages of job offers and other conditions of work can be made known to a worker making an initial entry into the labour market or changing employers.

One aspect of the informal method in the search process is the concept of social networks. Enquiring about jobs from friends, relatives (strong ties) and acquaintances (weak ties) regarding job opportunities is very common and depending on one's network base (both weak and strong ties), a successful job match can be made. Strong ties are more likely to be in the same group compared to weak ties who mostly come with a different network base and perhaps a larger base (Granovetter, 1973). According to Granovetter, one would be disadvantaged if one has less weak ties. Quality of a worker's social network however depends on his educational attainment, ethnic group, or whether he has an employed contact is in a lower echelon on the job ladder or in a high employment status.

Another study that sought to concentrate on the role of social networks in matching job seekers with vacancies through information sharing was undertaken by Calvó-Armengol (2006). His study was premised on the assumption that a job seeker may obtain information about job opportunities from his own search efforts or through their social ties (employed contacts). The structure of friendship ties among one's friends, and friends of friends and so on affect the intensity and geometry of information flows. As such in cases where some members of a network group are unemployed, they may transit to employment status faster when their employed contacts transmit information to them.

A worker's probability of being employed when most of his closely associated ties is also employed is high compared to a situation when they are not. Indirect connections can result in an increase in employment status of unemployed members if the prospects of the other indirect contacts are good. Using a geometric configuration model for the network of social contacts, Calvó-Armengol (2006) theorize that the average unemployment of a group decreases when the social ties get wider and the sources of information are more diversified. Thus, the differences in labour market outcomes beyond labour market regulation, skill composition mix in the economy, capital and technological endowment, earnings can also be accounted for by social networks and structural differences in socialization patterns. This study therefore provides another dimension for unemployment duration dependence incorporating one's social networks which earlier studies ignored in their predictions. His study linked social capital to similar investment decisions in human capital as economic agents also invest in social capital in pursuance of their self-interest.

The economic analysis of the labour market cannot therefore ignore the social embeddedness of various economic actors as social contacts can have a greater impact on labour market outcomes such as wages, drop-out rates and inequality without sacrificing explanatory power (Calvo-Armengol, 2006). This analysis seem simplistic considering the simple geometric mapping analysis used and the number of agents considered as well as the hypothetical figures used in estimating the reduction in a group's unemployment rate. However, conclusions drawn cannot be ignored entirely as individual heterogeneity alone cannot explain the differences in labour market outcomes of workers even if they are connected through the same network. The labour market in Ghana where there exist strong extended family linkages and friendship ties established through religious associations and ethnic groups even in tertiary institutions could account to some extent for differences in labour market outcomes.

Both workers and firms choose between formal and informal hiring channels. A framework for exploring the equilibrium relationship among social structure, wages and profits has been developed by Montgomery (1992). Montgomery hypothesizes that workers who are well connected (possessing social ties with those in high-paying jobs) might fare better than those who are poorly connected and firms hiring through referrals might earn higher profits. He further postulated that changes in social structure parameters will alter the distribution of income, an increase in network density and inbreeding bias which will generate wage dispersion. Higher profits earned by employers who hire through referrals could be explained by the notion that employed contacts may refer job seekers who are best-suited for a particular job since their reputation is at stake (Rees, 1996).

When social ties of workers are also employed by the same firm, they can offer them social support, monitor and ease their assimilation into the workplace by providing them some form of informal training (Fernandez et al., 2000). But this may not always be the case as there is the likelihood of employed contacts referring workers who might not have productivity traits similar to them. An empirical study by Fafchapms and Moradi (2013) which utilized data compiled from army archives of the British colonial Army in Ghana. The study found that recruits who were referred were more likely to be dismissed as unfit, inefficient or for misconduct than non-referred recruits.

2.2.1 Informal contacts and wages

The first study to incorporate informal networks in a search model was one undertaken by Mortensen and Vishwanath (1992). Their model posits that for those transiting from unemployment to employment, the distribution of wages received by job seekers who obtained information through contacts is greater than that of those who applied directly to their employer. For the employed worker moving from one job to another, those who find jobs through contacts obtain a higher wage than their counterparts who do not. They further indicate that since the wages earned by those hired through contacts are higher, they are less likely to quit implying a longer tenure with the matched employer. As such, in a labour market where employers post wages once and for all, and equally productive workers search for wage offers, workers who have a higher probability of obtaining information through employed contacts earn more in equilibrium.

In contrasting Mortensen and Vishwanath (1992) and Granovetter's hypothesis that workers who used social networks in acquiring jobs are better-paid than others who do not, Franzen and

Hangartner (2006) predicted using a model (which combined the classical job-search theory and the network hypothesis) that networks are more essential with respect to non-pecuniary outcomes but not the monetary aspects of a job. They hypothesized that using social networks impacts on non-monetary aspects of a job with a labour market outcome they coined as "job adequacy[5]" as informal contacts are well informed about the worker's interest and qualifications and can help to select jobs that best suits them.

Correlation between workers using social networks (informal contacts) and wages received is however mixed. Depending on the efficacy of formal search methods, the use of personal contacts can either lead to a wage premium or a wage disadvantage (Pellizzari, 2010). Pellizzari's model reconciled earlier studies that jobs found through personal contacts are associated with higher wages and lower quits with later studies which documented opposite results. The model posits that jobs found through personal contacts may pay higher or lower wages than similar observed jobs based on the assumption that workers either fit or unfit a particular job offer. In his theory, there are three periods, first period: workers and firms search for each other using both formal and informal methods. In the second period, production takes place and the type of match is revealed. Finally, production continues only for those matches that have not been previously destroyed, thus the firms and workers who fail to form a match in the first period continues to search. Firms become more selective with candidates met through informal networks, increasing their average productivity and average wage of jobs created through such channels as the formal labour market becomes more efficient, making it easier to fill vacancies. Since bad matches can be destroyed in

[5] Job adequacy in entails how well a worker's educational and human capital endowments fit a particular job.

the third period, the model predicts that over time (tenure), bad matches are destroyed and only good matches survive; thus, initial wage premiums will disappear with tenure.

If the formal search methods are inefficient, then jobs filled through informal contacts may not increase productivity and average wages. This seem to be more plausible as firms usually use both formal and informal methods simultaneously in hiring labour to maximize profits but it is possible that even when the formal methods is more efficient, job seekers who are hired through such channels may not be as productive as the theory predicts in situations where the employed contact has much say in the hiring process and may refer an unproductive relative or friend.

2.2.2 Informal Contacts and Job Tenure

Post the hiring stage, workers who are matched to an employer through an informal channel may found out whether the matched job is a good one or otherwise. If the offer turns out to be a good one (with higher wages and better conditions of service and has career advancement prospects), the worker may decide to stay. In the case where the job match does not result in a higher return for the worker, he may shorten his tenure with that employer. In a model that examines differences in the subsequent quit behaviour of individuals who had informal contacts at the place of employment prior to being hired and those who did not, Datcher (1983), deduces that informal contacts can lower quits by exercising clout (having a say in the hiring process) and by providing information so as to ensure that a better match is made between the employer and the job seeker. However her model was based on the assumption that information obtained from relatives and acquaintances can substitute for information that would have otherwise being obtained through actual experience. Its predictions are real as the clout exercised by an employed contact can

enhance the labour market outcome of a job seeker especially in situations where the formal channels are not efficient and "whom you know[6]" prevails.

Extending Jovanovic's (1984) job matching model, Simon and Warner (1992), showed that old boys' network (informal contacts), reduces employers' uncertainty about workers' productivity. According to this extended hypothesis, employers can screen out low-valued job matches by soliciting the subjective views of people who know the job seeker (employed contacts whose productivities are known by the employer). Employers however observes the true productivity of the worker after he is hired. The expected value of accepting an offer incorporates both the value of the option of a job seeker now employed staying with the firm beyond the first period and the option of quitting to search gain.

For the unemployed worker, the expected value of rejecting an offer is simply the expected value of seeking for one more offer. The theory predicts that workers have higher reservation wages for offers received through the old boys' network than for offers received outside this network but the referred workers' productivity being certain initially will result in lower average growth of wages. The theory also extend the analysis to tenure positing that referees help to reduce uncertainty about worker's productivity, generating a good match thus, referred workers should have a longer tenure than non-referred workers.

[6] Whom you know denotes informal contacts ability to influence employment outcomes often used to indicate that those who are not able to secure a successful job match may not be able to do so because they did not know anyone who could help facilitate such a match.

Employed contacts of a job seeker include both high-wage contacts and low-wage ones. Incorporating both "good matches" and "limited matches" hypotheses, Loury (2006) deduced that job mobility decisions depends on one's reservation wages and external offers received from firms seeking employees. The model interprets longer tenure for those who found jobs through friends and family depends on whether job seekers used high- or low-wage offer contacts. Workers who find jobs through high-wage contacts are likely to get better external wage offers, may earn more, have higher reservation wages, will be more satisfied with their jobs and have longer tenure or less likely to quit (good matches hypothesis). However, workers using low-wage contacts demonstrate the limited choices hypothesis. Such job seekers receive low wages from employers mainly when the likelihood of high-wage offers is small and a continued usage of such contacts signal a limited range of alternatives. They may in turn earn less; change jobs less often (longer tenure) but may be less satisfied with their jobs. Her theory therefore showed that even within the informal channel there exist differences as a worker's informal contact may be in a higher category or at a lower echelon of the job ladder.

2.3 Empirical Literature

Relationship between the use of friends and relatives in the job finding process and post-hire outcomes have been empirically tested in many studies. A considerable number of the studies concludes that workers who obtained jobs through informal channels earn significantly higher wages compared to those who do not. Other studies, on the other hand, found no wage premium attached to individuals who used informal networks in acquiring jobs. In some cases such individuals suffer a wage penalty. With regard to the relationship between informal contacts usage and job tenure, few studies exist. The rest of the section reviews empirical studies on social

networks (informal contacts) and labour market outcomes with a brief introduction on the efficacy of this search method in the labour market.

Informal search methods seem to be very potent in increasing the probability of job offers received and accepted. According to Corcoran et al (1980), about half of all workers heard about their current job through a friend or relative and about the same proportion knew an employed contact who worked for their current employer before they began work. Their study used data from the 11th Wave of the Panel of Income Dynamics a longitudinal study of American families.

Using data from the National Longitudinal Survey of Youth (NLSY), Holzer (1988) found that job seekers who resort to friends and relatives in the job search process generate a job offer with relatively high probability. Other studies have also corroborated the relative importance of informal search methods. The use of informal search methods could also impact one's exit rate from unemployment. This is confirmed in a study by Pistaferri (1999) which used the Survey of Household Income and Wealth (SHIW). The study found that workers who obtained their jobs through referrals by relatives and friends have shorter unemployment duration than those who obtained their jobs through formal search strategies.

Similarly, Loury (2006) using a survey similar to Holzer's found that more of the respondents had their jobs through friends and family and about a third of the friends and relatives that aided workers to find jobs either knew the boss or gave the worker a recommendation. Analyzing the European Community Panel, Pellizzari (2010) saw that informal contacts together with direct application and answering advertisement are among the most important channels that results in job

offers being accepted but the use of personal contacts appear to be more relevant in small firms. The informal medium (using friends or relatives) was also seen as the search channel with the highest success in terms of generation of offers in a recent study conducted by Nyarko et al. (2014) with a sample of formal sector workers in Accra.

2.3.1 Informal Methods of search and Wages

The job search method used has implication on the initial wages received by workers when a match is made between a job seeker and an employer. Empirical literature abounds on the relationships that exist between the use of informal search channels and wages in the labour market post the search period. One notable study is that conducted by Granovetter (1973) which supported the hypothesis that those who used social networks in finding jobs are better paid. However, this study is criticized on the basis of individuals considered in this study which comprised mainly of professional, managerial and technical workers (high-skilled workers).

Informal search method is generally seen to result in a higher wages for workers because the channel better transmit valuable information to jobseekers, thus leading to a better match between employers and job seekers. Simon and Warner (1992) using data from the 1972 Survey of Natural and Social Scientists and Engineers, found that referred workers earned significantly higher than non-referred workers and the regression results of salary growth indicate that wage growth is lower for the former than the latter. Other studies also support this wage premium received by workers who used informal search methods in securing their jobs (Corcoran et. al, 1980, Fernandez et al., 2000, Marmaros and Sacerdocte, 2002).

Similar findings were observed by Yogo (2011) when a Cameroonian Survey on Employment and Informal Sector (ESSI) was analyzed. by The study which used an extended Mincerian earning's equation and accounting for endogeneity found that workers who make use of social networks earn a wage premium of 1.53 percent and this results hold after controlling for the structure of the labour market and heterogeneity of social networks. Using the same dataset, Yogo found that the effect social network on job quality (captured by whether or not the accepted job had social protection and job security) was negative. This latter finding used Ordered Logit and 2SLS to correct for endogeneity. Yogo attributed the negative effect to the scarcity of formal sector jobs within the Cameroonian labour market which pushes workers to accept any job irrespective of the quality than to stay unemployed.

When workers acquire jobs through their social networks, it does not always results in wage premiums. While some studies showed inconclusive results, others saw that the use of such channels may result in a wage penalty rather than a premium. Franzen and Hangartner (2006) using the 2001 International Social Survey Programme on Social relations and Support System found that the reliance on a worker's social ties is a common job-search strategy in all countries considered in their study but did not provide a monetary advantage. They used a standard mincer income OLS regression model controlling for country specific differences by country dummies and concentrating on OECD members and found that there is no wage advantage in the use of informal search channels. In the same study, a further analysis of a survey comprising 8,000 Swiss University Graduates who are new in the labour market (new labour market entrants) showed that informal job-search methods are more important in relation to non-monetary job characteristics. Their conclusion from the latter data was that graduates who found jobs via such channels tend to

get jobs that are well-suited to their educational qualification and offer better career prospects but does not result in a wage premium.

The nature of the relationship that exist between the job seeker and the employed/informal contact as well as the skill requirements of the job is also crucial in determining whether one will obtain a wage advantage or not. Using a data on a large Private Egyptian manufacturing firm, Antoninis (2006) concludes that workers who got their jobs with the help of an individual with whom they were acquainted with through past work relationship earn a significantly higher wage (in both low- and high skill jobs) and a recommendation coming from a friend or relative has no effect or in the case of an unskilled job, attracted a wage penalty. Findings from this study also shows that the provider of the information is as relevant as the job itself.

In a related study, Naidoo (2014) using data from South Africa investigated the effects of job search methods on wages of Africans, coloured and white youths. Results obtained indicate that the use of relatives in job search resulted in wage penalties for Africans, among whom unemployment is higher. They argued that the value of information provided by referrals of such nature (relatives very close to jobseekers) may be discounted by firms accounting for the wage penalty.

In extending his study to cover social networks, Pellizzari (2010), adopting an OLS regression where personal contact was an explanatory variable with a dummy equal to 1 if an individual used personal contact to get the job he is holding at a particular time period and zero if otherwise, showed that across countries, wage premiums and wage penalties to finding a job via personal

contacts are equally frequent and of about the same size. The estimates were obtained after controlling for workers' observable and unobservable heterogeneity to account for the endogeneity of both wage and quality of informal networks. However, the wage differentials disappear with tenure (similar to results obtained by Simon and Warner, 1992) which the study argued was caused by mismatching rather than unobservable job characteristics. In making further analysis to find out what might account for some countries advancing a wage premium whereas others generated a wage penalty, the relevance of the presence of professional recruiters were seen to correspond directly to a wage premium for job seekers who find their jobs through personal contacts.

Differences exist in the size and quality of social network workers possess and this has impact on outcomes after a job match is made. A job seeker who obtains information from high-wage contacts are more likely to earn relatively higher wages themselves and lower wages if their contact or tie are low-wage earners. In disaggregating informal sources into low-wage and high-wage contacts, Loury (2006), using the 1979 NLSY found that young men who had help in getting their jobs from female contacts (low-wage contacts) earned less than those who directly applied to the employer or used formal means in obtaining their jobs. On the contrary, her study found that young men who found their jobs through prior generation male relatives (high-wage contacts) who knew the boss or served as a referee earned substantially more than those who directly applied to the employer or used formal methods.

Even though "whom you know" is an important phenomenon in securing a job, its causal effect on labour market outcomes such as wages have been criticized. Reporting from results obtained in an empirical study, Mouw (2003) indicated that much of the effects of social capital on labour

market outcomes reflect the tendency for similar people to become friends rather than friend's characteristics on labour market outcomes. Nonetheless the impact of social capital on outcomes in the labour market cannot be overemphasized. Workers make use of both formal and informal methods in searching for a job and their best offer accepted could be enhanced by the use of social networks in the job searching process.

The foregoing review shows that informal networks (contacts) have a critical role to play in workers securing a job offer as well in determining whether a worker will earn a wage premium or suffer a penalty. The final subsection below will examine the empirical literature on the main objective of this study which is the impact of informal contacts usage as against other methods and impact on job tenure.

2.3.2 Informal Contacts and Job tenure

There exist limited studies on the use of informal networks and how it affects a worker's tenure with an employer. Generally a firm paying low wages will have high turnover and will be waiting long before it can fill its vacancies whereas another firm paying a relatively high wage will be attracting workers both from unemployment and from other firms (Pissarides, 2000). Informal networks of workers can match them either to a high-paying job or a low paying job with the latter resulting in a shorter tenure with the employer and longer job tenure in the case of the former. With these contacts knowing the productive capabilities of job seekers, they can link them to job that suit their interest and human capital endowments culminating in a better match to an employer.

Examining the impact of informal networks on quit behavior, Datcher (1983) uses data from University of Michigan Panel Study of Income Dynamics to indicate that job seekers who had informal contacts on the their job before being hired are less likely to quit in the future (have longer tenure) with the source of the impact stemming from information gathered via such channels rather than post-hire clout (whether the employed contacts had say at the workplace). The results of the study were obtained using a probit model with the main explanatory variable being whether or not workers had informal contacts on their jobs before being hired. Controls were made for years of schooling, experience, experience squared, age and age squared. The study further investigated the impact of informal contacts on quit behavior of whites and blacks with less or more education. On the whole, quit rates for those with less education who knew someone are higher than for those who knew no one whereas quit rates for whites who knew someone were about four times higher than for blacks who knew no one.

On the other hand, the study found that quit rates of individuals who had college education and knew someone was lower than those who had some college education and knew no one implying that blacks and college graduates are the main beneficiaries of information obtained from informal contacts. The study fail to account for relatives and friends who might not be employed at the workplace where the job seeker is seeking employment who might have some say in them securing the job and their impact on certain non-wage characteristics post the hiring stage.

In testing the extended job matching theory, Simon and Warner (1992) using the 1972 Survey of Natural and Social Scientists and Engineers (SNSSE) found that job seekers who received offers using an advertisement and a private agency (formal search channels) had less durable (shorter

tenure) jobs compared to those who were classified as referred workers (prior job seekers who had insider information or were recruited through faculty members or informal networks) had more durable (longer tenure) jobs. These conclusions was based on the analysis of the survey which asked detailed questions about worker's current and previous two (2) jobs and used a Weibull duration model to analyze the data obtained and controlled for experience and education. The relevant independent variable used to make conclusions was the use of informal contacts versus it's non-usage in the job-finding process.

Studies considered so far relates to only natives within a given country with none looking at the impact of social networks on job tenure of immigrants. In filling this gap, Aguilera (2003) utilizes the 1992 Legalized Population Survey which has data on Mexican workers in the US who used social networks in their job search process. Results from this dataset shows that immigrants who acquired jobs through their social networks had longer job tenure with others who possessed higher levels of human capital more likely to quit a given job. This study used a linear regression with job tenure as the dependent variable and controlled for employment characteristics (receipt of benefits, union membership and company size), human capital characteristics including formal job training, education and socio economic characteristics comprising mainly age, sex and marital status. The study however in considering the impact of social networks used a dummy variable to indicate whether or not workers utilized friends and relatives during the job search process instead of which search method paramount in aiding workers to secure their given jobs.

Workers or individuals who are matched to lower wage offers may also stay with their current employer due to lack of alternative better offers. As such longer job tenure may not always be

associated with a better match between a worker and an employer. This assertion was supported by an empirical study by Loury (2006). Using the 1979 NLSY, Loury found young male workers[7] who were hired through the help of informal contacts remained at their job longer (long job tenure) compared to their cohorts who obtained jobs through direct contact with employers or other formal channels. However, the study concludes that such a relationship could be the combination of higher wages and longer tenure as well as lower wages together with longer tenure.

From the above study, young men who resort to older male relatives and friends (high wage contacts) do get jobs with higher wages accounting for the better matches hypothesis whereas the use of female contacts (low-wage contacts) account for the combined effects of lower wages and longer tenure (limited choice hypothesis). These hypotheses enriches the literature on the use of informal contacts emphasizing that longer tenure on a job is not always due to higher wages but may be the case of limited choices available to the job holder. This could be observed in developing countries where the formal sector is not able to generate enough jobs thus the tendency for job holders to stick to particular employers even when their wages are comparatively low. Findings from this study were made by the employment of Cox proportional hazard method. The explanatory variable in the analysis was the usage and non-usage of social networks by young males in getting a job with controls for education, work experience, workplace effect (union membership) and marital status.

Employing a firm specific dataset containing personal records of entry level workers in a private organization, Kmec (2007) sought to find out if the use of social networks in the job-finding

[7] Loury (2006) restricted the study to cover only young men as the tenure of female workers was observed to be complicated.

process affect job turnover. Adopting a Cox Proportional Hazard Model, with a variable accounting for the use of informal contacts being whether or not workers in securing their entry level job used social networks. The study found that referrals from currently employed contacts reduced turnover after controlling for sex, age and age squared, similar to the other studies reviewed.

2.4 Summary

The above review shows the relative importance of informal contacts in the labour market. The social network a worker belongs to can facilitate a match with an employer. Most studies observed that workers generally resort to informal contact in generating offers. It has emerged from the studies examined that using informal contacts in searching for a job in some cases facilitates one's exit from unemployment and result in a better match between a job seeker and an employer. Empirical literature reviewed however shows mix results in terms of the exact relationship that exist between the wages of workers and whether or not they used informal networks to generate a job offer. Whereas some of the studies saw that such a match generates a wage premium or penalty others shows no significant relationship.

Studies of the impact of search methods usage on job tenure in the literature are limited. Effect of informal networks on how long a worker stays with a particular employer from the few studies reviewed shows that workers who got their current jobs through such means have longer tenure. The fact that none of the studies reviewed focused on developing countries makes this study which seeks to investigate the impact of informal contacts as against formal means in the job search and finding process on job tenure a worthwhile one.

Chapter Three

Job Tenure and Job Search Behavior in Ghana

3.0 Introduction

Chapter opens with a brief overview of the Ghanaian economy with the labour market given more prominence. It will highlight certain key aspects of the labour market notably wages, unemployment and working conditions. Job tenure in Ghana is discussed in the next section. The section that follows considers the job search behavior of workers in Ghana. The final section summarizes the entire chapter.

3.1 A Brief Overview of the Ghanaian Labour Market

The Ghanaian labour market is characterized by high level of informality as 88% of employment is in the informal sector with agriculture gradually losing its dominance to service in total employment. Unemployment rate based on the conceptual definition of job seeking out of joblessness remain relatively low at 5.2% in 2013 (GSS, 2014). Even though unemployment in the global economy seem to be very high resulting in upheavals in Northern Africa, the definition of unemployment makes it a less serious challenge for most developing countries such as Ghana (Baah-Boateng, 2013).

Unemployment is however a youthful phenomenon with youth unemployment rates higher than the overall rates. Higher youth unemployment rates in Ghana is attributable to school-to-work transition failure, a mismatch between supply and required labour by firms, inadequate macroeconomic policies to promote entrepreneurship and credit and other constraints that inhibit the setting up of new businesses by young entrepreneurs (ISSER, 2010).

Another trend of unemployment is a situation where individuals who are more educated become unemployed mainly due to the formal sector's inability to create enough jobs. Analysis of the sixth round of the GLSS VI shows that apart from post graduates (2.7%), unemployment rates for those with no education (3.5%) are comparatively low in relation to individuals with secondary (11.7%) and university degree (5.9%). This worrying trend will be compounded as more graduates come out of the various tertiary institutions every year making the job search and finding process very competitive.

Within the Ghanaian labour market, most workers are engaged in economic activities that are not sustainable or working in precarious circumstances (vulnerable employment). Over two-thirds of employed persons in Ghana are engaged in vulnerable employment mainly as own account workers and contributing family workers (GSS, 2014). Due to the precarious nature of most jobs, a higher proportion of the workforce in Ghana cannot withstand any shock and are denied any form of social security and job enhancement benefits. The subsections below present analysis of other key aspects of the Ghanaian labour market.

3.1.1 Remuneration and Working Conditions

Majority of the workforce who are mostly in the informal sector earn far below the national daily minimum wage (NDMW). Males earn relatively more than females as females are mostly engaged in the lower echelon of the job ladder (Baah-Boateng, 2009). With regard to working conditions, few of the employed workers are in jobs that provide them with some form of social security, fringe benefits or retirement scheme. Employer-provided training is basically non-existent as

slightly less than a third of the employed workforce had access to such training in 2006 (Otoo et al., 2009).

3.2 Job search behavior among Job seekers in Ghana.

Most job seekers (43.3%) use their friends and relatives in searching for jobs (GSS, 2014). Estimates from GLSS 6 indicate that more males apply directly to employers (34.2%) whereas only 18.8% of females search for job through this medium. However, more of the job seekers resort to the internet (0.7%) than newspaper advertisements (0.2%) in obtaining information about job availability.

3.3 Job Tenure in Ghana

Due to the unavailability of labour surveys in Ghana, there exist no data on job tenure in Ghana. However the labour survey of the GLSS includes a question on how long a worker has stayed with an employer. Respondents to this survey were asked how long they have been doing a particular job all their life. Even though this variable relates more to occupational tenure than to firm tenure; limiting the analysis to only paid workers and eliminating self-employed individuals can closely approximates job tenure.

Table 3.1 presents average tenure of workers across various occupations in Ghana. Among the major occupations, workers engaged as managers have been doing the same job over the longest period (on average about 11 years) with those employed as sales and other service personnel having a lower average tenure of almost six years. Female managers (8 years) have a significant shorter tenure compared to male managers (12 years). Technicians and associated professionals

also have a longer tenure with the difference in the mean job tenure between male and female technicians being insignificant. This relatively long tenure may be due to the specificity of skills of these workers which makes it cumbersome for them to change jobs. With the exception of professionals and technicians, males have longer tenure than females in all other occupations.

The average tenure for all paid employees as at 2012/2013 in Ghana is eight years with average male tenure (almost 9years) being marginally different from their female cohorts (about 7years). Lower average job tenure of females could be due to their detachment from the labour market to attend to family needs and the low-skilled jobs they mainly engage in. It can also be ascertained from Table 3.1 that highly skilled females have longer tenure compared to females who are in low-skilled jobs. Thus as females acquire more skills through education and training, the longer they tend to engage in the same job.

Table 3.1 Mean tenure of employees by Occupation and Gender

Occupation	Male	Female	Total
Managers	11.57	7.57	10.65
Professionals	9.57	10.14	9.79
Technicians and associate professionals	10.05	10.34	10.13
Clerical support activities	8.73	7.22	8.06
Service and sales workers	6.86	4.23	5.57
Skilled agricultural, forestry and fishery workers	10.43	5.27	9.77
Craft and related trades workers	8.34	5.93	7.91
Plant and machine operators and assemblers	9.21	6.19	9.12
Elementary occupations	6.60	4.53	5.89
Total	8.72	6.85	8.14

Number of observations: 5,217

Note: Those engaged in armed forces occupations are omitted from the table. Computations are only made for paid employees who are 15 years and older

Source: Computed by Author using GLSS VI

How long a worker has been doing the same job also depends on the highest educational qualification attained. This could result from the varying age distributions in the attainment of various educational qualifications as older workers are more likely to have lower levels of education compared to younger workers.

Table 3.2 presents average tenure of workers taking cognizance of the highest educational qualification. Workers with senior secondary education (SSS/SHS) are mainly in the younger age

group have shorter tenure compare to those with middle school most of whom are relatively older and others who have completed Basic Education (JSS/JHS)) as the latter group may have to remain in the same job due to the low-skills they possess. Male workers have longer tenure than females in all educational categories with the exception of middle school and Teacher training /Nursing. The tenure of workers with Postgraduate degrees is not significantly different from those with a Bachelor's degree.

Table 3.2 Average tenure by Highest Educational Qualification attained

Highest qualification attained	Male	Female	Total
JSS/JHS	5.79	2.93	5.09
Middle School	12.43	13.09	12.58
SSS/SHS	4.57	2.79	3.95
Secondary	13.38	10.22	12.76
Vocational/Technical/Commercial	9.17	7.36	8.55
Teacher training/Nursing	11.85	12.35	12.09
Post-secondary diploma	9.19	8.72	9.02
Bachelor degree	10.30	9.18	10
Postgraduate (Cert., Diploma, Masters,	10.48	10.22	10.44

Number of observations: 4,828

Average tenure for workers with less than a Basic Level of Education (JSS/JHS, Middle School) are omitted from the analysis

Source: Computed by Author from GLSS VI dataset.

Differences in tenure across industries also exist in the Ghanaian labour market with workers engaged in public administration being comparatively older than those engaged in other industries. Table 3.3 below presents the number of years workers have been doing a given job across some industries.

Table 3.3 Average tenure by Industry

Industry	Male	Female	Total
Agriculture, forestry and fishing	10.07	6.39	9.46
Mining and quarrying	6.28	4.76	6.05
Manufacturing	7.60	5.22	6.77
Construction	8.52	3.53	8.43
Wholesale and retail; repair of motor vehicles and cycles	6.76	3.63	5.43
Information and communication	5.59	4.52	5.35
Financial and insurance activities	6.32	4.78	5.71
Professional, scientific and technical activities	9.98	6.83	9.27
Administrative and support service activities	7.30	7.06	7.22
Public administration and Defence	12.89	9.44	12.05
Education	10.10	9.41	9.82

Number of observations: 5,216

Certain industries were omitted from the computations

Source: Computed by Author from GLSS VI.

Workers employed in public administration and defence have long lasting jobs with male tenure (13 years) being longer than female tenure (almost 10 years). The average tenure of those engaged in the agricultural sector is relatively long mainly as a result of the concentration of older workers in this sector.

Average tenure of workers employed in the services and industrial sectors (including the manufacturing subsector) are relatively shorter compared to their cohorts working in the agriculture and its related activities. In all industries represented in the Table 3.3, male tenure is relatively longer than that of females.

Job tenure of individuals engaged in administrative and support services are longer than the tenure of individuals engaged in the information and communication (similar to the financial and insurance sector) industry which has the shortest tenure of workers in the industries represented above. The shorter tenure of these two industries (about 6 years on average) could be due to the good performance of these sectors over the past decade which makes mobility to be high among workers engaged in them.

Workers engaged in the educational sector have relatively longer tenure (about 10 years) as compared to those engaged in mining and quarrying activities (6years). The shorter tenure associated with the latter sector results from the short lifespan of activities and projects engaged in by mining companies and its' allied institutions.

3.4 Summary

This chapter presented an overview of the Ghanaian labour market, job search behavior among job seekers and job tenure in Ghana. Few workers in Ghana are employed in the formal sector with majority of individuals engaged in the informal sector where there exist no or inadequate social security and protection.

With regard to remuneration, women earn less than men. Significantly more workers in the Ghanaian labour market are in low quality jobs with no form of social security. The proportion of job seekers (46.9%) who resort to friends and relatives in seeking for information about jobs indicates the relative of this search method in Ghana.

Due to the absence of data from labour surveys in Ghana, how long a worker has been doing a particular job (occupational tenure) was used as a proxy for job tenure. Data analyzed indicate that male workers have longer tenure compared to females. In terms of industry, workers engaged in the agricultural and public administration have relatively longer tenure relative to those engaged in the services related industries.

Chapter Four

Methodology and Empirical Findings

4.0 Introduction

A presentation of the extended job matching model adopted, empirical method used and findings made are what this chapter sets to achieve The first section provides a theory of job matching incorporating the role of informal contacts in the matching process. The next section contains the empirical model as well as the estimation procedure and the model adopted for this study. Section 4.6 will provide reasons for the inclusion of certain explanatory variables and their expected signs of their coefficients. Section 4.7 looks at the source of data used for this study together with the sampling technique adopted in the selection of workers sampled for this survey. The rest of the chapter is devoted to the findings made.

4.1 Theoretical Model

An individual searching for a job uses both formal and informal means in order to maximize utility. Firms on the other hand, create vacancies up to the point where the marginal cost of doing so equals its marginal benefits (Pissarides, 2000). According to Pissarides, job offers are received by searching workers and a worker or an unemployed worker will accept an offer if it is above his minimum acceptance level of wage. The ensuing process guarantee that a match is made between a worker and an employer if the job offer meets the minimum acceptance level of the worker and the gains from filling a vacancy are maximized by a firm.

A firm is set up to maximize profit as such the marginal productivity of an employed worker should be equal to the wage rate offered. Even though employers can screen attributes of prospective

workers using their educational qualifications, experience, physical attributes, there are other aspects such as their zeal, motivation, productive abilities which can be known by those within their social network (Saloner, 1985). It is thus cheap for an employer to solicit views of employed individuals and other referees who can recommend a particular worker (because they know the worker personally) compared to the reliance on formal means in which case the productive traits will not be known until the post-hiring stage.

Moreover, much of the uncertainty surrounding the prospective worker can be reduced if they are known by individuals who are linked to both the job seeking worker and the firm. Workers, on the other hand use informal means of searching for work because they are mostly less costly and can help to generate job offers quickly as those within their social network who are employed may see it as social obligation to provide information when vacancies are created and may guide them through the hiring process.

Following Simon and Warner (1992), the job matching process within the context of social network is such that a worker enters a particular job with productivity, Ω which is employer-specific. The true productivity of a worker cannot be observed initially hence comes with a noise ξ thus, the observed productivity is

$$\hat{\Omega} = \Omega + \xi \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where ξ is a noise variable and is independent of Ω.

Assuming firms operate within the perfect market; they will operate subject to zero profits and pay a wage level which equals the worker's marginal productivity. A typical worker faces the problem

of maximizing the expected value of a job offer. Optimal decisions of both an employed and unemployed worker are considered as follows:

After a worker is employed, post the hiring stage, he receives a job offer of value, Ω and must decide to either stay with that employer or quit. Unemployed workers may however have to draw new offers; with new values of Ω and ξ. If a worker's present value function for remaining with a particular employer is $J(\Omega)$ and Q is the expected present value of quitting then an employed worker will remain in a firm if the reservation wage (Ω^r) of job offer is less than the actual wage offered, Ω. $J(\Omega)$ can be expressed as

$$J(\Omega) = \begin{cases} \Omega + \beta J(\Omega) = {}^{\Omega}/_{1-\beta} & for\ \Omega \geq \Omega^r \\ \beta Q & for\ \Omega \leq \Omega^r \end{cases} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(2)$$

Where β is the discount factor. In the case of an unemployed worker, the value of an initial offer, Θ, (Z (Θ)) is given as

$$Z(\Theta) = max\{n + \beta E[J(\Omega)], \beta Q\} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(3)$$

Where $\beta E[J(\Omega)]$ is the expected present value function of future earnings, thus the expected value of a job offer in this case includes both the value of staying with the firm beyond the first period and the option of quitting with *n* being the value of an initial offer.

Individuals usually receive offers from two sources; either through informal sources (*IN* Type offers) or through formal channels (*F* Type offers). The uncertainties about the true productivity of a job seeker (Ω) are however reduced as such $\sigma^2(\xi_F) > \sigma^2(\xi_{IN})$. A worker may receive offers through both informal and formal sources with probabilities q and $1\text{-}q$ respectively. For an

unemployed worker if Θ_{IN} is an offer received through informal contacts and the value of such an offer is $Z(\Theta_{IN})$ whiles that received through formal sources is denoted as $Z(\Theta_F)$ then when such a worker rejects an offer, he can continue to search and draw a new offer in the next period.

The value of such a rejection, Q is represented as

$$Q = q\int Z(\Theta_{IN})dF[\Theta_{IN}|\mu,\sigma^2(\Theta_{IN})] + (1-q)\int Z(\Theta_F dF[\Theta_F|\mu,\sigma^2(\Theta_F)] \quad \text{.....(4)}$$

With $dF[\Theta_{IN}|\mu,\sigma^2(\Theta_{IN})]$ denoting the probability density function of offers received through a worker's informal contacts and $dF[\Theta_F|\mu,\sigma^2(\Theta_F)]$ being the density function of offers received through a formal source.

Within the model as formulated by Simon and Warner (1992), the probability that a worker will quit in the second period is given as

$$\int_{-\infty}^{\Omega^r} dF(\Omega \mid \Theta,\sigma_1^2) = \Psi\left(\frac{\boldsymbol{\Omega^r-\Theta}}{\boldsymbol{\sigma 1}}\right) \quad \text{.....(5)}$$

Where Ψ (.) represents the standard cumulative distribution function with σ_1, being the standard deviation of the noise term which is small when uncertainties are unraveled as in the case of offers received through non-formal channels. The likelihood of a worker quitting is shown to be an increasing function of σ^2.

Informal contacts are able to reduce the initial uncertainty about a worker's productivity making it possible for a given worker to be optimally placed when $\Theta=\Omega \geq \Theta^r = \Omega^r$. This will reduce the probability of a worker quitting in the second period as given in (5). Thus workers who obtained

their jobs through informal contacts should have longer tenure than workers who were matched to their employers mainly through formal means. In addition, employed contacts of job seekers can ensure that they are properly integrated, mentored and can offer them some form of informal training (Fernandez et al, 2000) thus reducing their quit rate as they may be more productive than others who do not have such advantage.

How long a worker stays with a given employer also depends on demographic characteristics and human capital endowments such as age, sex, education, experience as well as the nature of the firm an employee is engaged to perform a specific task in terms of its size, availability of union, industry and whether or not the firm is privately-owned or a public sector organization. In estimating the determinants of job tenure, Mumford and Smith (2003) saw significant effects of certain individual characteristics on job tenure but these variables loses significance after controls are made for workplace effects.

4.2 Empirical Model

This study considers how workers exit from a particular job given that they have survived up (stayed with an employer) to a certain time. To obtain information about how long a worker has stayed with a particular employer, information would be sought from respondents on the previous/current employers they have worked for or work for and the search method (formal or informal) which was most important in securing the jobs they are currently holding or held. Survival analysis will be used in this study as data on how workers exit from a particular job (quitting or laid-off) given that they survived (stayed on that job) up to certain time will be made available. Retrospective questioning will be resorted to in generating data on the current and

previous jobs as there is no data on labour market outcomes of workers surveyed over a specified period of time in Ghana. This model will be resorted to as it accurately predicts data involving completed spell[8] (job tenure duration known though workers have exited from a given job) and right censored job tenure duration (incomplete spell or job tenure of respondents who continue to be in their first jobs).

The survival analysis used in this study is based on Cameron and Trivedi (2005), Jenkins (2005), Bazen (2011) and Cleves et al. (2010). Given an individual worker, the probability of staying with a certain employer till a given time period t can be given as

$$F(t) = \Pr(T \leq t) = \int_0^t f(s)ds \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (6)$$

Where *f(s)* is the probability density of a worker staying on a job and leaving at time t.

Other workers may survive after the period t (continue to stay with their employers without severing their employment ties). This is captioned as the survival function, S(t) and defined as

$$S(t) = \Pr(T > t) = 1 - F(t) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (7)$$

Within the concept of survival analysis, a key concept of note is the hazard function which indicates the prospect of leaving a particular state given that one has stayed in that state up to a certain time period. In this study, the hazard function will denote the prospect of a worker leaving a particular job given that he has held that job up to a certain time, *t*.

If λ (t) is the hazard function, then it is expressed as

[8] Within the context of the empirical model used in this study, a job spell indicate how long workers have been with their employer other than how the number of years they have been doing a particular job/task.

$$\lambda(t) = \lim_{\Delta t \to 0} \frac{\Pr(t \leq T < t + \Delta t \mid T \geq t)}{\Delta t}$$

$$\lambda(t) = \frac{f(s)}{S(t)} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (8)$$

4.3 Estimation Procedure

Job tenure is the main duration to be measured in this study and will be estimated in terms of the number of years a worker has been with a particular employer within a certain period of time. This measurement of job tenure makes it a discrete variable as the exact time within the month of complete job duration is unknown (as compared to continuous data which is a continuum). As such the transition from one employer to another or to another state will be analyzed using a discrete time hazard function.

The survival function in the case of the discrete-time data is then given as

$$S^d(t) = \Pr(T \geq t)$$

$$S^d = \prod (1 - \frac{d_i}{m_j}) = \prod_{j=1}^{t} (1 - \lambda j) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (9)$$

From (9), *di* is the number of workers leaving an employer and *mj* denote the number of workers remaining with an employer for j years or longer and having an incomplete duration at time j.

The analysis has so far assumed that there are no individual differences but in reality, the possibility of a worker exiting from a job depends on workers' demographic factors and firm/workplace-specific characteristics. Thus there is the need to incorporate covariates which will

be denoted as X_i. A worker *i* can either exit from a job (fail) or continue to stay with an employer at time *ti*. The density function of a worker exiting at time *ti* from equation 8 can be expressed as

$$f_i(t) = \lambda_{it}(S_{it\_})$$

The likelihood function of a worker either exiting or surviving on a particular job according to Bazen (2011) is given as

$$\prod_{ci=1} f(t_i \mid X_i) \prod_{ci=0} S(t_i \mid X_i) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (10)$$

Where *ci* is the right censoring indicator which takes the value 1 for the observed worker who has a complete spell and 0 if otherwise (incomplete job tenure duration).

The likelihood function for the whole sample, *n* can then be expressed as

$$L = \prod_{i=1}^{n} f(t_i \mid X_i)^{ci}[S(t_i \mid X_i)]^{1-ci} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (11)$$

Substituting equation (11) into the likelihood function for the whole sample yields

$$L = \prod_{i=1}^{n}[\lambda(t_i \mid X_i)]^{ci}[S(t_i \mid X_i)]^{ci}[S(t_i \mid X_i)]^{1-ci}$$

$$= \prod_{i=1}^{n}[\lambda(t_i \mid X_i)]^{ci}[S(t_i \mid X_i)] \ldots\ldots\ldots\ldots\ldots\ldots\ldots (12)$$

If the survival time in discrete time periods *1,2,…, m* are independent of one another, then the likelihood function can be defined as

$$L = \prod_{i=1}^{n}\left\{[\frac{\lambda_{am}}{1-\lambda_{am}}]^{ci}[\prod_{j=1}^{m}(1-\lambda_{aji})]\right\} \ldots\ldots\ldots\ldots\ldots\ldots (13)$$

Where λ_{ai} is the possibility of a worker, *i*, exiting a job having stayed on that job up to time *m*.

Taking log of equation (13) and maximizing the likelihood function yields

$$\log L = \sum_{i=1}^{n}\left(\frac{\lambda_{ami}}{1-\lambda_{ami}}\right) + \sum_{i=1}^{n}\sum_{j=1}^{m} log(1-\lambda_{aj}) \ldots\ldots\ldots\ldots\ldots\ldots (14)$$

A dummy variable (δ_{im}) can be specified such that it equals 1 for the year in which a worker's tenure ends and 0 for all preceding year before the month the tenure ended and for workers who continue to stay with an employer (incomplete duration or right-censored observations), $\delta_{ij}=0$ for every year of an incomplete spell such that the log-likelihood takes a Logit form with a binary dependent variable.

The likelihood function can thus be expressed as

$$L = \sum_{i=1}^{n}\sum_{j=1}^{m}[\delta_{ij}(\lambda_{aji})] + (1-\delta_{ij})log(1-\lambda_{aji})] \ldots\ldots\ldots\ldots\ldots\ldots\ldots (15)$$

4.4 The Empirical Model

The empirical model to be used in this study will follow that adopted by Loury (2006) in the job search theoretic literature. The Cox proportional hazard model will be adopted thus the hazard specification is given as

$$\lambda_{it} = \lambda_0(t)\exp(X_i\beta) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (16)$$

Where $\lambda_0(t)$ is the baseline hazard and X_i are the time-invariant individual and firm characteristics with λ_{it} denoting the probability density of a worker leaving a job at time t given that the worker has been with an employer up till that time period.

Holford (1976) and Prentice and Gloecker (1978) showed that if the data are generated by the continuous time proportional hazard model as in (16) above then the discrete-time proportional hazard function can be expressed as

$$\lambda_{it} = 1 - \exp[-\exp(\varrho_t + \beta' X_{it})] \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (17)$$

Where ϱ_t is the natural log of the baseline hazard $\lambda_0(t)$ in (16)

According to Allison (1982), the coefficient vector β in (17) which is a Kx1 matrix of parameters is the same as β in the proportional hazard model specified in (16). The discrete hazard function can be solved to get a log-log function of the form

$$\log[(-\log(1 - \lambda_{it}) = \varrho_t + \beta' X_{it}$$

The coefficients (βs) in (16) represent the effects of the explanatory variables on the probability of exiting from a job (experiencing the hazard in this case leaving a job) at time *t*.

The Cox-proportional hazard model which is a non-parametric model is preferred over other functional forms (weibull, exponential) as it helps to avoid inconsistent estimation of coefficients when the baseline hazard is not correctly specified or unknown. Furthermore, it enables the parameters to be estimated and effects on outcomes (hazard or exit from a given job) to be easily ascertained (Meyer, 1990).

Within this study, the second term of the right hand side of Equations (16) and (17) will be specified as

$$\beta' X_{it} = \beta_1 Age + \beta_2 FEM + \beta_3 Mar + \beta_4 Satis + \beta_5 Trng + \beta_6 TrdU + \beta_7 EmpSec + \beta_8 INFC. \quad \ldots\ldots (18)$$

Where

Age	=	Age of the respondent
FEM	=	A dummy variable of whether a worker is male or female
Mar	=	A dummy variable measuring if a worker is married or not.
Satis	=	A measure of how satisfied a worker is on a given job
Trng	=	A dichotomous variable that indicates if training was provided
TrdU	=	Indicates trade union availability at the workplace
EmpSec	=	The Employment sector (private versus public) a worker has been engaged
INFC	=	Informal methods against formal means in the job finding process

4.6 Justification for the Inclusion of Explanatory Variables and Expected Results

4.6.1 Informal Contacts

This is the principal explanatory variable from which conclusions on the impact of informal contacts usage on job tenure will be made. The most important search method which resulted in an individual acquiring a given job will be dichotomized into formal and informal means. It takes the value 1 if informal method of search was instrumental in the respondent's acquisition of a given job and 0 for workers for whom formal method of search was paramount. The use of informal

contacts can ensure that a better match is generated between a worker and a firm resulting in longer tenure.

Furthermore, the study will investigate whether the type of contact (in this case informal contacts will be further divided into informal male and female contacts) matters. Studies reviewed showed that the use of informal contacts in the job search and finding process has a positive impact on a worker's tenure (Simon and Warner, 1992, Loury, 2006, and Aguilera, 2003). However as these studies focused on labour markets in developed countries, there is the possibility of informal contacts generating a match of job seekers to lower quality jobs (Yogo, 2011) and this may have a negative impact on how long workers stay with employers.

4.6.2 Other Covariates

Control variables in this study are grouped into two categories: individual (socio-economic and human capital) and firm level characteristics. These covariates are fixed since the survey conducted is retrospective in nature and would not be able to capture time-varying variables that do have an effect on job tenure.

4.6.2.1 Individual Characteristics

Individual characteristics considered are a worker's gender, age, marital status, and job satisfaction. Age measures how old a worker is and captured in years. Older workers are expected to have longer tenure as they are less likely to quit a job as the returns from severing their employment ties with employers are much lower. Young workers on the other hand, are more mobile and will have shorter tenure as they can maximize returns from quitting a job (Burgess, 1999).

A female dummy is included as an explanatory variable to capture the effect of female versus male workers on job tenure. It takes the value 1 if the worker is female and 0 if otherwise. Male workers are expected to have longer tenure compared to female workers since the latter group may quit jobs more frequently to attend to family and maternal needs. However, more male workers may be sought for by employers hence they will be less likely to stay with an employer for long thereby reducing their job tenure. The study however expects male workers to have longer job tenure.

Whether or not a given worker is married is captured using the marital status variable. It takes the value 1 if a worker is married and 0 if otherwise. Married workers will be more likely to have longer tenure as the cost of quitting may be high compared to non-married counterparts.

The subjective measure of a worker's satisfaction on a given job is captured by the satisfaction covariate. Even though measurement of job satisfaction is difficult its effects on job mobility and thus job tenure cannot be downplayed as it reflects non-monetary attributes of a job which is not captured by standard objective variables such as wages (Freeman, 1978). As this is a qualitative variable, a Likert scale will be assigned to the measurement of job satisfaction and will take on the values 0, 1 and 2 respectively if a worker responds that he was Not Satisfied, Satisfied or Very Satisfied working for a given employer. However in the final analysis of data obtained through this study, the Satisfied and Very Satisfied options will be collapsed into one value making the variable a binary one. The study expects that workers who are satisfied with a particular employer will be less likely to quit as against those not satisfied on a given job.

4.6.2.2 Firm Characteristics

The rest of the variables (Training, Employment Sector, and Trade Union Availability) controls for firm–level characteristics. Firms that are larger in size can offer more opportunities for career advancement, have greater opportunity to advance on the job ladder and such organizations may have proper industrial relations which may lead to lower quits (Rebitzer, 1986). This variable was however excluded as all sampled workers were engaged in relatively large firms.

Training is controlled for to capture the effects of employer-provided training on job tenure. When employers train workers, they expect to reap enough returns from them in order to defray the cost of the training. If employers provide specific training suited for the enhancement of their operations, skills gained cannot be used in other jobs hence reducing the probability of quits by workers (Becker, 1975). Employers will also be worse off if trained workers leave hence will motivate them adequately to stay. On the other hand, if workers are not trained at the workplace, employers may not lose much as they did not incur any investment in training them when they quit or leave the firm. This variable is measured as a dichotomous variable and takes a value 1 if employees received any form of training at their workplace and 0 if no such training was provided. The study expects workers who received some form of training to have longer tenure similar to Mumford and Smith (2004).

In organizations where trade unions exist, workers do have a voice in negotiations and in the settlement of disputes which may enhance a stable relationship between them. Unions provide some form of protection for workers by giving them a voice leading to fewer quits (the exit-voice tradeoff as theorized by Freeman, 1980). The trade union variable measures whether the firm or

employer a worker is engaged with had an association of workers at the workplace for which workers could be members of. It is expected that trade union availability will impact positively on the tenure of workers.

Employment sector in this study indicates the institutional sector a worker is engaged in. It is categorize into the informal, private formal and the public sector. Jobs in the public sector ideally are more stable than the ones in the other two sectors thus workers who generate a job matches in this sector are less likely to quit. A worker engaged in the informal sector is more likely to quit than one employed in the private formal and public sector. The value 0 is assigned to a respondent who has worked in the informal sector and 1 for those who worked/are working in the private formal sector with 2 given to those who are/were engaged in the public sector.

Over the past one-and-half decade some sectors of the Ghanaian economy have experienced massive growth whereas others have slacked in their performance. There has been a strong growth of the services sector which has largely emanated from the improved performance of trade, hospitality, telecommunications and financial subsectors with growth in the manufacturing and agriculture sectors being unimpressive (Alagidede et al., 2013). All sampled workers are engaged in the services sector, thus making it impossible to consider cross-sector effects on job tenure.

4.7 Data Source

Primary data is used in this study due to the unavailability of labour survey data that comprehensively considers the job search behavior of workers prior to being hired and job tenure in Ghana. The instrument used in the collection of the primary data is a self-administered

questionnaire. The questionnaire is structured in a way as to capture information pertaining to how employees obtained their previous and current jobs thus its' retrospective nature. Even though panel data is mostly resorted to in event to history analysis, the latter can also be applied to surveys that are retrospective in nature as it aids in capturing behavior and events over time (Jenkins, 2005).

The study considers formal sector workers employed within selected subsectors of the service sector. This sector is of much interest to the study as it has experience tremendous growth within the past decade and workers may make use of informal means of obtaining good jobs in it. Accra is also chosen as the study area for this study because it is the capital of Ghana and houses all the heads offices/headquarters of the various institutions considered in this study.

The study uses a two-stage sampling technique due to its flexibility and ability in addressing the difficulty in obtaining a complete list for the entire population (Statistics Canada, 2010). In the first stage, 30 firms were selected from the Banking, Telecommunications, Educational (Universities) and the Civil Service (Ministries) subsectors within the services sector. The selection seeks to ensure that workers sampled cover both the private and public sectors. Additionally, the various subsectors considered within this study will help to determine some of the determinants of job tenure broadly within the service sector and not in a specific subsector which was the focus of the study undertaken by Sarfo-Agyemang (2012). At the second-stage, ten (10) self-administered questionnaires are randomly distributed to workers within a specific firm. The targeted sample size in the study is three hundred (300[9]) employed workers.

[9] Even though a sample size of 384 is normally desired for precision (Cochran, 1977), the targeted size is deemed appropriate as this study considered formal sector workers engaged in only these subsectors and had started work from the year 2000 onwards.

4.7.1 Data Collection

Self-administered questionnaires were used to generate data for this study. It was designed with three sections. The first section, Section A is to solicit demographic information of respondents as well as look out for their current job search behavior. Section B considered the job search method which was most important in the acquisition of current and previous jobs if any and how long they (have) stayed with these employers and other relevant details of their engagement with the organizations concerned. The last section looks out for the characteristics of the firm/organization that sampled workers work/worked for. This section is to capture the effect of firm-level features on how long workers stay with employers (job tenure). Only two hundred and twenty (220) questionnaires were retrieved and after accounting for inconsistencies and missing values, two hundred and five (205) observations remained useful for analysis. One hundred and fifty-six observations could however be used in ascertaining the most important search method that aided in matching workers to their first employer as some of the respondents held more than two jobs.

The shortfall in the targeted sample size was mainly from the public sector where there were delays in the administration of questionnaires due mainly to the bureaucratic hierarchy in these institutions. Other reasons were the unwillingness of workers in sampled firms to respond to questionnaires and the refusal of some organizations to allow their employees to participate in the survey conducted for this study. Due to the aforementioned challenges, the survey lasted for more than eight (8) weeks.

The data obtained was subsequently entered, coded and cleaned to make it useful for quantitative analysis.

4.8 Findings and Discussion

Econometric analysis to determine the relationship that exist between informal contacts (social networks) in the job search process and job tenure is presented in this section. In addition, it also reports on the job search methods that are frequently used by employed workers. The section also reports on the search method that was most important in workers' transition to their first jobs.

4.8.1 Demographic Characteristics of Workers

Using a self-administered questionnaire, the study collected data from workers employed in various subsectors within the services sector. Information on the personal details of workers sought for included their gender, age, highest educational level attained, marital status, tribe, religious affiliation, and number of jobs held by respondents since they started work as well as the number of search methods they frequently used in making inquisition about new jobs. Two hundred and five (205) workers were used for this study and summary statistics are presented in Table 4.2. Table 4.1 which follows shows the description of the variables used in the descriptive statistics in Table 4.2.

Table 4.1 Description of Variables

Variables	Description
Gender	Dummy variable which takes the value 1 for a female worker and 0 for a male worker
Age	Age of the worker in years
Married	Dichotomous variable of the marital status of workers: 1 and 0 for married an unmarried workers respectively
Religion	Dummy variable of the Religious affiliation of surveyed workers: 1 for Christians and 0 otherwise
Educational level	
Diploma & Bachelors Degree	Dummy variable which equals 1 if the worker's highest educational attainment is at the tertiary level and 0 otherwise
Postgraduate	Dummy variable which equals 1 if the worker's highest educational attainment beyond the tertiary level (postgraduate) and 0 otherwise
Ethnic (Akan)	Binary variable of the ethnic group a worker belongs to : 1 for Akan and 0 for other tribes (Ga, Ewe, Dagomba and other tribes)
Program	Dummy variable if the worker pursued Business Administration at the highest educational level attained and 0 for others (Social and Physical sciences)
Monthly Income	A variable which takes the value 1 if a worker earns at least GH¢1500 and 0 if the worker earns less
Social network	A most important search method a worker used in obtaining current job: 1 for acquisition through informal contacts and 0 for formal means
Number of search methods used	The total number of search methods used by workers
Number of jobs held	Number of jobs held by workers since they started working
Current Job Tenure	Number of years workers have been with their current employer
Institutional Sector	A binary variable that takes the value 1 and 0 respectively for workers engaged in the private and public sectors

Table 4.2 Summary Statistics

Variables	Number of Observations	Mean	Standard Deviation	Minimum	Maximum
Sex	205	0.429	0.496	0	1
Age	205	32.46	6.11	23	56
Married	205	0.527	0.599	0	1
Religion	205	0.927	0.261	0	1
Educational level					
Diploma /Bachelors Degree	205	0.58	0.495	0	1
Postgraduate	205	0.39	0.489	0	1
Ethnic (Akan)	205	0.58	0.495	0	1
Program pursued at Highest level of education	205	0.473	0.501	0	1
Monthly Income (High)	205	0.863	0.742	0	1
Social network	205	0.459	0.499	0	1
Number of search methods used	205	2.176	1.196	1	6
Number of jobs held	205	1.937	1.02	1	5
Current Job Tenure	205	4.873	3.911	0.08	20.42
Institutional Sector (Private)	205	0.634	0.483	0	1

Source: Computed from Author's Survey

The descriptive statistics shows that the total number of workers sampled was two hundred and five (205). Women constituted about forty-three percent (43%) of the respondents with men accounting for fifty-seven percent (57%). The mean age of respondents was thirty-two (32) years with the youngest being twenty-three (23) years and the oldest worker was 56 years. It is further

revealed that slightly more than nine out of ten workers sampled had at least a Diploma/Bachelors Degree implying that majority of the surveyed workers were highly-educated. With regard to tribe, sixty percent (60%) of workers belonged to the Akan tribe with those belonging to the Ga and Ewe tribes constituting about 32 percent of respondents. Majority of the workers from the survey were Christians (92.7%). Table 4.2 also shows that nearly half of the respondents (47%) studied business administration while pursuing their highest attained educational qualification with a lot others having pursued social science.

Forty-six percent (45.9%) of respondents obtained their current job through the help of friends and relatives highlighting the importance of social networks in the job finding process in Ghana. This was obtained from the response to this question in the survey: "Through which medium did a worker obtain his/her current job" with workers asked to indicate which of the means was most relevant in them acquiring current job. Slightly more than fifty percent of the workers surveyed were able to make a successful match between them and their current employers through formal means such as newspaper /radio/internet advertisements and direct application. Sampled workers were relatively high-income earners as more than 8 out 10 respondents earned at least GH¢1500 monthly. The average number of jobs workers has had since they started work was almost two (2) while the number of search methods in their job search behavior is two similar to findings from a study undertaken by Nyarko et al. (2014). Furthermore the results reveal that the average number of years workers have been with their present employer was almost five.

Majority of the workers were from the private sector (63%) with those in the public or civil service accounting for the remainder (37%).

4.8.2 Job search methods often used by Workers

The first objective of this study is to determine the search methods that are frequently used by employed workers. This objective is achieved using the multiple responses to question fifteen (15) of the questionnaire in Appendix A. Results are reported in Table 4.3. Column four of Table 4.3 presents the total number of workers and percentage of workers (in parentheses) who used a particular method. In addition columns two to three presents the number and percentage of males and females using a specific search method in enquiring about jobs.

Table 4.3 Job search methods frequently used by Workers

Search methods frequently used by Workers	**Male**	**Female**	**Total**
Newspaper Advertisement	71 (60.68)	52 (59.09)	123 (60)
Enquiries through friends and relatives	68 (58.12)	57 (64.17)	125 (60.98)
Private Employment Agencies	22 (18.80)	18 (20.45)	40 (19.51)
Internet	68 (58.12)	60 (68.18)	128 (62.44)
Public Notices/Posters	11 (9.40)	13 (14.77)	24 (11.71)
Others	5 (4.27)	1 (1.14)	6 (2.93)
Total Responses	245 (209.40)	201 (228.41)	446 (217.56)
Number of workers	117	88	205
Average number of search methods used by workers	2.094	2.284	2.176

Source: Computed from Author's Survey

From Table 4.3, about sixty-one percent of workers resort to friends and relatives when looking for jobs with the internet being the search method which is the most (62%) frequently used by the respondents. The frequent use of internet job search (IJS) could be due to the educational attainments of the workers in the sample with majority of them having attained tertiary level of education and employed in organizations where internet usage is a prerequisite for higher productivity. Increasing level of internet penetration in Ghana and an increase in the number of job advertisement websites could explain this high proportion of workers using this medium.

Most (60%) of the workers rely on newspaper advertisements in the job searching process whereas only twelve percent (12%) seek for new jobs through public notices and posters. In terms of gender, the number of search methods used by male workers is not significantly different from female workers. With regard to social networks' role in the job searching process, a higher proportion of females (64%) than males (58%) use friends and family members in seeking information about new jobs. From the perspective of traditional method of search, which is the search process through newspaper advertisements, the percentage of male workers using this channel is not much different from female workers.

Employment agencies are not a favorite option for most on-the-job searchers as only twelve percent (12%) of workers use this medium in searching for jobs. Overall, the average number of search methods used by workers is two (2) similar to finding by Nyarko et al. (2014): a study which also used a sample of formal sector workers in Accra.

4.8.2 Search method that facilitates the match between workers and their first employers

Much of the information used in making analysis from the survey conducted was obtained from respondents' first job. A successful job search method is one which was most important in generating a match between a worker and an organization. Particular emphasis is placed on the role of informal contacts (friends and relatives of workers) in worker's transition to their first jobs. As such these contacts are further divided into male and female contacts employed with organizations which offered respondents their first jobs and those who were not employed by them.

Options were also provided for formal methods of search and this was also grouped into Newspaper /Radio/TV/Internet advertisements, and factory visits (which was captioned as Direct Application to Employer without prior information about existing job). An open option was given to capture individuals who obtained their jobs through other mediums.

Even though the survey did not solicit information on the magnanimity of the influence of social networks in worker's acquisition of their first jobs, the caveat was to capture that effect through the response given for the most important search method that aided workers in their acquisition of their first jobs. Thus the various informal means through which workers obtained their first job is used as a proxy for the importance of social networks (female and male contacts) in securing jobs. The results of the most important means through which workers obtained their first jobs are presented in Table 4.4. Some of the sampled workers had held more than two (2) jobs, thus the questionnaire could not capture information of their first jobs. Thus, there was a reduction in the number of workers used for the econometric estimation in this section.

Table 4.4 Most Important Search method Workers used in obtaining their first jobs

Search Method	Male	Female	Total
Newspaper /Radio/Internet Advertisement	12 (13.33)	13 (19.70)	25 (16.03)
Through female relative or friends employed in organization	6 (6.667)	12 (18.18)	18 (11.54)
Through male relative or friend employed in organization	19 (21.11)	8 (12.12)	27 (17.31)
Through female relative or friends not employed in organization	4 (4.444)	5 (7.576)	9 (5.77)
Through male relative or friend not employed in organization	12 (13.33)	5 (7.576)	17 (10.90)
Applied directly to Employer without prior information	30 (33.33)	15 (22.73)	45 (28.85)
Others	7 (7.778)	8 (12.12)	15 (9.62)
Total	90	66	156

Individuals who had held more than two jobs since they started working were dropped for this analysis as data on their first job was not obtained.
Number of workers who obtained their first job through a particular search method is represented as the frequencies and the percentages of those workers are in parentheses.
Source: Computed from Author's Survey

According to Table 4.4, about three (3) out of ten (10) workers obtained their first jobs through direct application without any information about job availability at the various workplaces. On the other hand, sixteen percent (16%) of workers had their first jobs though the print and electronic media. However, the proportion of males who obtained jobs through the latter medium (13%) is more than that of female workers (20%).

Social networks (use of informal means in obtaining jobs) played a significant role in the establishment of a job match as forty-five (45) percent of workers obtained their first jobs through informal contacts (both insiders and outsiders who had some form of influence). This is in contrast

with Simon and Warner (1992) who found that only fifteen percent (15%) of workers obtained their first jobs through the help of friends, relatives and acquaintances. Males are more likely to be beneficiaries of informal contacts as slightly more than half (52%) obtained first jobs through their social networks compared to females (45.5%). A marginal difference is observed between the use of social networks as seen in this study compared to that undertaken by Loury (2006) in which about fifty-six percent (56%) of young men obtained their jobs through social ties.

Moreover, female friends or relatives who are insiders offer more help to their cohorts (18%) than they do to males (7%). In the same vein, male insiders also make it possible for their cohorts to get jobs (21% of males obtained jobs through other males) compared to the help given to females. Difference exist between the percentages of females establishing a successful job match through their cohorts as against males using the opposite sex is the same. Advertisement in the print and electronic media and reliance on personal contacts in acquisition of jobs constitute an important conduit through which workers obtained their first jobs and this is corroborated by Pellizzari (2010).

From table 4.3, the influence of outsiders cannot be underestimated. About 17% of the workers had their first jobs through informal contacts who were not themselves working for the employers they were subsequently matched with. There was however a marginal difference between the proportion of males (17.7%) who obtained their first jobs through "outside influence" and that of females (15%). Few of the workers obtained their jobs through other means. Only ten percent (10%) of workers obtained their jobs through other methods: most of which include national

service postings, private employment agencies and in some cases state recruitment departments such as the civil service directorate.

To conclude, the findings from the survey shows that most workers obtained their first job through informal contacts. The success rate of this search method could be due partly to the strong extended family and religious bonds that exist in Ghana which makes it a social obligation for employed as well as influential ties of unemployed workers to facilitate their entry into the labour market. In addition, the use of these networks may be contingent on the quality of networks of workers sampled in this study who were predominantly highly-educated.

4.8.4 Results of Econometric Analysis

In this section the results of the main objective of this study: which is to determine if workers' use of informal contacts in the job search and finding process has any impact on their job tenure is reported. Relationship between the use of informal contacts (social network) in the job search and finding process and job tenure is determined using the Cox Proportional Hazard model. This section is divided into two sub-sections. The first sub-section presents results in which the job acquisition method is dichotomized into formal and informal means. Subsection 4.8.4.2 seeks to test whether the type of contact (female or male contact) an individual used in obtaining a given job matters.

However, in presenting results from the model, certain variables could not be embedded in the model specified in Chapter Four. These variables are Education, Experience, Size of the Firm and Industry. Some of these variables (Education, Industry and Size of Firm) were omitted due to the

high degree of homogeneity of observation in terms of the measurement of these variables between the surveyed workers. In addition, to ensure reliability of the results presented, the analysis presented considers only the first job of workers interviewed.

Various tests and analysis were made to check for the goodness of fit and predicted power of the model. The predicted power of the model is estimated using the Harrell's C concordance statistic (Harrell et al., 1982) of which the various results are presented in Appendixes B and C. Results presented indicate that the value of the Harrell's C is relatively high indicating the predictors used in the model correctly identify the order of the survival times of pairs of workers. Before results were presented, the study checked whether the model used in this study fits the data well. This check was made using the Cox-Snell residual (Cox and Snell, 1968). In the models estimated in the subsections below, the serrated line (see Appendix B and C) is fairly close to the reference 45 degree line indicating that the model fits the data relatively well. The descriptions of the variables used in the Cox Regression model are presented in Table 4.5.

Table 5.5 Description of the variables used in the regression

Variable	Description	*Variable Type*	Categories
INFC	Use of informal means in obtaining jobs	Dummy	1 = Informal contacts 0 = Formal means
INFCmale	Sex of the informal contact who helped respondent in obtaining job	Dummy	1=Male contact 0=other means
INFCFem	Sex of the informal contact who helped respondent in obtaining job	Binary	1=Female contact 0= other means
Age	Age of respondent	Continuous	-
FEM	Gender of respondent	Dummy	1 = being female 0 = being male
MRD	Marital status of the respondent	Dummy	1 = married respondent 0 = otherwise
Satisf	Respondent's rating of satisfaction level	Binary	1= Satisfied worker 0 = An unsatisfied worker
Trg	Provision of training by the Employer	Dummy	1 = Training provided 0 = No training provided
TrdUnion	Trade Union Availability at the workplace	Binary	1 = Trade union available 0 = Trade union unavailable
PrvSec	Institutional Sector which a respondents' Employer belongs to	Dummy	1 = Private sector 0 = Public sector

4.8.4.1 Informal Contacts and Job Tenure

Usage of informal contacts by workers in obtaining their first jobs as against formal channels and impact on their tenure and the results are reported in Table 4.6. Model 1 in the table presents results

with no controls for individual and firm level characteristics. Model 2 which is specified in column 3 of the table controls for workers' and firm level characteristics.

All the job search methods specified in the empirical model are referenced to the formal means of obtaining a job

Table 4.6 Cox Proportional Hazard Model (Duration variable : Job Tenure)

VARIABLES	Model 1	Model 2
INFC	1.700**	1.267
	(0.425)	(0.347)
Age		1.011
		(0.0312)
FEM		1.224
		(0.323)
MRD		0.377***
		(0.127)
Satisf		0.676
		(0.181)
Trg		0.658
		(0.178)
TrdUnion		0.428**
		(0.147)
PrvSec		1.680
		(0.575)
Observations	150	150
χ^2	4.56	52.16
Log likelihood	-287.32	-263.52

Source: Computed from Author's Survey

*Note: (***, **, * denote 1, 5 and 10 percent levels of significance respectively. Standard errors are in parentheses). For ease of interpretation, all the results of the Empirical model specified within the two subsections are in hazard rates other than coefficients.*

From the regression above (Model1), workers who used informal contacts in obtaining their first jobs as against those who acquired their first jobs through formal means are seventy percent (70%) more likely to leave those jobs and this is significant if a Wald test is performed ($p<0.05$). Thus workers who used informal means in obtaining their first job have shorter tenure compared to those who acquired first jobs through non-informal means. However the likelihood of a worker who used informal means in obtaining first job leaving that job diminishes if controls are catered for. This can be seen in Model 2. In this case, these workers are about twenty seven percent more likely to leave their first jobs and this is not significant.

Results above is in sharp contrast to most studies which found that informal contacts usage in the acquisition of jobs positively impact job tenure (Simon and Warner, 1992, Kmec, 2007). With Model 1, even though it conforms to findings made by Green (2012), the latter study has a significant negative relationship after controls are catered for. Green (2012) which used an Australian dataset concludes that unemployed workers who obtained jobs via informal means had less desirable jobs culminating in short-tenured outcomes. Results obtained may be due to the difficulties workers face in obtaining good jobs within the formal sector in Ghana (these difficulties can be minimized through the help of their social networks).Thus, after acquiring some minimal experience, workers are able to move on to better jobs as most advertised vacancies in Ghana require some years of experience in a similar position.

Trade union availability at the workplace enhances a worker's job tenure from the results obtained and is significant at five percent. This result obtained conforms to the exit-voice trade off theory as postulated by Freeman (1980). Workers employed in organization that have unions in place are

about fifty-seven percent (57%) less likely to leave their jobs than those who were/ are engaged in workplaces where no form of employees' association exists. This is similar to results obtained by Loury (2006) which also saw a significant impact of union membership on job tenure.

The dummies for training and level of satisfaction workers perceived to exist on a given job even though are insignificant from the results obtained in Model 2 of Table 4.6, are in line with expectations. Workers who are married are also less likely to leave their jobs and this result is very significant. This conforms to the expected sign of this covariate as the cost of a married worker severing ties with an employer is higher than non-married cohorts.

From Table 4.6, female workers have shorter tenure compared to males but this is also insignificant. Private sector employees have a shorter tenure compared to public sector workers but this is also insignificant. Age did not have any influence on the likelihood of a worker leaving her first job.

With regard to the type of employer a worker was engaged with (private versus public sector), workers who were engaged with private institutions are about 1.7 times more likely to leave their jobs than those engaged by public institutions. Stability of the employment relationship that exists in public institutions could be the reason for the longer tenure in this sector.

4.8.4.2 Does the type of informal contact matter?

In this sub-section, the type of informal search method that was paramount in making a successful match is further divided into (i) female contacts and (ii) male contacts. This additional model is

used to test the "good matches' hypothesis" and "limited choices hypothesis" as postulated by Loury (2006). Male contacts are more likely to be from high income categories compared to females as males earn relatively higher than females within the Ghanaian labour market (Baah-Boateng, 2009). Table 4.7 presents the results as to whether the type of contact matters.

The second column in the table shows impact of the type of contact that was most useful in the acquisition of the first job of respondents with no controls. Model 2 in column three presents results with individual and firm covariates controlled for. The check for goodness of fit for the empirical model used in this subsection (Appendix C) shows that when the informal contact variable in the model is dichotomized into male and female contacts, the model fit the data better.

Table 4.7 Cox Proportional hazard Model (Does the type of informal contact matter?)

Duration variable: Job Tenure

VARIABLES	Model 1	Model 2
INFCFem	2.301**	2.981***
	(0.744)	(1.098)
INFCmale	1.457	0.876
	(0.411)	(0.271)
Age		1.022
		(0.0317)
FEM		0.929
		(0.268)
MRD		0.343***
		(0.116)
Satisf		0.792
		(0.220)
Trg		0.617*
		(0.171)
TrdUnion		0.336***
		(0.117)
PrvSec		1.693
		(0.577)
Observations	150	150
X^2	6.36	61.38
Log likelihood	-286.417	-258.91

Source: Computed from Author's Survey.
*(***, **, * denote 1, 5 and 10 percent level of significance respectively. Standard errors are in parentheses)*

The results from Table 4.5 indicate that the type of contact really matter. Workers who obtained their first jobs through the help of female contacts are more than two times likely to leave those jobs compared to those who obtained them through formal means and this is significant. The effect however is almost three times when controls are included. For workers who used male relatives and friends in obtaining their jobs, they are less likely to leave those jobs as against those who acquired first jobs through formal means. Thus workers who used female relatives or friends in

obtaining jobs have lower tenure as compared to their counterparts who acquired first jobs through the help of male friends and relatives. In this model as well, the other covariates apart from the female variable have the same signs as those in the previous subsection but this effect is not significant. Workers who were trained by their employers have longer tenure as against those who received no training and this was quite significant ($p< 0.10$).

Chapter Five

Summary, Conclusions and Recommendations

5.1 Summary of the Study

Job search is an important process undertaken by the unemployed as well as the employed to facilitate a successful job match. Formal and informal job search and finding methods are the two main channels used in this process.

This study sought to find out if the usage of informal means in the acquisition of a job impact job tenure positively: to determine if jobs obtained through the help of one's social ties last longer compared to job matches established through more formal means. The theoretical and empirical literature reviewed indicates that informal contacts can unravel uncertainties surrounding an unemployed job seeker and can help to generate a good match between them and prospective employers. In addition, various theories postulate that those who are referred by friends and relatives may exhibit similar productivity traits as the latter's reputation may be at stake. Review of the empirical literature found that the job tenure of workers who obtained their jobs through informal means are longer as against those who acquired their respective jobs via more publicly available means of job search with no help from friends and relatives.

Primary data from used to make analysis was generated through a self-administered questionnaire. Relevant information was obtained mainly from formal sector workers employed in some subsectors within the services sector. The survey conducted sought information from workers on the job search methods which was most important in their acquisition of current and previous jobs if any and how long these workers have/did stay(ed) with these employers.

Using a Cox proportional hazard model and controlling for other variables obtained from the review of the empirical literature, the study determined the relationship that exist between the use of social ties in job acquisition as against formal means and job tenure. The model was checked for how well it fits the data using the Cox-Snell residuals (Appendices B and C) before the results were analyzed. The analysis however was restricted to only the first job.

From the study, workers who obtained their jobs through the help of friends and relatives as against those who did not are about 1.7 times more likely to leave those jobs and this was significant at conventional levels. The negative impact on job tenure is however insignificant after controlling for both individual and firm-level fixed variables. This result similar to findings made by Green (2012) is at variant with most studies that sought to empirically test the relationship existing between social networks and job tenure. Results obtained could be due to the observation made by Yogo (2011) jobs that are obtained through one's social network may be of a lower quality. All the other variables which were significant and controlled for conformed to expected signs.

The study also tried to find out if the type of contact mattered. As a result, the informal contact variable was further dichotomized into male and female contacts. With this classification embedded in the model, the results were quite mixed. The findings after controlling for the covariates showed that workers who obtained their first jobs through male contact were less likely to leave (had longer tenure) compared to jobs acquired through formal means but insignificant. However, jobs obtained through formal means significantly lasted longer than the ones that were acquired through female contacts. Results obtained from this extended model could be due to the significant earning differentials between males and females within the Ghanaian labour market

with males more likely to be high income contacts and can help a job seeker to be matched to a better job which will be long lasting. The study in addition found that workers who were satisfied with their first job and engaged in organizations where trade union is/was available, training provided for and in public sector organizations had longer tenure.

In conclusion, the importance of informal networks in the job acquisition process cannot be downplayed in Ghana as most workers indicated that they acquired their first jobs through their social ties with male contacts being particularly useful. Findings from this study is at variant with previous studies which saw that jobs obtained through one's social ties last longer. Even though the results do not conform to previous literature, the findings could be due to the lack of jobs in the formal sector making it plausible for workers to accept any job and embark on a search for a better offer after acquiring more experience in the labor market.

5.2 Recommendations

Based on the findings of the study, the following recommendations are made:

- Social networks can facilitate a successful job match between a worker and an employer, thus, it will be more useful if future research concentrates on which social network organization is worth investing in by a worker. Another study in addition to tenure can consider other post-hire outcomes such as wages, job satisfaction among others. Future studies could widen the scope by looking at workers in the informal sector and possibly those engaged in other sectors of the economy. Data collection on how a worker obtained his/her current job could be embedded in future labour surveys to aid researchers in

ascertaining the premium or otherwise of the relationship between social network usage and wages.

- This empirical study found that availability of trade union at the workplace impacts positively on workers tenure as such policy makers can enhance the formation of employees' associations at various organizations especially in the private sector where some of the respondents indicated that it is not in their interest to do so. This can be achieved through public education and forums on the rights of workers as articulated in the Labour Law (Act 651).

- The study further reveals that more jobs were obtained through the help of friends and relatives. This finding corroborates a similar study undertaken by Opoku-Nyarko et al. (2014). This could be attributed to the reason that good jobs could be rationed to workers with good contacts (Staiger, 1990). Framers of a future labour market information system in addition to providing relevant information about jobs can highlight the importance of the investment in social networks such as old boy organizations, community-based and faith-based institutions as these networks may come with salient information about availability and acquisition of jobs.
- Firms should train their staff as workers who received some form of training from their first jobs were less likely to leave. If training is provided by a firm, (which comes at a cost) they will be obliged to motivate them and labour turnover will be brought to the barest minimum. The returns to the firm from higher productivity will enable them to maximize profits.

5.3 Limitations to the study

The study faced several constraints notably in terms of time and funding as it was solely financed by the author. Unwillingness of workers to respond to the questionnaires administered was a major problem due to the work schedule of workers sampled for this study. With these limitations, the scope of the study could not be widened to include more workers across the various sectors of the economy. Moreover, conclusions from the study should be made with great caution as the sample size was small and the analysis was made using onlz the first jobs held by respondents.

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APPENDICES

APPENDIX A: SURVEY QUESTIONNAIRE

Research Title: Informal Contacts and Job Tenure- An Empirical Investigation in Ghana.

Hello, my name is Eric Kofi Twum, a Graduate student of University of Ghana pursuing a Masters of Philosophy (MPhil) degree in Economics. For the purpose of writing an MPhil Thesis, I am undertaking a survey on formal sector workers employed within the banking and telecommunications sectors as well as those employed in the civil service and the educational sectors.

This survey seeks to find out the method of job search used by an individual and its impact on their job tenure. For the purpose of the survey to be achieved, your willingness to participate and provision of accurate information will be highly appreciated.

Confidentiality: The data collected from this survey will be used only for academic purposes and will not be shared with any organization or individual. The information gathered will be analyzed such that an individual's data will not reflect in the final findings and conclusions from the study.

Thank you very much for your time.

Please complete the questionnaire below by ticking the boxes where applicable

SECTION A- PERSONAL INFORMATION

1. Sex : ☐ Male ☐ Female

2. Age: ……

3. Marital Status:

☐ Single ☐ Married ☐ Separated ☐ Divorced ☐ Cohabitation

☐ Widowed

4. Which ethnic group do you belong to?

☐ Akan ☐ Ewe ☐ Ga ☐ Dagomba

☐ Other: (Please specify)……

5. Religious affiliation:

☐ Christian ☐ Muslim ☐ Traditional ☐ Hindi/Buddhism

☐ Other: (Please specify)……..

6. Highest level of education completed:

☐ Less than BECE/MSLC ☐ BECE/MSLC ☐ Secondary/Technical ☐ Tertiary

☐ Post-Graduate

7. Which programme did you pursue for your highest educational qualification?

☐ Science/Engineering ☐ Business Administration ☐ Law ☐ Technical/Vocational

☐ Other(Please specify)……..

8. Have you changed jobs before? ☐ Yes ☐ No ***If No, go to Question 11***.

9. How many jobs have you held since you started your first job?.....

10. At the time you were quitting your previous job, what was your ***highest educational attainment***?

☐ Less than BECE/MSLC ☐ BECE/MSLC ☐ Secondary/Technical ☐ Tertiary

☐ Post-Graduate

11. What was the ***educational attainment of your father*** before you got your first job?

☐ Less than BECE/MSLC ☐ BECE/MSLC ☐ Secondary/Technical ☐ Tertiary

☐ Post-Graduate

12. What was the ***educational attainment of your mother*** before you got your first job?

☐ Less than BECE/MSLC ☐ BECE/MSLC ☐ Secondary/Technical ☐ Tertiary

☐ Post-Graduate

13. Which of the following employment sectors was your ***father*** working in before you got your first job?

☐ Private Formal Sector ☐ Public Sector ☐ Informal Sector

14. Which of the following employment sectors was your ***mother*** working in before you got your first job?

☐ Private Formal Sector ☐ Public Sector ☐ Informal Sector

15. Which of these methods do you use ***often*** when searching or seeking for information about jobs? Tick as many as applicable:

☐ Newspaper advertisement ☐ Enquiries through friends and relatives

☐ Private employment agencies ☐ Internet ☐ Public Notices/Posters

☐ Others: (Please specify).....

16. How much do you earn monthly in your current job?

☐ GH¢400 or below ☐ GH¢401-GH¢800 ☐ GH¢801-GH¢1000

☐ GH¢1001-GH¢1500 ☐ GH¢1501-GH¢2000 ☐ Above GH¢2000

17. How many ***close friends*** do you have at your current workplace?.....

18. How many years and months of experience have you had since you started working?

Number of years…….. Number of Months……..

SECTION B- EMPLOYMENT HISTORY-JOB SEARCH BEHAVIOR AND WORKER'S JOB

Below are two tables that ask questions about your current employer and previous employer. The first table contains questions relating to how you acquired your current and previous job and how long you stayed on that job as well as other details.

Table 1

	Current Employer	Previous Employer
19. What is/was the name of the organisation?	……	……
20. What is/was your job title in the firm?	……	……
21. Are/Were you temporarily or permanently engaged with this firm?	☐ Temporal ☐ Permanent	☐ Temporal ☐ Permanent
22. Were any of your friends or relatives working with this organization before you were offered this job?	Yes ☐ No ☐	Yes ☐ No ☐
23. How did you acquire this job? Tick the one which was most important		
i. Answered advertisement posted in Newspapers/on the Internet	i-☐	i-☐
ii. Through a female relative or friend employed in organisation.	ii-☐	ii-☐
iii. Through a male relative or friend employed in organisation.	iii☐	iii-☐
iv. Through a female friend or relative ***not*** employed in organisation.	iv☐	iv-☐
v. Through a male friend or relative ***not*** employed in organization	v-☐	v-☐
vi. Applied directly to the Employer without any prior information	vi ☐	vi- ☐
vii. Poached by the Employer	vii-☐	vii-☐
viii. Others (please specify)……	viii……	viii……
24. Did you inquire about the nature of the work before accepting the job offer? ***If your answer is No go to Question27.***	Yes ☐ No ☐	Yes ☐ No ☐

	Current Employer	Previous Employer
25. Through which medium did you acquire information about the nature of the job? ***Tick the one that gave you much information:*** i- Brochures/Company Reports ii- Internet iii- Employed relatives/friends iv- Others: Please specify……	i- ☐ ii- ☐ iii- ☐ iv……	i- ☐ ii- ☐ iii- ☐ iv……
26. Which aspects of the job did you know from the above sources before accepting the job offer? Tick as many as applicable i- Wages/Salaries ii- Job security iii- Working conditions iv- Employer's relationship with workers v- Others (Please specify)	i- ☐ ii- ☐ iii- ☐ iv- ☐ v-……	i- ☐ ii- ☐ iii- ☐ iv- ☐ v-……
27. How long did/have you work(ed) for this employer?	**Number of Years……** **Number of Months……**	**Number of Years……** **Number of Months……**
28. How long do you intend to keep your current job? i- Till Retirement ii- When a better offer is received iii- Up to the expiration of my contract iv- Other (Please specify)……	i- ☐ ii- ☐ iii- ☐ iv-……	
29. What will motivate you to stay on your current job till you retire? Tick as many as applicable i- Good conditions of work ii- Better career prospects iii- Job security iv- Good retirement package v- Cordial relationship between workers and management vi- Others (Please specify)……	i- ☐ ii- ☐ iii- ☐ iv- ☐ v- ☐ vi-……	

	Current Employer	Previous Employer
30. Why did you leave this job or change employer If you have been working for your current employer since you started work, ***do not tick any of the boxes and Go to Question 32***. i- A better opportunity was offered elsewhere ii- Relocate to another town or region iii- Laid off or firm shut down iv- Had to go back to school v- Others(Please specify)……		i- ☐ ii- ☐ iii- ☐ iv- ☐ v-……
31. How will you rate the following in influencing your decision to leave your previous job? Each response is ranked ***0 to 2.*** *The rankings shows the extent to which the reasons below impacted your decision to leave this job. (**0 indicates Not important, 1 represents Important** and **2 denotes Very Important** reasons for leaving your previous job).* *Circle the appropriate response.* i- *Wages and salaries* ii- *Working conditions* iii- *Job security* iv- *Heavy Workload* v- *To spend more time with family* vi- *Relocation of family* vii- *Problems with management*		i- 0 1 2 ii- 0 1 2 iii- 0 1 2 iv- 0 1 2 v- 0 1 2 vi- 0 1 2 vii- 0 1 2
32. Have/Did you made/make any attempt at changing your current/previous job? ***If your answer is No, go to Question 34***	Yes ☐ No ☐	Yes ☐ No ☐
33. If your answer is ***Yes*** to the Question 32, were any offers received?	Yes ☐ No ☐	Yes ☐ No ☐
34. If your answer to ***Question 32*** is No, was it because there are/were limited job opportunities available?	Yes ☐ No ☐	Yes ☐ No ☐

	Current Employer	Previous Employer
35. Were you married before you left previous job?		Yes ☐ No ☐
36. Do/Did you have any child (ren) now or when you were with your previous employer?	Yes ☐ No ☐	Yes ☐ No ☐
37. Does/Did this job suit your educational qualifications?	Yes ☐ No ☐	Yes ☐ No ☐
38. Are/Were you satisfied on this job? i- Not Satisfied ii- Satisfied iii- Very Satisfied	i-☐ ii-☐ iii-☐	i-☐ ii-☐ iii-☐
39. If trade union is/was available at your workplace, are/were you an ***active member***?	Yes ☐ No ☐	Yes ☐ No ☐
40. What is/was the nature of the job? i- Administrative/Managerial ii- Clerical iii- Sales iv- Professional/Technical v- Production Related vi- Other (Please Specify)……	i-☐ ii-☐ iii-☐ iv-☐ v-☐ vi……	i-☐ ii-☐ iii-☐ iv-☐ v-☐ vi……

SECTION C- EMPLOYMENT HISTORY-WORKPLACE CHARACTERISTICS

This section seeks to find out from the respondent the characteristics of the employer he/she is working with or worked for. Tick the appropriate boxes.

Table 2

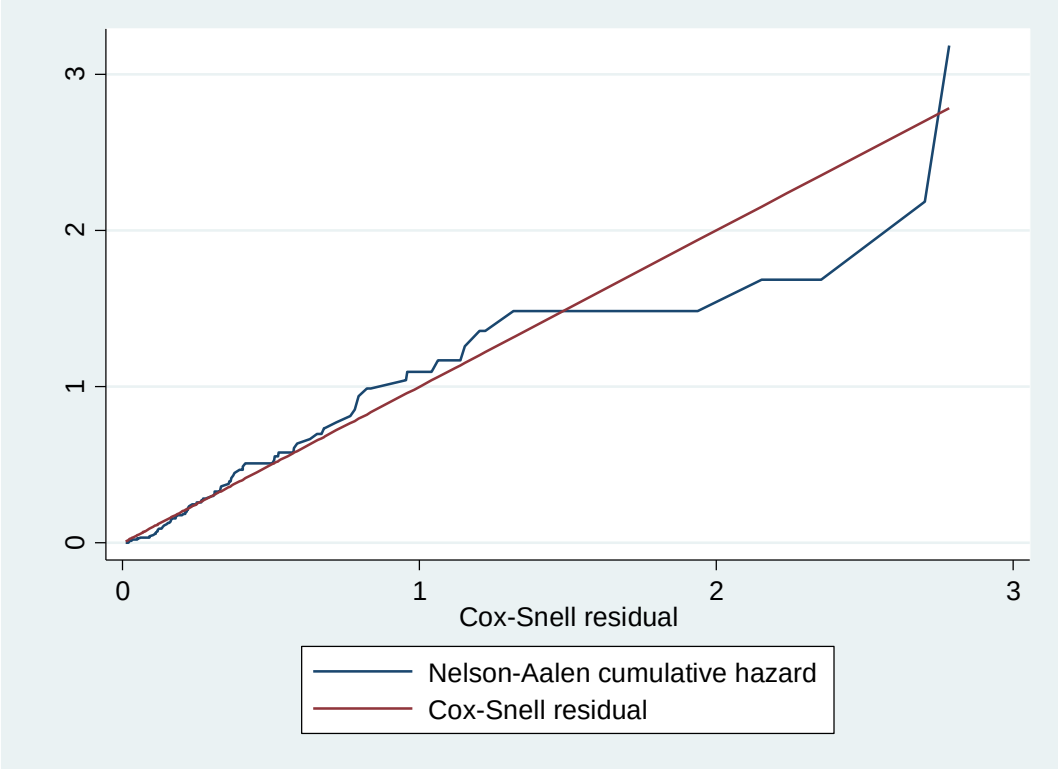
	Current Employer	Previous Employer
41. How many employees does/did the organization employ?	☐ 1 – 9 ☐ 10 – 35 ☐ 36 – 50 ☐ Above 50	☐ 1 – 9 ☐ 10 – 35 ☐ 36 – 50 ☐ Above 50

	Current Employer	Previous Employer
42. The firm you are working for/worked for, which industry is it located? Write the industry in the boxes on the right hand side i- Agriculture ii- Manufacturing and Construction iii- Telecommunications iv- Financial and Insurance v- Transportation and Storage vi- Education vii- Public Administration and Defense viii- Health ix- Other (Please specify)……..	☐	☐
43. Is/Was trade union or employee association similar to a union available at the workplace?	Yes ☐ No ☐	Yes ☐ No ☐
44. Did the organization provide any form of training?	Yes ☐ No ☐	Yes ☐ No ☐
45. What are/were some of the conditions of service available at the workplace? (Tick all that apply) i- Subsidized/Free meals ii- Paid medical bills iii- Housing loan iv- Car loan v- Rental allowance vi- None ***vii-*** Other (Please specify)……	i-☐ ii-☐ iii-☐ iv-☐ v-☐ vi-☐ vii……	i-☐ ii-☐ iii-☐ iv-☐ v-☐ vi-☐ vii……..
46. In what employment sector is/was the firm? i- Civil or Public service ii- Parastatals iii- Private Sector-Formal iv- Private Sector-Informal v- International Organization vi- Other (Specify)……..	i- ☐ ii- ☐ iii- ☐ iv- ☐ v- ☐ vii-……..	i- ☐ ii- ☐ iii- ☐ iv- ☐ v- ☐ vii……..

END OF THE SURVEY

APPENDIX B

Goodness of Fit Check for Model 2 in Section 4.8.4.1



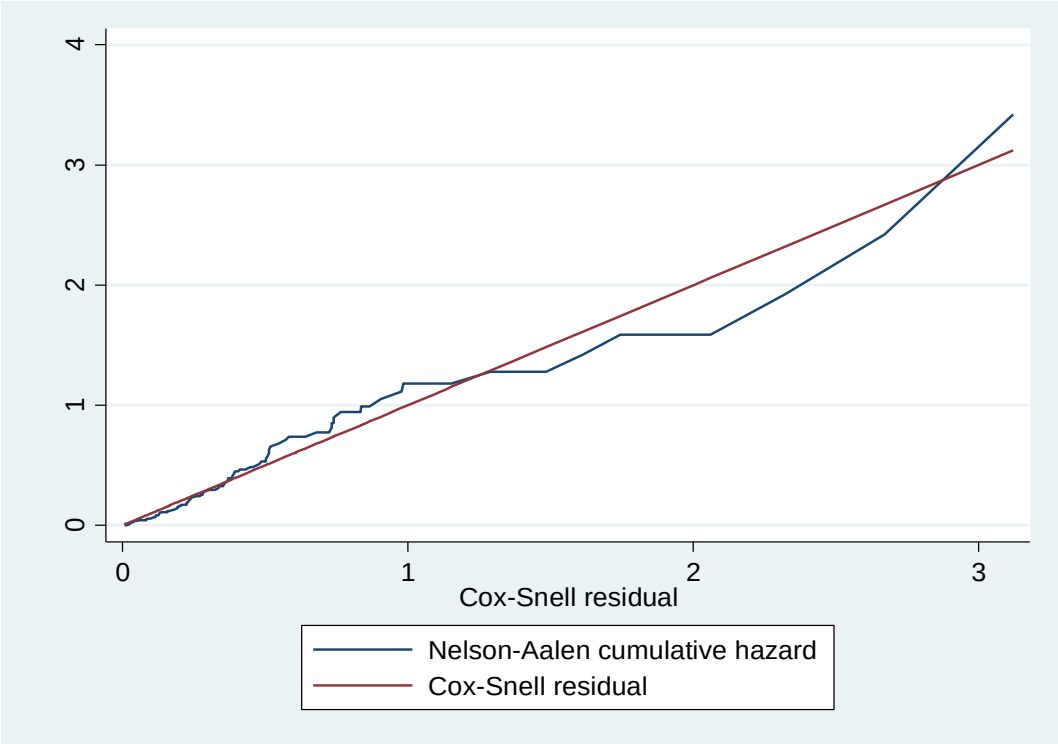
Harrell's C Concordance Test for Model 2 in Section 4.8.4.1

Harrell's C concordance statistic

Number of subjects (N)	=	150
Number of comparison pairs (P)	=	5871
Number of orderings as expected (E)	=	4511
Number of tied predictions (T)	=	4
Harrell's C = (E + T/2) / P	=	0.7687
Somers' D	=	0.5374

APPENDIX C

Goodness of fit Test for Model 2 in Section 4.8.4.2



Harrell's C Concordance Test For Model 2 in Section 4.8.4.2

Harrell's C concordance statistic

Number of subjects (N)	=	150
Number of comparison pairs (P)	=	5871
Number of orderings as expected (E)	=	4603
Number of tied predictions (T)	=	4
Harrell's C = (E + T/2) / P	=	0.7844
Somers' D	=	0.5687