

ECONOMIC AND SOCIO - DEMOGRAPHIC ANALYSIS OF MARRIAGE  
INSTABILITY: CASE STUDY OF KWABRE EAST DISTRICT

BY

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A THESIS SUBMITTED TO THE DEPARTMENT OF ECONOMICS, KWAME  
NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, IN PARTIAL  
FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF PHILOSOPHY (ECONOMICS)

FACULTY OF SOCIAL SCIENCES

COLLEGE OF ART AND SOCIAL SCIENCES

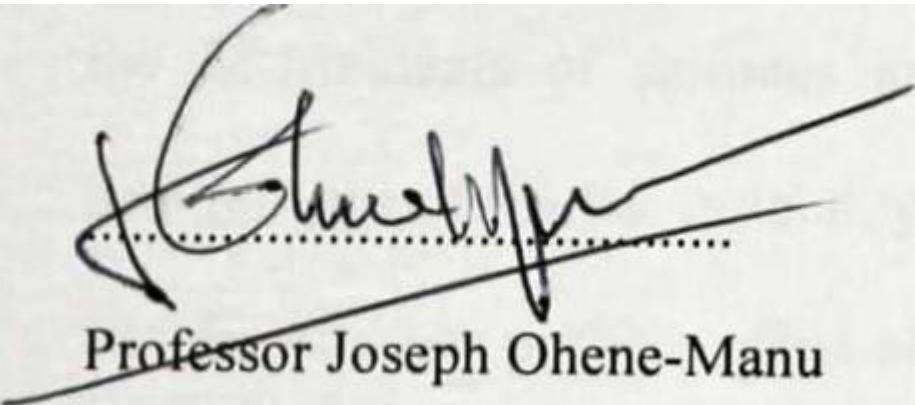
OCTOBER, 2013

DECLARATION

I hereby declare that this submission is my own work towards Master of Philosophy (Economics) degree and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.



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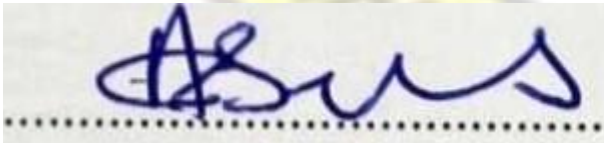
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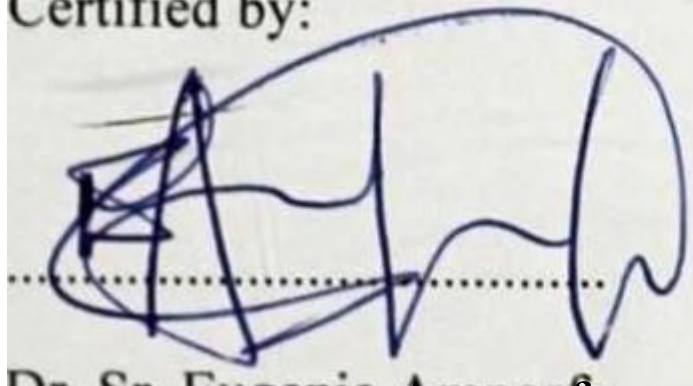
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### ABSTRACT

Divorce cases have been increasing steadily in Ghana (college Press, 2011). Studies have showed that active participation of females in the labour market tends to expose them to the risk of divorce and therefore demoralize them to supply less labour. This study used a primary source of data across households of divorce persons in the Kwabre East District with a sample size of 400 where 210 were divorced females and 190 were divorced males. The study used two conceptual models for the analysis of the entire work. Where the first analysis was based on the earnings and employment function in the labour market, the second analysis was based on the probit regression model representing the marital instability function. The study sought to find out the determinants of earnings and employment in the labour market and as well as the determinants of marital instability. The study found out that education for both divorced males and females has positive effect on the labour market. The marital instability regression results showed that economic activities of females influence divorce more than their demographic factors in the district. The study further recommends that males who have reached the stage of marriages should be financially sound and employed.



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## ACKNOWLEDGEMENTS

The highest thanksgiving goes to the most gracious God for granting me the strength, wisdom, knowledge and the courage needed throughout the period of study.

I wish to show an immense appreciation to my supervisor, Professor Joseph Ohene-Manu who executed his duties of supervising this work in a passionate, lovely and affable manner.

My deep-heartfelt gratitude goes to my mother (Madam Elizabeth Agyeman), grand-mother (Madam Hannah Amoatema) and my siblings for their support in diverse forms.

I wish also to show appreciation to the Head of Registry and Marriage Counsel (Mr. Emmanuel, Amartey Sarpong) as well as the Social Welfare Department and my best friend who works at the Marriage Registry Department (Mr. Gideon Kwesi Yeboah) at Kwabre East District for their invaluable contribution in the success of this study.

Finally, I wish to thank all the lecturers at the department of economics who have contributed in diverse ways in the success of this study.

God bless you all.



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## DEDICATION

This Thesis is dedicated to my lovely mother Madam Elizabeth Agyeman through her resources that have made my program a success. Your inspiration, encouragement and support in diverse forms would always be remembered and cherished.

It is also dedicated to my dear uncle, Professor A. B. Assensoh (Indiana University in USA) who has become my role model since my infancy towards academics.

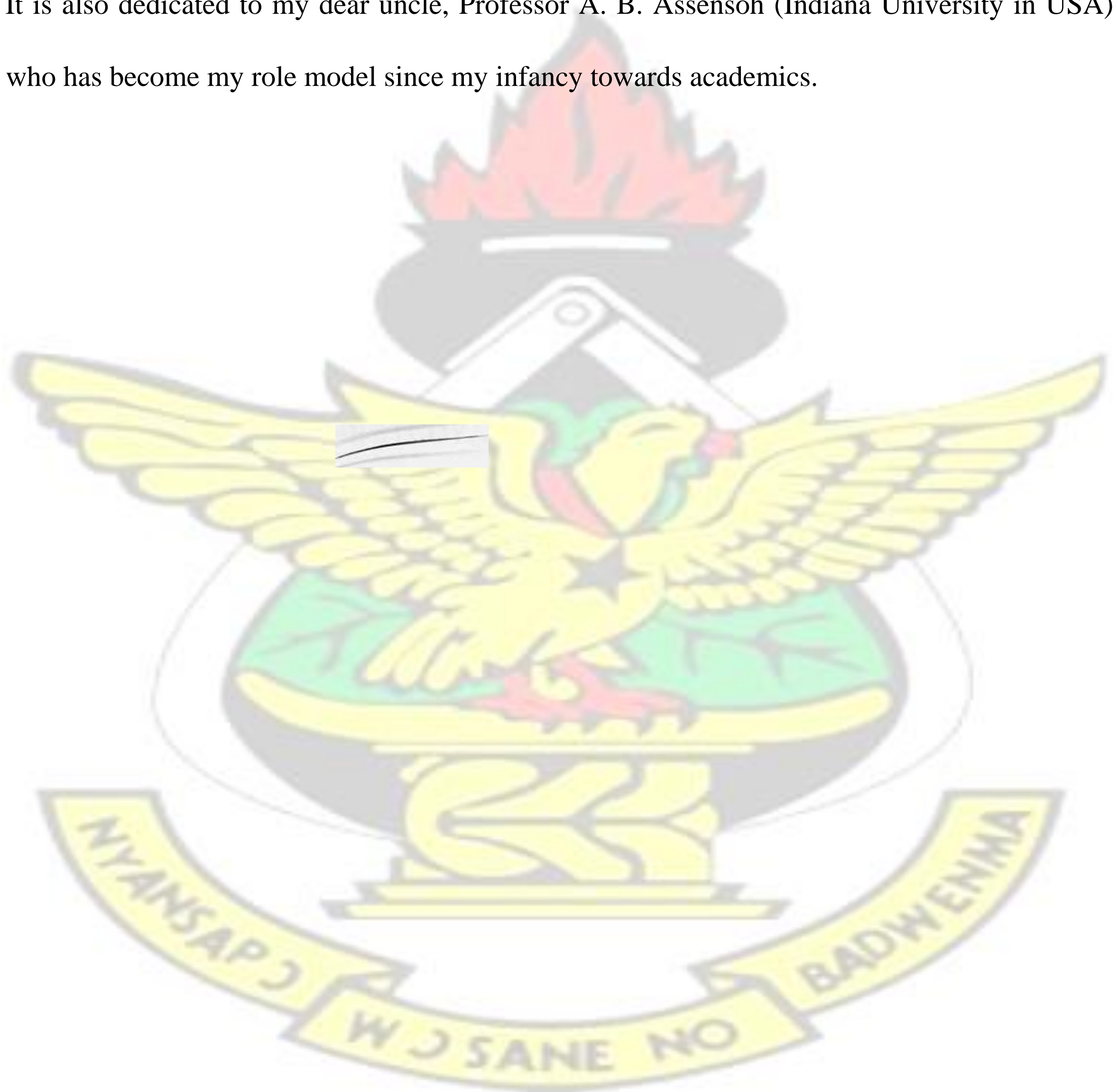


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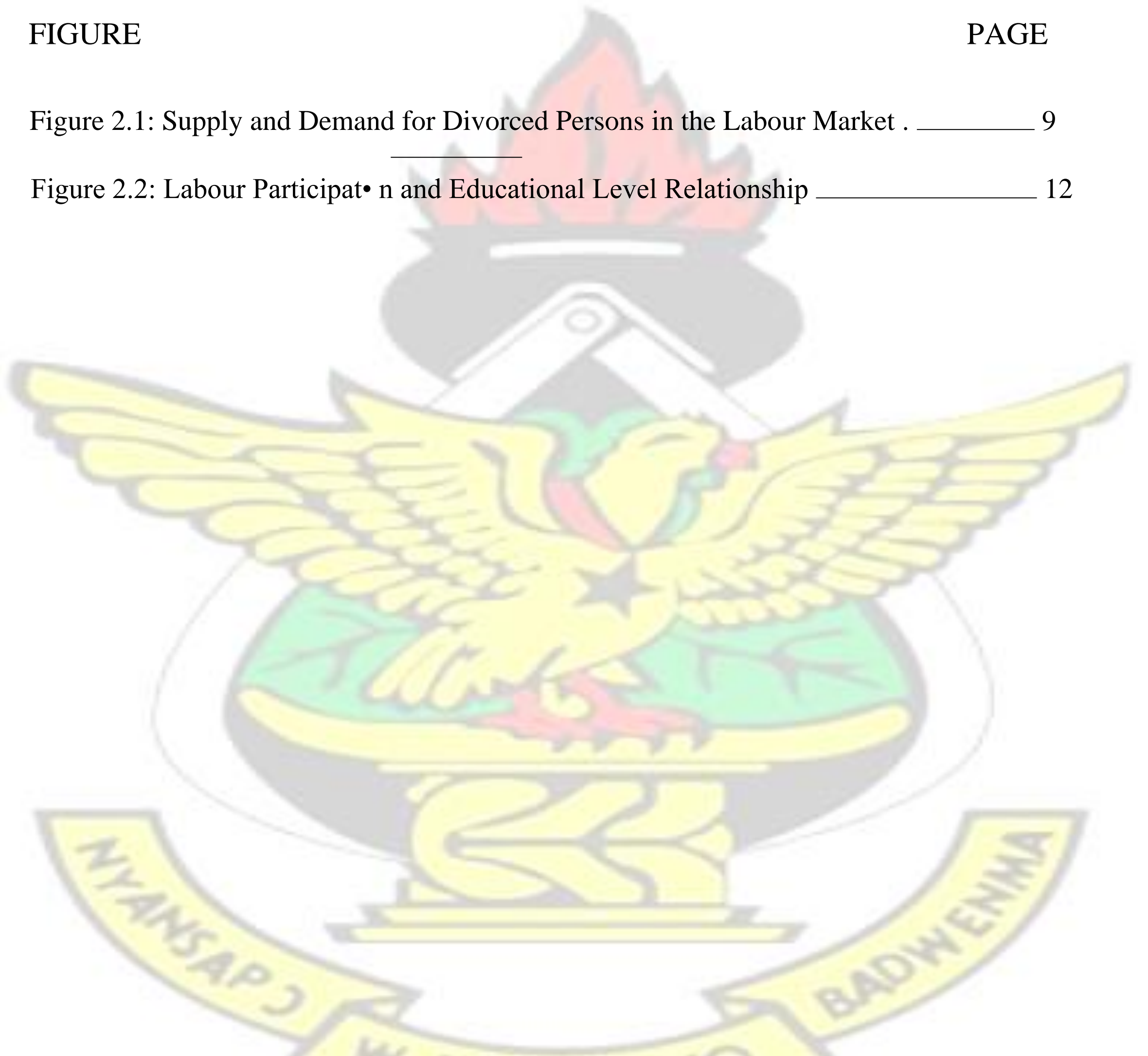
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LIST OF ABBREVIATIONS AND ACRONYMS

AgeM	Age at marriage
AS	Physical Assets Dummy
CHN	Number of children
CDA	Consumer debt accumulation
CNC	Centre for National Culture
CPS	Current Population Survey
DCHN	Children (dummy)
	Labour demand
DRWRAEQ	Divorce Rates and Women of Reproductive Age evaluative Questionnaire
	Earnings per month to represent wages
EDU	Number of years spent on education
EMP	Employment (Number of hours spent at work)
FS	Family Size
GSS	General Social Surveys
GSS-PL	General Social Surveys- Panal data
1	Relative monthly earnings (Dummy)
ISSP	International Social Survey Program
	Equilibrium quantity of Labour

NSFG National Survey of Family Growth OLS Ordinary Least Squares

SHS Senior High School

We	Equilibrium Wage rate
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lir Log likelihood of the restricted regression



## CHAPTER ONE

### INTRODUCTION

#### 1.1 BACKGROUND TO THE STUDY

In Tim Harford's (2008) new book, "The Logic of Life", it is premised on the notion that if we want to understand our world or how to change it, we must first understand the rational choices that shape it. Divorce has become an issue world-wide since the twentieth century. Marital instability has been at the neck of most of the developed and African countries. Current trends suggest that close to two thirds of new marriages end up in divorce. For instance, nearly 32 percent of couples, who divorce, do so before their fifth anniversary and about 63 percent before their tenth anniversary (Martin and Bumpass, 1989 and National Centre for Health Statistics,

1993). Since the nineteenth century, the proportion of marriages ending by death of a spouse has declined, while the proportion ending by divorce has increased, more or less steadily. Divorce rates climbed in the 1960s and 1970s reached a peak in the early 1980s, and has dropped slightly since then. Still the U.S. divorce rate remains high when compared with the rate in earlier eras and in other societies in Africa (Whites, 1990).

Ever since John von Neumann's game theory promised to help us understand love and marriage, economists have been interested in how people choose their partners and how relationships work. Charles Murray also revealed in his book "Coming Apart" that; marriage is indeed becoming a

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luxury good: Well-educated, well-to-do people are more likely than others get married. In economics of marriage, an article by Leora Friedberg and Steven Stern, postulated that people get married due to factors such as love, Sex, children and money. They further argue that the presence of these factors can ensure a stable and continuity of marriage but their absence can likewise lead



to divorce. From Leora Friedberg and Steven Stern's work "Marriage Divorce and Asymmetric information" also reveals that the high incidence of divorce rates, arising because spouses drive too hard to bargain in the presence of asymmetric information. Marital stability has become an ear-marked concern that every married person is expecting more, particularly among the men since there are both direct and indirect costs associated with searching for a partner. An economist Lehrer Evelyn (1988) even attributed the cost of searching for a spouse to job searching; which involves time (thus opportunity cost) and out-of-pocket money. For the above reasons Marital stability has become an issue after the increasing rate of marriages among several individuals within different countries, since it is unusual for someone to marry the first potential partner encountered.

## 1.2 STATEMENT OF PROBLEM

In Ghana the startling statistic from the Head office of Legal Aid Ghana reveals that, at least 40% of marriages registered annually in the Greater Accra region break up within a spate of fourteen (14) months and it is expected to increase (College press, 2011). The argument was that in the year 2010, there were 125 marital cases that were referred to lawyers for divorce and 178 divorce cases pending for final negotiation whereas hearing was yet to open on 146 cases in 2011. But the statistics on the average monthly and annual divorce cases recorded in the Kwabre East district far—out-weighs that of Greater Accra region divorce cases recorded annually by

34.8% (Head office of Legal Aid of Registry, Accra).

-The—Ashanti Regional Director for Centre for National Culture, Mr. Samuel Francis attributed the divorce rate in the country to abolition of some customs like puberty rites and other extensive body of research. He also suggested that, the way couples organize their working lives may affect the stability of their relationship. But it is not clearly understood, why work affects divorce.



The distribution of the labour force in the formal sector of the Ghanaian economy shows that women generally occupy lower and middle strata at their work places. Occupational groups in the 1980s were such that in the administrative and managerial positions only 9% were women, while among the clericals, sales and service workers, there were 75% women. Thus women form over two-thirds of employees in the lower stratum of the public sector and less than one-tenth of employees in the upper stratum (Rasheed, 2007).

Many erudite have proven that active participation of female in the labour market tends to expose them to the risk of divorce and therefore demoralize them to supply less labour (Papps, 2006 and Liat Raz, 2011). However, in the literatures reviewed, no study has been done to investigate into the consequential positive correlation between the upward trends in marital instability and women's labor supply in Ghana.

### 1.3 OBJECTIVES OF THE STUDY

The study has two main objectives;

One of the main objectives of the study is to find out whether economic activities (factors) influence divorce more than-Gãõaßhic factors. The other objective is to determine factors which influence the earnings as well as the employment of the divorced persons in the labour market.

The specific objectives are as follows;

1. To determine whether gender is important in addressing the marital instability.

2. To investigate whether economic variables such as relative income, consumer debt accumulation, employment and physical assets cause marital instability
3. To find out the impact of the educational level of the divorced persons on their earnings in the labour market.
4. To find out the impact of the educational level of the divorced persons on their employment status in the labour market.

#### 1.4 JUSTIFICATION OF THE STUDY

The rate of divorce has become a concern to the United Nations, the United Nations Children's Educational Fund and most Governments and non-governmental agencies and institutions around the world. As a result many attempts have been made in order to curb the rampant rate of divorce. The study is therefore expected to come out with policies that would help them combat divorce. So that the resources geared towards the mitigation of divorce could be diverted to other sectors of the economy to stimulate growth and development.

Divorce has become a pressing issue to the Government of Ghana in its attempt to attain healthy and sustainable marriages in the country through some highly recognized institutions like social welfare, Marriage Registry and Counsel Department e.t.c. This study therefore after its

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completion, is expected to help the government of Ghana and all stake-holders to get policies that would ensure stable marriages in the country to enhance human capacity to stimulate growth in the economy. Because efficiency of labour stimulates growth and some of the conditions that improve efficiency of labour also depend on the health status of the labour force, which then affects them physically, psychologically and emotionally and in effect decrease the productivity of the labour force.



Many divorce cases have been associated with crimes such as murder, suicide and loss of lives which tend to ruin the nation's labour force. Since most growth theories in economics including the Solow growth model, Harrod-Domar growth model e.t.c hypothesized that output grow with population (labour force). The study will help the nation to minimize the rampant suicide and murdering rate associated with divorce to sustain the labour force to enhance productivity in the country.

Lastly the study is very important to the development of the nation since the study captures the neglected groups like the divorcee women and men in the labour market. The study wanted to know how divorce affects the labour market in order to get policies to protect the divorcee and the labour market.

### 1.5 STATEMENTS OF HYPOTHESES

In all, four hypotheses were stated and tested.

i) Ho: Economic factors do not influence female divorce more than demographic factors HI: Economic factors influence divorce more than demographic factors among females

ii) Ho: The effects of economic variables interactions on divorce are statistically not different from each other

HI: The effects of economic variables interactions on divorce are statistically different from each other

iii) Ho: There is no impact of education on the earnings in the labour market for the divorced persons

HI: There is a positive impact of education on the earnings in the labour market for the divorced persons

iv) Ho: There is no impact of education on the employment in the labour market for the divorced persons

Hr: There is a positive impact of education on employment in the labour market for the divorced persons

## 1.6 ORGANIZATION OF THE STUDY

In all the study contains five (5) chapters.

Chapter one constitutes the introduction, the statement of the problem, objectives, relevance of the study, hypothesis and the organization of the study. Chapter two provides the theoretical and empirical literature reviews relevant to the study. Chapter three provides a detailed account of the conceptual framework of the operational models and methodology. Chapter four comprises of the result of the empirical model, its analysis, interpretation and general discussions. Finally chapter five provides a summary of the main findings of the study and offers policy implication on the basis of these findings.



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 INTRODUCTION

This chapter is divided into two broad sections. The first section deals with the theoretical literature review and the second section deals with the empirical literature review.

#### 2.1 THEORETICAL LITERATURE REVIEW



Two separate but related reviews are discussed here. The first deals with the theoretical framework of the labour market with reference to divorced women in order to highlight the economic relevance of the subject matter. The second review deals with some general theories and concepts of socio-demographic nature. The essence of this is based on the fact that it is not very easy to separate economic issues from socio-demographic issues, especially when one seeks to address marital instability or divorce matters.

### 2.1.1 THE THEORETICAL FRAMEWORK OF THE LABOUR MARKET

A labour market is the type of market that deals with the interaction or the interplay between workers and employers. Labour economics looks at the suppliers of labour services (workers), the demands of labour services (employers), and attempts to understand the resulting pattern of wages, employment, and income.

The demand and supply of labor is fundamental to production. The supply schedule is the relationship between the present wage rate and the number of labour supplied at that wage rate.

The supply schedule is normally directly proportional to the wage rate. In the long run a positively sloped supply curve represents stagnancy of specialized resources. In a perfectly competitive market, profit is optimized by producing at a price equal to the producer's marginal cost curve. The sum of the individual producer's marginal cost is expressed through the supply curve. Under normal circumstances the increase in the wage of an employee increases the production since the labor receives an incentive to work. But this phenomenon can also affect the worker negatively because extreme wage increments might make him/her lazy thus generating less production.

Labour market issues include employment, unemployment, participation rates and wages. In recent times, demographic changes have resulted in an increasingly ageing workforce. Labour markets

provide the structure through which workers and employers interact in relation to jobs, working conditions and pay.

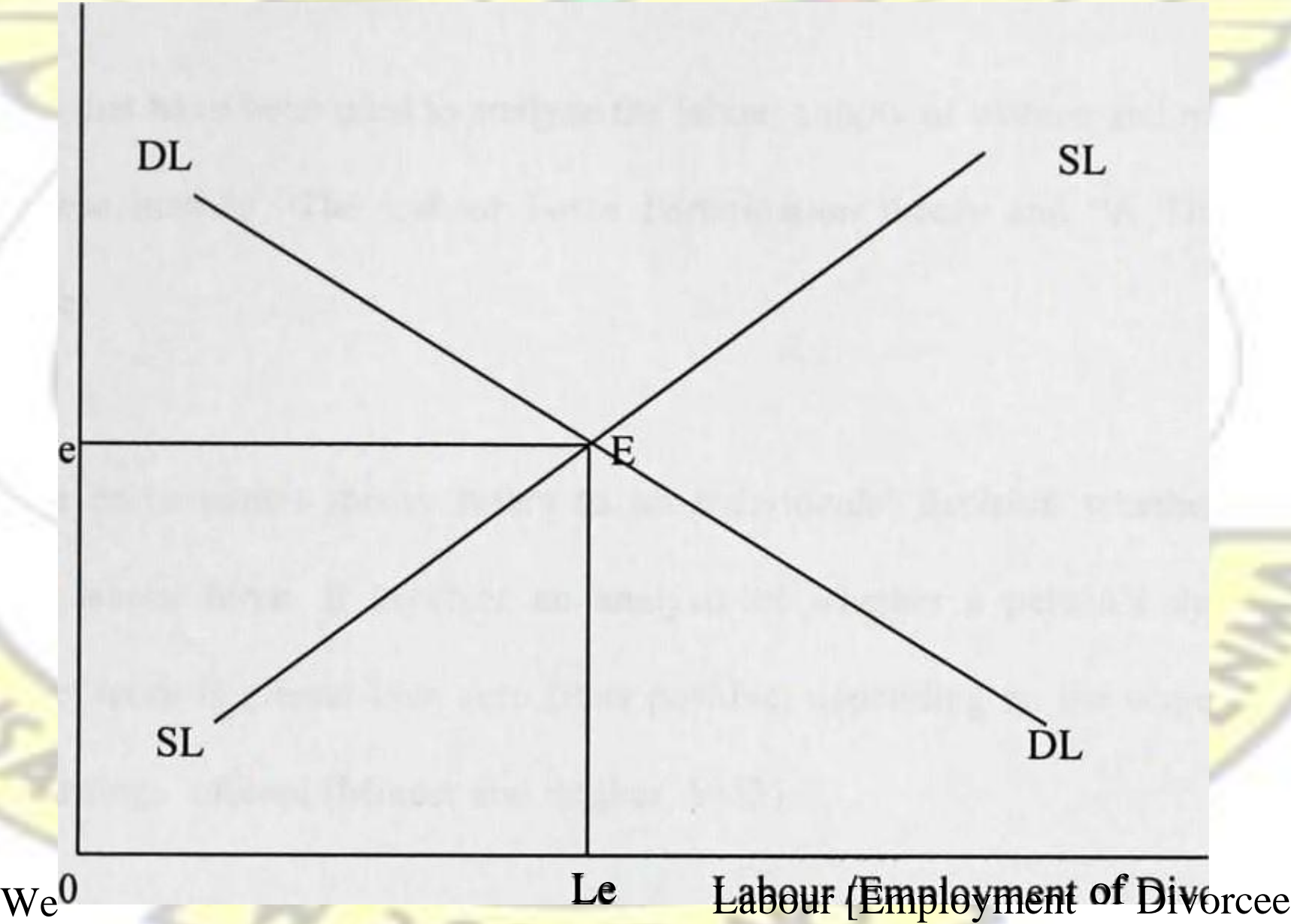
In the labour market for the divorced women, employers or companies hire workers (divorced females). The employers' demand for labour and the willingness of the divorced women to supply labour determine the level of wage or salary for a job. In the competitive labour market for the divorced women the demand and supply of labour interplay in the market determines the quantity of labour ( $L_e$ ) and the optimal wage rate ( $W_e$ ) at the equilibrium as illustrated in figure

2.1.



Figure 2.1: Supply and Demand for Divorced Persons in the Labour Market

Wages of Divorcee





In figure 2.1, DL = Labour demand or employment, DS= Labour supply,  $W_e$ = Equilibrium wage rate and  $L_e$  = Equilibrium Labour.

The neoclassical theory of allocation of time describes labour supply decisions (to participate or not to participate in the work force) of individuals. Based on this theory, individuals are assumed to value their time according to his/her preferences that maximize utility, and then he/she decides whether to participate in the labour market. The individual compares the value of his/her time in the labour market with the value of time spent on non-market (household) activities. If the value of time spent on market activities exceeds the value of non-market activities, all other things remaining constant, the individual would decide to participate in the labour market (see, Güvenç and Bhatti, 2005).

The main theories that have been used to analyze the labour supply of women and men emerged in the 1960s. These include "The Labour Force Participation theory and "A Theory of the Allocation of Time.

The Labour force participation theory refers to an individual's decision whether or not to participate in the labour force. It involves an analysis of whether a person's desired hours allocated to market work is greater than zero (thus positive) depending on the wage rate or the salary/ monthly earnings offered (Mincer and Becker, 1962).

The theory of allocation of time as explained by Spencer (1973) submits that the hours worked involves a decision about how long to work given that the individual is a labour force participant.

Hours worked involves a decision between full time and part time work and this determine the remuneration i.e. wages paid to the employee. In other words, a full time worker receives a relatively higher wages or earnings than a part-time worker. This idea is also supported by Ehrenberg and Smith (1997).

Several factors influence ~~he~~ women's decision to participate in the labour market. Some of these include the average market wage rate, the number of dependents living in the household, the level of educational attainment, marital status, divorce, access to social security programmes and residence (Rasheed, 2007).

Ultimately, the decision to participate in the labour market is based on an individual's preferences for work and leisure. Theoretically work and leisure are inversely related. This is because the individual is constraint with time (24 hours) and the individual is to trade-off the 24 hours between working hour and leisure. That is if the individual preference is high for leisure then less time is devoted for work but if the individual preference is low for leisure then fewer hours is devoted for leisure and more hours for work.

Paid work provides individuals with substantial benefits, including a means to satisfy their material needs and those of their families, the opportunity to develop personally, live independently and interact socially.

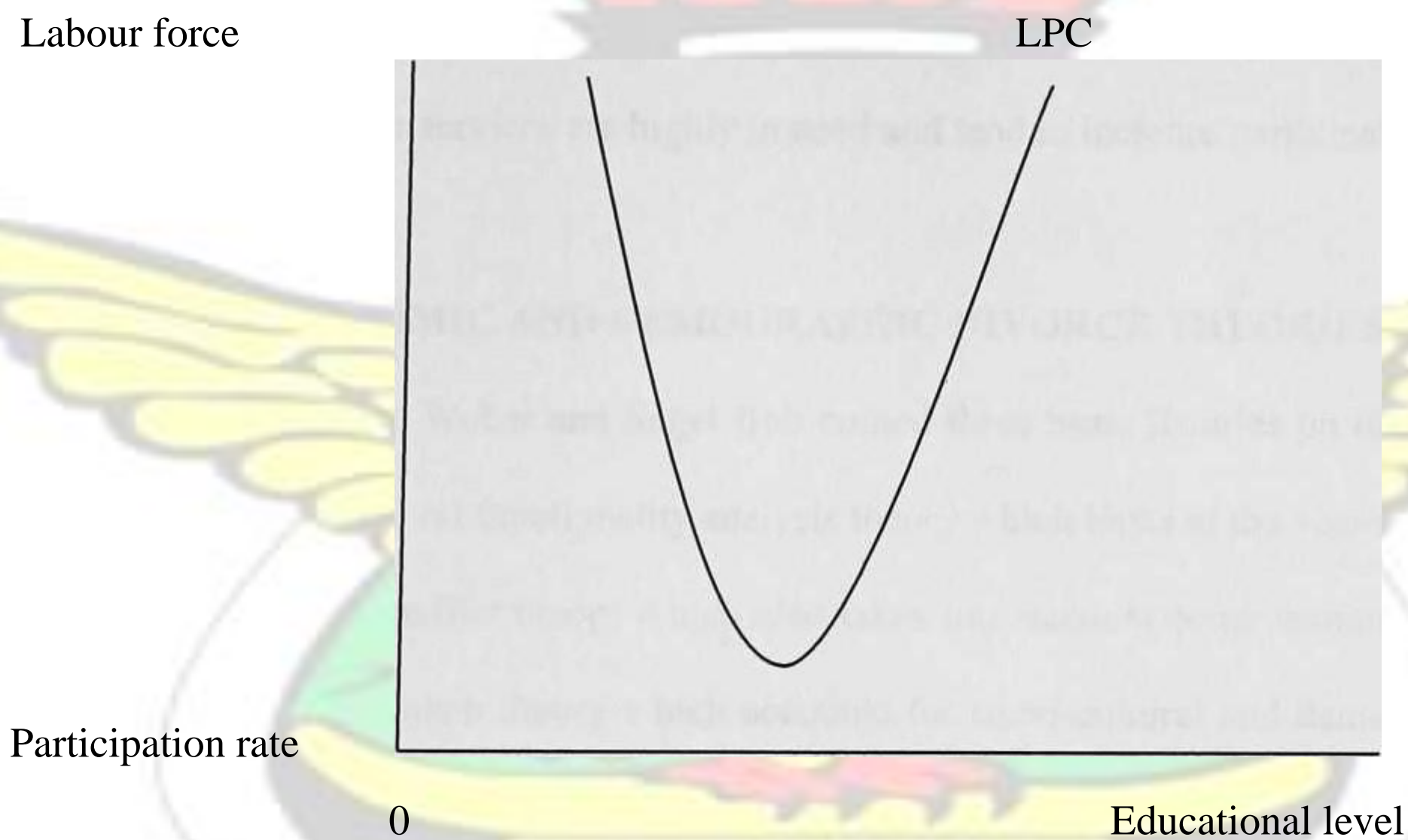
There is an income effect aspect of the labour supply for both married and divorced women explained by the independence and security. The significance of the income effect in affecting the labour supply of married women can be reflected in the labour force participation behaviour of



married women who face relatively high probabilities of divorce. It is evident that the probability of divorce induces married women to participate in the labour force (Layard et al 1994).

Education also plays an important part in the labour force participation. Adam smith (1960) has argued thaHhe relationship-ã&#x2014education and labour force participation (LFP) is U-shaped across years of education. Thus LFP rates tend to be higher for illiterates, lower for people educated at the primary and secondary level and higher for college graduates.

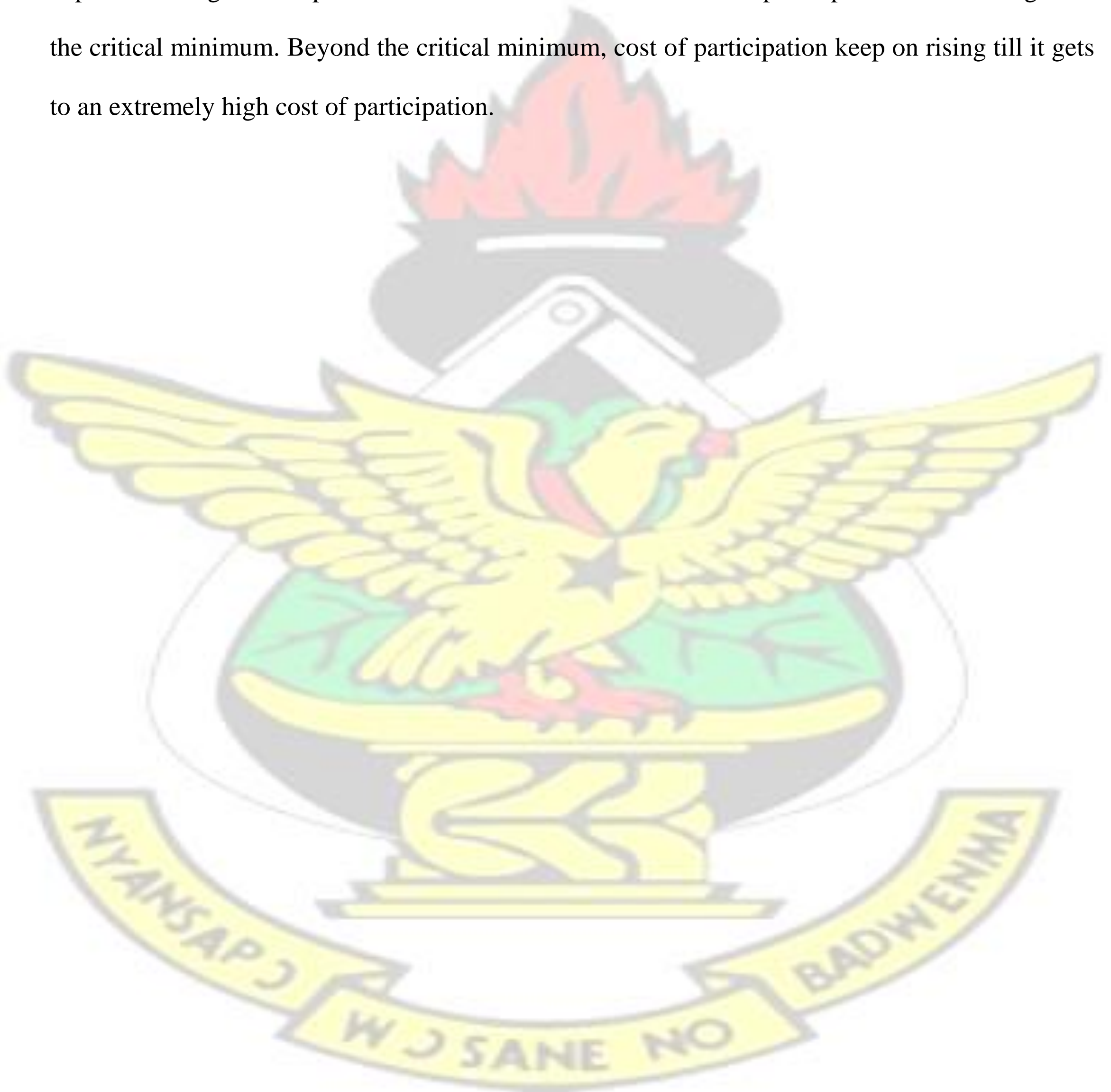
Figure 2.2: Labour Participation and Educational Level Relationship



From figure 2.2, the u-shape nature of the labour participation rate explains the cost of participation in the labour force as a result of educational attainment. That is at a low level of education (high illiteracy rate) is attached with a lower cost of participation since lower wages or salaries are paid to the illiterate workers so most illiterate divorcee would be employed and participation rate tends

to be high. The high LFP rates at low levels of education (illiterate) and thus low wages can also be explained by the need to earn some income as a means of survival.

Also when workers attained some level of education the cost of participation becomes relatively expensive-or high-fras compare-tõifréÄilliterate and tends to decrease participation rate until it gets to the critical minimum. Beyond the critical minimum, cost of participation keep on rising till it gets to an extremely high cost of participation.





Finally at a very high level of education there is an extremely high cost of participation but workers are employed based on their areas of specialization irrespective of the cost of participation since their services are highly in need and tend to increase participation rate.

### 2.1.2 SOCIO-ECONOMIC AND DEMOGRAPHIC DIVORCE THEORIES & CONCEPT

Sociologists Karl Max, Weber and Saget Bob coined three basic theories on divorce. They are functionalism or Structural functionality analysis theory which looks at the economic factors that account for divorce; conflict theory which also takes into account some economic factors; and the symbolic interactionism theory which accounts for socio-cultural and demographic factors.

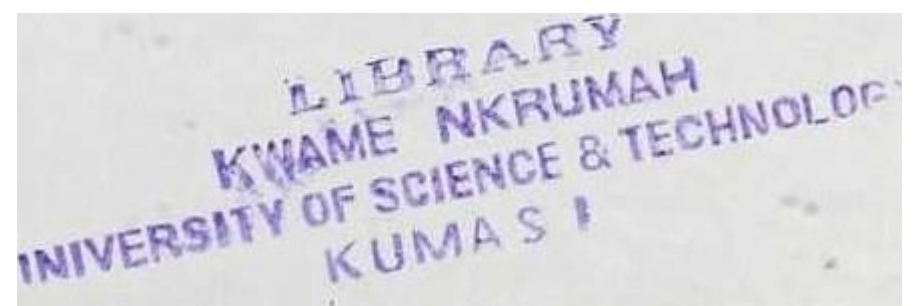
These are reviewed as follows.

#### 1. Functional Analysis Theory

This takes into accounts Industrialization and Urbanization. The functionalist theory claims that society is in a state of balance. This theory talks about how the advancing in technology, new businesses, and urbanization has had a bit of influence on the divorce rate. New technologies like computers, social networking, cell phones, dating websites; all contribute to the alarming rate of divorce.

The afore-mentioned technologies above are so awesome, because they make our lives so much easier, but can also cause us to do bad things as well. For instance the internet makes it so much easier to reconnect with old-ffãGíhat good intentions could become bad, quickly. This reason has become the root for most separation since it tends to breach trust among couples.





## 2. Social Conflict Theory

The conflict theory is most extensive theory as compare to the other theories of divorce. This theory takes into account authority and power struggling among couples, Karl Marx argued that conflict theory is especially useful in understanding war, wealth and poverty, the haves and the have not's, revolutions, political strife, exploitation, divorce, domestic violence, rape, child abuse, slavery, e.t.c and more conflict-related social phenomena. The theory claims that society is in a state of perpetual conflict and competition for limited resources. The theory is all about the haves and the have-nots, the patricians and the plebeians, the ones with all the power and the ones with little power, the pimps and the hoes. Even in peace there is a struggle for power. Everyone wants the leg up on their competitor. This happens a lot in marriages, the man thinks that he should have the power because he is the man and "traditionally" the man goes to work to provide for the home. But the woman thinks that they should be given some recognition and respect for staying home to take care of the children in the marriage or giving the mandate to part-take in the labour force to make some earnings to support their family. Sometimes not all fights may concern money; but rather comes from power sharing thus who has the power over the other. Who wears the pants, who is the pimp and who is the hoe.

The conflict theory extends to the theory of rational marriage and divorce as propounded by Barham, Vicky, Devlin, Rose Anne, Yang and Jie (2009). The theory postulated that, economies of scale associated with-livinyäš-a—couple rather than in two separate households provide an incentive to marry; problems with free riding in the provision of household collective goods may lead to divorce. Marriages which involve partners who are similar, in tastes or in their productive capacities, and in which private goods are equally shared, are the most likely to be stable. In



contrast, marriages which involve very desperate partners, or which share the fruits of market labour very unequally between the partners, are more likely to be short-lived and end in divorce.

The dependency theory is also an aspect of the conflict theory as propounded by Becker, Landes and Michael (1977). The theory argued that, the major gain from marriage lies in the mutual dependence of spouses, which arises out of their differentiated roles: the husband specializes in breadwinning and the wife in domestic production (and reproduction). The theory suggested that when a wife's resources compare more favorably with those of her husband, specialization decreases and hence the risk of marital disruption increases.

There is also the equal dependency hypothesis as advanced by Nock's (1995, 2001). He argued that equally dependent spouses, in which each of the partners generates 40% to 59% of the family earnings, will have the highest probability of divorce, because the women in these marriages (couples) have the lowest degree of commitment to marriage and both spouses can initiate divorce, because their financial obligations to each other are enervated when their economic contributions are similar. A similar viewpoint can be found in the feminist theories of doing gender (West and Zimmerman, 1987) and gender display (Brines, 1994 and Goffman, 2007).

According-to-these theories-(-ã-fëñiiiist theories of doing gender and the gender display); when traditional perceptions of gender roles exist in a society, a wife who earns more than her husband is not fulfilling her socially accepted gender role, and is therefore more prone to divorce (Blossfeld & Muller 2002).



### 3. Symbolic Interactionism Theory

The Symbolic Interactionism takes into accounts Symbols or things that society or people attach meanings to as the basis for social life. The Interactionism comes in two theoretical forms: Symbolic Interaction and Social Exchange. But the sociological Interactionism theory for the purpose of the study would be focused on the Symbolic Interactionism. The Symbolic Interactionism theory claims that society is composed of ever-present interactions among individuals who share symbols and their meanings. Basically, this says; that the meaning or value one attached to things or symbols may not and probably not other peoples meaning. It brings up that without symbols life would be so much different. We could not coordinate our actions with others.

"Symbolic interactionists explain an increasing divorce rate in terms of the changing symbols (or meanings) associated with both marriage and divorce. Changes in people's ideas about divorce, marital satisfaction, love, the nature of children and parenting, and the roles of husband and wife have put extreme pressure on today's married couples. No single change is the cause, be taken together, these changes provide a strong push toward divorce." (www.Divorce Theories.mht) (Bob Saget, 201 1)

Divorces were seldom occurring back in the days. The word divorce had a huge negative connotation to it. Now, there are new laws that make it much easier to get a divorce and people actually celebrate divorces. In some situations a celebration is needed, but this sends a signal to us that the symbols we give to words, actions, and people change over time. Another example is

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money; some people's life may be centered on getting the cash dollars (money). So money —would symbolize power, well-being, and "the good life" to them.

Higher levels of sexual satisfaction resulted in an increase in marital quality, which in turn led to a decrease in marital instability over time (Blumstein et al, 1983) explained this relationship as an important aspect of the symbolic interactionism.



Thus different societies, family as well as couples have different values attached to those symbols. So any time there is a conflict of interest among those symbols like childbearing, love, and sexual satisfaction e.t.c between the couple's leads to divorce or marital instability.

## 2.2 EMPIRICAL LITERATURE REVIEW

The empirical literature review is divided into two main sections. The first section deals with studies on labour supply, labour force participation, e.t.c and address the issue of divorce or marital instability of women and men in the labour market. The second section deals with studies that address the social, demographic and economic effects on marital instability i.e. divorce in women.

### 2.2.1 EMPIRICAL STUDIES ON THE PARTICIPATION OF DIVORCED PERSONS IN THE LABOUR MARKET

The empirical review on the labour force, labour supply and the labour market inter alia, as regards women who have experienced divorce in their relationships are presented in paragraphs as follows;

vs;

A study by O'Neill and Polachek (1993) on why the gender gap in wages narrowed in the 1980s.

—The study adopted three separates data set including the Current Population Survey, the Panel Study of Income Dynamics and the National Longitudinal Survey in United States (Chicago).

The study sought to identify the factors underlying the declined in the gender gap in wages from

1976 to the 1980s. The study adopted only descriptive analyses for the viability of the study. The study found out that the decline in the gender gap in wages in the labour market was attributed to the convergence in measurable work - related characteristics (thus schooling and work experience) which explains about one-third to one-half of the narrowing in the gap. The remaining fraction is



ascribed to the relative increase in women's returns to experience as well as to the declining win of the blue-collar jobs.

A study by Haya Stier and Noah Lewin-Epstein (2000) on women's part-time employment and gender inequality in the family in Israel. The study used 1994 data collected in fall from a representative sample of the urban adult Jewish population in Israel. The survey was part of the International Social Survey Program (ISSP) project on family and gender-role attitudes with a sample size of 1,287 respondents. The study sought to examine the effects of full-time and parttime employment of women on various aspects of a household's arrangements and therefore adopted a descriptive statistics for the analyses of the study. The study found out that full-time employment represents a significant transformation in women's roles, thus providing the bargaining resources that allow them to affect the household's arrangements. The study further found out that part-time involvement in market work was seen as a way to maintain, rather than to change, the traditional division of labor. Also the study found out that full-time employment contributes to gender equality within the household whiles part-time employment does not. On the other hand the study found out that a fully employed husbands, wives are more likely to participate in housework chores that were female-dominated, and full-time employed women are more likely than part-time employed or housewives to take part in the household's financial and expenditure responsibilities.



A study by Budig, England and Leung (2001) on the persistent penalty: mothers, children, and wages in the united state. The study used eleven years worth of data from the Panel Study of Income Dynamics (PSID) from 1981 to 1991. The study sought to examine the effect of children on women's log hourly wages using a sample that is limited to women between the ages of 18 and 65 with a sample size of 5,461 women. In order to investigate whether the temporal dynamics of the wage penalty provides a more refined understanding of the penalty than a static estimate of the penalty, the study compares two different models associated with two different sets of children variables; one set of children variables measured the effect of the number of children on wages and the other the effect of children over time. The study found out in the fixed-effects model that, women face a sizable penalty from the year after their first child was born and up to ten years afterwards. But over time penalty for having the first child reduces significantly.

A study by Anne-Right Poortman and Matthijs Kalmijn (2002) on the influence of women's work on the rate of divorce by using data from Netherlands. The study examined the economic interpretations of the work effect by unraveling the work effect into five dimensions: (a) the intensity of wife's work, (b) the status of wife's work, (c) potential labour market success, (d) relative labour market success and (e) the division of domestic labour. The results showed that working women have 22 percent higher risk of divorce than women who do not work. Subsequently the findings show that there is no significant positive effect of women's economic occupational status on divorce and that labour market opportunities have little effect. In addition, the influence of the division of labour on divorce is not relative and does not extend to domestic labour. Lastly the findings show that the effect of husband's contribution to domestic work on divorce has increased.



A study by Kerry L. Papps (2006) on the effects of divorce risk on the labour Supply of married couples and adopted a data from the National Longitudinal Survey of Youth 1979. The objective of the study is to model the effect of marriage and divorce probabilities on labour supply and wages within a utility maximization framework. Marriage and divorce probabilities were calculated from the Cox proportional hazard models and are included in regressions of annual hours. The study found out that, married women are found to work more when they face a high probability of divorce. The study further found out that spouses who earn more are predicted to devote additional time to the labour market and are therefore confronted with a high likelihood of divorce and vice versa.

A study by Blau and Kahn (2007) on changes in the labour supply behaviour of married women and adopted a Current Population Survey (CPS) data from 1980 to 2000. The study sought to examine married women's labor supply behavior from 1980 to 2000 and used both descriptive and Tobit model to analyze the data. The study found out that the labor supply function for annual hours shifted sharply to the right in the 1980s, with little shift in the 1990s and these rapid growing or shift in the female labour supply function is ascribed to the slightly fell in the husbands' rearwages in thg4-98Ds-büt-rose in the 1990s.

A study by Nicole M. Fortin (2008) on gender role attitudes and women's labor market participation and adopted the 1972-2006 General Social Surveys (GSS). The study objective was to looked at gender role attitudes as factors modulating the impact of economic fundamentals, such as education and income, on the evolution of female labor force participation (LFP) in the United States. The study showed that the traditional gender role attitudes account for the concave shape of the evolution of LFP over the past 30 years. The gender role effects were found to be dominated and be



remarkably robust to a wide array of controls, including attitudes towards divorce, social, religious and political conservatism, ethnic, health factors, parental and spousal variables.

A study by Karen A. Roopnarine and Dindial Ramrattan (2011) on female labour force participation adopted the National Surveys data in Trinidad and Tobago. Their study sought to identify factors, which influence the ability or desire of a woman to join the labour force. The study adopted a probit model to analyze the data. The probit model was made up of the following independent variables such as education, age, religion and earnings in the estimation of the probability of participation. The results showed that the level of schooling, age, being the head of the household and being single, have positive influences on female participation. On the contrary, the presence of children in the household, accessing social security programmes, and chronic illness have negative effects on labour participation.

A work done by Marta Styrac and Anna Matysiak (2012) on the effects of partners' labour force participation—on marital stability—has been part of the demographic debate for several decades. The study used GSS-PL data prior to and after 1989 which estimated a hazard regression of marital disruption, separately for women and men. The study showed that, after the onset of the economic transformation, working women became significantly more likely to divorce than women who did not have a job. This finding implies that the economic transformation led to a substantial increase in women's dependence on their partners, and made it much more difficult for non-working women to exit unhappy marriages. The men's employment status was found to stabilize marriages both prior to and after 1989.



### 2.2.2 EMPIRICAL STUDIES ON SOCIO-ECONOMIC AND DEMOGRAPHIC EFFECTS ON DIVORCE

This section accounts for studies that address the social, demographic and economic effects on marital instability i.e. divorce in women which are presented in paragraph as follows;

A study by Alan Booth (1985) on social integration and divorce examined how marital timing affects the quality of marriages in USA. The main emphasis of the study was based on the age at marriage of males and females. The study adopted the 1983 National Survey data in USA with a sample size of 1,715. A logit model regression was used in the analysis. The study found out that, the individuals who married at the teens and late twenties have a less stable marriage and vice versa.

A study on the determinants of marital instability by Lehrer Evelyn L. (1988) with the objective of quantifying the influence of the various factors on marital instability using the theoretical

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framework developed in the economic literatures. The study adopted 1982 National Survey of Family Growth (NSFG) data sets in USA. This data set was rich in information on husbands' and wives' characteristics of economic, social and demographic features. The data was analyzed by using a Cox's proportional hazard regression (1972) and a static logit regression model. The Cox's proportional hazard regression model technique was used to analyze the "survival times" thus the interval until a certain event occurs or in other words comparing the period of entry into marriage and the period of parenthood. Also the static logit regression model was expressed as the probability of divorce in a certain interval of time was specified as a function of a number of many explanatory variables. The following findings were obtained from the study. The study indicated that the effect of giving birth to a child before marriage has a higher likelihood of divorce. The research also revealed that marrying outside one's religion substantially increases the likelihood of marital



conflict. The research further reveals that an increase in husbands' education lowers the probability of marital instability but the impact was non-linear. Marriages contracted at young ages are more likely to fail.

The study by Alam-Saha- van Ginneken (2000) on the determinants of divorce in a traditional Muslim community in Bangladesh examined the effects of spouses' prior marital status and socio-demographic characteristics on the risk of divorce. A secondary data was used with a sample size of 1762 Muslim marriages recorded in 1982-83 in Teknaf, Bangladesh. Divorce was recorded by following the marriages prospectively for five years. Grooms' prior marital status was categorized into never married, divorced, widowed or polygynous (already cohabiting with one or more wives) and brides' prior marital status was categorized into never married, divorced or widowed. A discrete-time hazard logistic model was used to estimate the effects of spouses' prior marital status and a number of socio-demographic variables on the rate of divorce. The study found out that polygynous marriage, remarriage and divorce were found to be common in this traditional Muslim community. Also the odds of divorce were found to be 2.5 times higher for grooms' in polygynous marriages and 1.6 times higher for brides' in remarriages as compared to their peers' in first marriages. The study further found out that the rate of divorce decreased with marriage duration. The grooms and bride's low socio-economic status, illiteracy, and early age at marriage increased the rate of divorce. The rates of divorce were much higher if there was no birth in the preceding six months.



A study by Hsiu-Chen et al (2006) on the relationship among sexual satisfaction, marital quality and marital instability was studied over the life course of couples in many previous studies, but less in relation to each other. On the basis of the study a longitudinal data for 283 married couples were used. The study used autoregressive models (cross-lagged model) to examine the causal sequences among marital quality, sexual satisfaction and marital instability for husbands and wives separately. The following results were obtained from the study; the results of crosslagged models, for both husbands and wives, provided a support for the causal sequences that proceed from sexual satisfaction to marital quality, from sexual satisfaction to marital instability, and from marital quality to marital instability. The Initial finding reveals that, high levels of sexual satisfaction resulted in an increase in marital quality, which in turn led to a decrease in marital instability over time. They further revealed that, the effects of sexual satisfaction on marital instability appear to have been mediated through marital quality.

A study by Kristen Reilly (2009) examined the economic consequence of divorce among women. The study adopted data from the Survey of Program Participation (SIPP) from three different panels for the year 1984, 1993 and 2001 and each panel follows 14,000 to 36,700 households over a period of two and a half to four years. The research objective sought to address the question of whether the situation for women following divorce has changed in recent years, and what factors may mitigate the decline in income for divorced or separated women within each of the 2-3 year long panels. The method adopted for the study was the mean tested transfer over time analysis. The results indicated that due to the increased earnings and child support awards between 1984 and 2001, the economic consequences of divorced have lessened. The year 1993 was the worst year for divorce or separation, while in 2001; women were able to retain a greater



proportion of pre-disruption of income. Although, divorce can create a severe financial burden on women but it looks as if there is improvement over time.

A work done by the University of Virginia (2009) adopted 2002 National Survey of Family Growth (NSFG) data sets in USA. The study used descriptive statistic and logit regression for the analysis of the work. Their empirical work findings prove the validity of the hypothesis that, newly couples who take on substantial consumer debt become less happy in their marriages over time. By contrast, newly couples who paid off any consumer debt they brought into their marriage or acquired early in their marriage had lower declines in their marital quality over time. They also revealed that; it does not matter if couples are rich or poor, working class or middle class, if they accrued substantial debt; it puts a strain on their marriage. The results of the study further revealed that, couples with no assets at the beginning of a 36 month period were 70 percent more likely to divorce than couples with \$10,000 in assets.

Adekope (2010) examined socio-cultural factors as determinants of divorce rates among women of reproductive age in Nigeria. The study adopted descriptive survey design. The study sampled 226 women of reproductive age randomly from five local government of Ibadan metropolis in Nigeria. A self-completed questionnaire tagged: "Divorce Rates and Women of Reproductive Age evaluative Questionnaire (DRWRAEQ)" was used to collect the requisite data. The data was analyzed using multiple regression and chi-square statistics. The results showed that there was a significant relationship between educational background of women of reproductive age and divorce rates. The results further reveals that there was a significant relationship between religious affiliation of women of reproductive age and divorce rates. Based on these findings, the study



recommended that family counselor, social workers and other helping professionals will be helpful in providing positive strategies of reducing or solving the problems of divorce facing the families.

A study by Liat Raz-Yurovich (2011) on economic determinant of divorce among dual-earner couples employed a unique set of longitudinal register-based data for the Jewish population in Israel. The study sought to find out the major theories on economic determinants of divorce among dual-earner couples. The study found out that, employment stability for both spouses appears to reduce divorce rate. The husband's salary was shown to be negatively affecting the odds of divorce and the wife's working hours and sector of employment were found to be positively affecting marriage instability. The study further reveals that, couples in which the wife earns as much as or more than the husband were found to have the highest divorce rate.

A study by Maslauskaitė et al (2011) focused on socio-economic determinants of divorce in Lithuania and was based on the linked dataset covering all first divorce and person years of exposure of married males and females during 2001-2003. The data covered all married individuals between the exact ages of 15 and 60, and include 3.18 million person-years of population exposure, and 41 thousand first divorces. The data were provided in an aggregated multidimensional frequency table format that combines first divorce and population exposures, and are split by socio-demographic variables, including date of first divorce, age, sex, number of children (for females only), education, ethnicity, economic activity status, and urban-rural residence. The findings were that, males with lower socio-economic status and lower prospects to fulfill the traditional breadwinner's role experience higher risks to end their marriages in divorce.



The link between the economic role of women and the rate of divorce were inconsistent. Although economically inactive women experience a lower risk of divorce, unemployed women were still more prone for divorce as in the case of males.

A study done by S.H Umoh and H. Adeyimi (2012) was based on the factors that cause divorce in Nigeria. The study was to find out the causes of divorce in Nigeria. The study used a sample size of six hundred (600) students, consisting of three hundred (300) males and 300 females which were randomly selected through a structured questionnaire and adopted a test-retest method covering an interval of 4 weeks. From the test- retest techniques the following results were found; the student perceived barrenness as the number one cause of divorce followed by repeated sickness of any of the spouses. Religious differences and sexual problems occupied the third and fourth places respectively. The least possible causes were cross-cultural marriages and age differences. The paper recommended that Counselors and other stake holders should be encouraged to carry out more studies in this area so that acceptable solutions may be found for the problems-of family dispxganization-to combat divorce.

## CHAPTER THREE

### CONCEPTUAL FRAMEWORK & METHODOLOGY

#### 3.1 CONCEPTUAL FRAMEWORK

A set of two models are conceptualized in this section for the purposes of estimation. The first relates to wages and employment in the labour market when the market is in equilibrium. The second is related to the determinants of marital instability (i.e. divorce).

### 3.1.1 LABOUR PARTICIPATION FUNCTION FOR THE DIVORCED PERSONS IN THE LABOUR MARKET

The labour market involves the interplay of demand and supply forces in the market. In equilibrium wages (earnings) and employment are determined. The present study seeks to find out the determinants of labour participation function for the divorced persons in the labour market.

Two regression equations are conceptualized to constitute the earnings equation and the employment (Hours) equation as suggested by William H. Greene (2007) pp. 789 and 815. The two equations are defined as follows;

#### The Earning (Wage) Equation

$$E_j = f(\text{AgeM}, \text{EDU}, \text{CHN}, \text{CDA}) \dots \dots \dots (a)$$

where E=Earnings per month to represent wages



AgeM= Age at marriage

EDU= Number of years spent on education

CHN= Number of children

CDA= Consumer debt accumulation

j= 1, 2, 3 represent male, female and combined male and female function respectively.

Expectation of signs a priori for the earnings equation in the labour market for the divorcee is as follows. Theoretically, age at marriage for both divorced males and females is expected to be positively related to the earnings in the labour market all other things being equal. Because as number of years prolongs for either males or females, they get more room for education, working for more hours, higher fetching jobs and spend less time (hours) for domestic purposes which tends to increase the earnings of the divorcee.

The theoretical relationship between education and earnings is positively related, so the study expects a positive relationship between education and earnings of the divorcee all other things being equal. Because the higher the divorcee level of education the higher their earnings since very good paid (salary) jobs needs a very high skilled labour such as doctors, nurses, accountants e.t.c.

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The number of children possessed by the divorced is expected to be ambiguous but the sign depends on gender. In line with the divorced males, the number of children they stay with is expected to be negatively related to their earnings all other things being equal. Especially in a case where the children are below eighteen years the divorced males have to sacrifice some of



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the labour market hours of worked for domestic production and tends to adversely affect their earnings. However, in the case of divorced females the number of children they stay with is expected to be positively related to their earnings all other things being equal. The reason is that females are well- known for domestic production so in the midst of divorce the benefit they used to get from the husband is seized and in order for the divorced females take proper care of their children, they supply more labour to improve their earnings to meet the needs of their children.

Theoretically, all other things being equal, consumer debt accumulation puts both the divorced females and males on their toes to work for more money or increase their earnings ability to aid them settle all debts. Therefore the study expects a positive relationship between consumer debt accumulation and their earnings in the labour market.

### The Employment Equation

$$EMP_j = f(E, FS, EDU) \dots \dots \dots (b)$$

where employment is represented by and measured in hours worked,

FS=Family Size

and where E, EDU and j are already defined.

A priori signs for the implied employment regression coefficients are as follows;

Theoretically, there is a positive relationship between earnings/wages and employment (hours of work). The study therefore expects a positive sign for the earnings variable in the employment equation all other things being equal. This is because under the concept of efficiency of labour



earnings or wages serves as incentives for the divorcee to supply more labour or increase the number of hours worked.

Theoretically, the relationship between education and employment (number of hours work) is Ushape as postulated by Adams Smith (1960). Illiterates or no education of the divorcee supply more labour due to lower cost of participation, but at some level of education (Basic and SHS) cost of participation increases but since at that level there is no specialization with increasing cost of participation, employers will cut down cost by employing less whereas at higher levels of education specialization is achieved so irrespective of the cost of participation employers will still employ them because their services are highly in need for example Surgeons, Accountants, Lecturers e.t.c. Therefore the study expects an ambiguous sign for education in the employment equation all other things being equal.

All other things being equal, the family size of the divorcee expected sign is ambiguous but the sign depends on the gender. Since the males are already in the labour market the family size of the divorced males' will limit the number of hours work since the males has to trade-off the available hours between domestic work and the labour market. Therefore the study expects a negative relationship between the family size of the divorced males and employment in the labour market. The family size of the divorced females will motivate them to work for more hours in order to take care of their y. On that note the study expects a positive relationship between the family size of the divorced females and employment.

In all six (6) regressions are estimated, three each for the earnings and employment equations.

The Ordinary Least Squares (OLS) method is used to estimate the two main regression equations

### 3.1.2. THE MARITAL INSTABILITY (DIVORCED) REGRESSION MODEL

Probit model has come into a fairly wide used as a framework for analyzing responses that comprises dummy or binary responses (Beggs, Cardell and Hausman, 1981) since marital



instability (i.e. divorce) is coded as a binary, the probit approach is used for estimating the regression function in equation 1 below,

The probit model for marital instability (divorce) is presented as follows in general as

$$\Pr(Y_g = 1) = \Phi(\beta_0 + \beta_1 \text{Economic factors} + \beta_2 \text{Demographic factors})$$

Where the economic factors include; monthly earnings, consumer debt accumulation, employment and physical assets. The demographic factors comprise educational level, age at marriage and children (dummy). The 'Y' represent divorce person where g represent gender for both male and female.

The Specific marital instability model is given as

$$\Pr(Y_g = 1 | I, CDA, EMP, AS, EDU, AgeM, DCHN) = \Phi(\beta_0 + \beta_1 I + \beta_2 CDA + \beta_3 EMP + \beta_4 AS + \beta_5 EDU + \beta_6 AgeM + \beta_7 DCHN + \epsilon)$$

$Y_g$  = Qualitative dependent variable (Divorce dummy):  $Y_g$  if the person answered yes to the divorce question and 0 if a person answered no.

$\Phi$  is the cumulative standard normal-distribution function.

$I$  = is a dummy of Relative monthly earnings. It assumes the value of 1 if the divorced person receives relatively higher income than the partner and the value of zero (0) if the divorced person do not receives relatively higher income than the partner

$EMP$  = Employment (Number of hours spent at work)

$AS$  = Physical Assets Dummy (= 1 if they have acquired any physical assets, and =0 otherwise)

$CDA$  = Consumer debt accumulation (dummy if they have accumulated debt=1 and if no=0)

$AgeM$  = Age at marriage

$EDU$  = Education level (Number of years spent on education)



DCHN= Children (dummy) assumes values = for divorcee having children and no children respectively.

e = represent the disturbance term.

For the purposes of investigating whether economic variables cause marital instability, restrictions were imposed on the marital instability model by taking into account the economic factors for both sex (female and male). The Literatures on the dependent theory and specialization hypothesis have proven that economic activities for female couples influence divorce whiles male economic activities minimize divorce. The restriction is to look at the economic variables (i.e. relative income, Consumer debt accumulation, employment and assets) and their impact on divorce whether they were statistically different from each other by using the likelihood test.

The assumption of the first parametric restriction states that, there is equality between the variables of Relative monthly earnings (PI) and Consumer debt accumulation ( $\beta_2$ ). Thus ( $\beta_1 = \beta_2$ )

(as against  $(\beta_1 - \beta_2) = 0$ ). The restriction implies that, the impact of the relative earnings and the consumer debt accumulation on divorce is the same. However if the restriction is imposed on equation 1, it collapses to equation two;

$$\Pr(Y_{g=1}, CDA, EMP, AS, EDU, AgeM, DCHN.) = (\beta_0 + \beta_1(1+CDA) + \beta_2EMP + \beta_3AS + \beta_4EDU + \beta_5AgeM + \beta_6DCHN + e) \quad (2)$$

The assumption of the second parametric restriction is such that, there is equality between the variables of Relative monthly earnings (PI) and Employment ( $\beta_3$ ). Thus  $(\beta_1 - \beta_3) = 0$  (as against  $(\beta_1 - \beta_3) = 0$ ). The restriction implies that the impact of relative earning and

employment on divorce is the same. So when the restriction is imposed on equation 1, it collapses to equation three;

$$\Pr(Y_{g=11}, CDA, EMP, AS, EDU, AgeM, DCHN.) = (\beta_0 + \beta_1(1+EMP) + \beta_2CDA + \beta_3AS + \beta_4EDU + \beta_5AgeM + \beta_6DCHN + e) \text{ ----- (3)}$$

The assumption of the third parametric restriction is such that, there is equality between the variables of Relative monthly earnings (PI) and Assets (04). Thus  $(\beta_1 - \beta_4) = 0$  (as against  $(\beta_1 - \beta_4) = 0$ ).

The restriction implies the impact of relative earning and physical assets on

is the same. So when the restriction is imposed on equation 1, it collapses to equation four;

$$\Pr(Y_{g=11}, CDA, EMP, AS, EDU, AgeM, DCHN.) = (\beta_0 + \beta_1(1+AS) + \beta_2CDA + \beta_3EMP + \beta_4EDU + \beta_5AgeM + \beta_6DCHN + e) \text{ ----- (4)}$$

The assumption of the fourth parametric restriction is such that, there is equality between the variables of Consumer debt accumulation (132) and Employment (03). Thus  $(\beta_2 - \beta_3) = 0$  (as against  $(\beta_2 - \beta_3) = 0$ ). The restriction implies that, the impact of Consumer debt

accumulation and Employment on divorce is the same. So when the restriction is imposed on equation 1, it collapses to equation five;

$$\Pr(Y_{g=11}, CDA, EMP, AS, EDU, AgeM, DCHN.) = (\beta_0 + \beta_1(1+CDA+EMP) + \beta_2AS + \beta_3EDU + \beta_4AgeM + \beta_5DCHN + e) \text{ ----- (5)}$$



$$P4EDU + P5AgeM + DCHN + E) \text{-----} (5)$$

The assumption of the fifth parametric restriction is such that, there is equality between the variables of Consumer debt accumulation (P2) and Assets (134). Thus (P2= P4) or (1)2- P4) (as against ((32- 134) = 5=0). The restriction implies that the impact of Consumer debt accumulation and physical assets on divorce is the same. So when the restriction is imposed on model 1, it collapses to equation six;

$$\Pr (Y_g = 1, CDA, EMP, AS, EDU, AgeM, DCHN.) = (PO + 1 + (CDA - FAS) + 133 EMP + P4EDU + \beta_5 AgeM + P6DCHN + E) \text{-----} (6)$$

The assumption of the sixth parametric restriction is such that, there is equality between the variables of Employment (P3) and Assets ( $\beta_4$ ). Thus ( $\beta_3 = P_4$ ) or ( $133 - P_4 = 0$ ) (as against ( $\beta_3 - \beta_4 = 0$ )). The restriction implies that the impact of employment and physical assets on divorce is the same. So when the restriction is imposed on equation 1, it collapses to equation seven;

$$\Pr (Y_g = 1, CDA, EMP, AS, EDU, AgeM, DCHN.) = (PO + 131 + CDA + (EMP + AS) + P4EDU + P5AgeM + 136 DCHN + e) \text{-----} (7)$$

The likelihood ratio test statistic is calculated as  $2(\ln l_{ur} - \ln l_r)$  which follows the chi-square distribution.

Where  $\ln l_{ur}$  is the log likelihood of the unrestricted regression and  $\ln l_r$  is the log likelihood of the restricted regression.

Expected a Priori Signs

For a priori expectation of the signs of the probit model for marital instability are as follows;

In the probit model, the research expects the relative higher income earnings (I) on the part of female couples to be positively related to divorce qualitative dependent variable but on the part of male couples-the relative higher income earnings is expected to be negatively related to divorce.

This is because higher income levels on the part of male helps them to control their families and better play their role as the bread winner of the families but on the part of females it makes them self-reliance and reduce their dependence on their husband.





Consumer debt accumulation (CDA) as utility bills, rent fees, owing one another and many others are expected to be positively related to marital instability (divorce). This means that accumulating a lot of consumer debts by couples are more likely to contribute to marital conflicts that sometimes lead to divorce.

Women's employment status (EMP) expectation to marital instability (divorce) is ambiguous based on the literatures reviews earlier, so it could be positive or negative depending on the data whereas men employment (EMP) status is expected to be negatively related to marital instability (divorce). Since many erudite have postulated that employment status of women make them

more easier for them to leave their marriage whenever conflict arises. However other scholars also argue that it serves as a supportive mechanism to the family.

But the employment status of the men helps them to control their family both economically and financially and therefore solidifies their

assets such as buildings, cars etc. Most marriages and therefore minimize divorce. The physical assets (AS) variable such houses, cars e.t.c owned, is expected to be negatively related to marital instability (divorce) for both males and females.

Education variable (EDU) for both males and females are expected to move in direction towards marital instability as compared with the uneducated sex. The Educational attainment could either serve as a measure of earning ability or measure of skills for bargaining in solving disputation within marriages. This implies that education variable is expected to be negatively related to marital instability for both males and females.

Age at marriage (AgeM) among couples is expected to be positively related to marital instability (divorce) if the average age of the couple falls within the teens or and thirties rather than the



twenties. Also if the average age of the couples falls within twenties rather than the teen or and the thirties age then, it is expected to be negatively related to marital instability. In addition, women who marry at a very young or late age are also more likely to get divorced or separated (Bramlett and Mosher, 2002).

Children variable (DCHN) for both males and females is expected to be negatively related to marital instability this is because traditionally children are seen as a gift that comes out of every marriage in a form of blessings which binds the couples together emotionally and spiritually.

### 3.2 THE METHODOLOGY

The methodology of the study takes into accounts the population, data source, collection; sample size sampling method and data analysis but the latter include the background of the study area.

#### 3.2.1 POPULATION

The population of the study comprised of the proportion of divorcees in the Kwabre East district. The Kwabre East district has a total population of 115,556. Out of the 115,556 peoples in the district, 55,106 were males and 60,450 were females. The population of the study consisted of both males and females divorcees. The divorced peoples were chosen because they were in the position to provide the necessary information regarding the objective of the study. The divorced persons were identified through the marriage registry and counseling department in the District Assembly. Based on the divorced cases that come to their outfit every month and the entire population of the district, 210 divorced females and 190 divorced males were sampled.



### 3.2.2 DATA SOURCE, COLLECTION AND SAMPLING METHOD

Primary (cross-sectional) data was collected for the analyses of the labour market equations for earnings/employment equations and the probit model for the marital instability function. The data was obtained on divorced couples or marriages pending for divorce in the Kwabre East District. The cross-sectional data source was obtained on all the variables used in the estimation of the two equations in the labour market i.e. earnings and the employment equations as well as in the estimation of the marital instability function. Therefore the variables of earnings, employment, number of children, family size, consumer debt accumulation, physical assets (houses, cars e.t.c) e.t.c were all primary source of data across household of divorced persons.

The data was obtained through a structured questionnaires and a face- to- face interviews. In the survey, closed-ended questionnaires were used to interview the divorcee or those seeking for divorce to choose from. The questionnaire was used for the interviews. The interviews were conducted around the first and the last research objectives of the study; the motive was to obtain as much information as possible for the study. The information varied from one divorcee to the other and also varied from gender differencing, -

The sample size obtained for the study was determined based on the sample size calculator, the cost of data collection, and the need to have sufficient statistical power. The research study covered a sample size of 400 divorce cases in the Kwabre East district. Out of the 400 sample size, 210 were divorced females and 190 were divorced males. For the purpose of this study, non-probability sampling was used. The non-probability sampling method used for the study was purposive sampling. For this sampling method, not all the divorced persons or persons whose marriages were pending for divorce in the district had the chance of responding to the questionnaires



but the study identified the respondents through the marriage registry department in the district. This enabled the easy access to information of divorce cases that comes to the registry department.

### 3.2.3 DATA ANALYSIS

In relation to the used of primary data for estimation, STATA 11.2 version was used to estimate the regression results for the two conceptual models discussed earlier. STATA software is very good in analyzing primary or cross-sectional data and panel data.

The earnings as well as the employment equations in the labour market are estimated by the used of Ordinary Least Squares (OLS) method. The OLS is evaluated or analyze with both p-values and the student t-values for the purpose of statistical significant of the explanatory variables to the two equations (i.e. earnings and employment equations).

The probit model was used for the determinants of the marital instability function and both p-values and z-values were used to evaluate the statistical significant of the regressors to the function. But the latter that take into accounts the interactions between the economic variables in the probit model for the marital instability function was evaluated by the used of Likelihood Ratio test since it involves restrictions.

### 3.3 BACKGROUND OF THE STUDY AREA

Kwabre East District was carved out of the former Kwabre Sekyere District in 1988, is located almost in the central portion of the Ashanti region. It is within latitudes 6° 44' North and longitudes 1° 33' to 1° 44' West. The District shares common boundaries with Afigya Sekyere District to the North; Kumasi Metropolitan Area to the South; Ejisu Juaben Municipal to the Southeast; Atwima District to the West and Offinso Municipal to the Northwest. The District has a total land area of



246.8 square kilometres constituting about 1.01% of the total land area of Ashanti Region. Kwabre East District is part of the greater Kumasi City region, which is made up of Kumasi Metropolitan Area and the surrounding Districts. The District capital, Mamponteng, is approximately 14.5 kilometres from Kumasi to the north east. There are 86 settlements, administered under 3 paramountcies, 2 parliamentary constituencies, 11 Area Councils and 42 District electoral areas. The district has the following economic activities wood carving which is popularly known as "Akuaba" Making, Kente weaving and selling at Bonwire and the other suburb areas like Kasaam, Ntonso and Adanwomaso, "Adinkra" making and selling at Ntonso and some formal jobs including both the government and private jobs are highly dominated in the district capital (Mamponteng).



## CHAPTER FOUR

### EMPIRICAL RESULTS AND ANALYSIS

As stated much earlier, the computer package Stata 11.2 was used to analyze data obtained on 400 divorced persons in the sampled population in both descriptive statistics and quantitative aspects. The Ordinary Least Square (OLS) regression was used to determine the determinants of the earnings and the employment equations for the divorced persons. Probit regression estimates were used to find out the consequence of relative income, employment status, consumer debt accumulation, assets, age at marriage, education and child bearing on marital instability (divorce) for both sexes (male and female).

For orderly presentation, the chapter is divided into two main sections, namely descriptive and quantitative (i.e. parametric) analyses. The latter includes the results of the interactions



(restrictions) of the economic variables on the marital instability function and analyses of the various hypothesis tested.

#### 4.1 DESCRIPTIVE STATISTICAL ANALYSIS

The table 4.1 provides a summary statistics of the economic and demographic characteristics of the female respondents in the study area. The table showed that, there were 210 divorced female sampled for The mea-Tăyăfñarriage for the divorced female was 31.6 years with the minimum age at marriage of 18 years old and the maximum of 52 years old. The educational level (number of years) for female divorced ranged between 0 (no education) and 24 years (tertiary). The mean (average) number of years spent on education for female divorced sampled was 14.3 years (Senior High School).

Table 4.1: Descriptive Statistics of Variables for Divorced Females.

Variables	Observation	Mean	Standard Deviation	Minimum	Maximum
Age at Marriage					
(AgeM)	210	31.55714	7.408715	18	52
Education (EDU)	210	14.32381	6.71497		24
Monthly earnings (E)	210	448.9762	183.7033	45	1200
Number of Hours					
worked (EMP)	210	7.838095	1.830752	4	9



<b>Number of children</b>					
(CHN)	210	4.12381	1.302888	1	7
Family size (FS)	210	5.12381	1.302888	2	8
Divorced Females who receive relatively higher income than her partner (I)	210	0.77	0.4213595	0	1
Physical Assets (AS) 210	210	0.7525	0.4321001	0	1
<b>Consumer debt</b>					
Accumulation (CDA)	210	0.855	0.35255418	0	1

Children dummy

(DCHN)	210	0.91	0.286540	0	1
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Concerning the income levels of divorced females, the minimum income was GH¢ 45.00 and the maximum income was GH g 1200.00 with the average income being GH¢448.98. The number of hours worked (employment) for the divorced females sampled ranged between 4 hours and 9 hours with the average working hours of 7.8.

The minimum number of children for the divorced females was one (1) and a maximum of 7 children with an average number of children to be 4 children. The divorced females have an average family size to be 5 with a minimum family size of 2 and a maximum family size of 8. From table 4.1, 77% of the females respondents answered yes to the question that, they receive relatively higher income than their partners while 23% do not, 85.5% of the respondents were having accumulated debt while 14.5% were not, 75.25% of the respondents acquired physical assets with their partner while 24.75% did not.



The table 4.2 provides a summary statistics of economic and demographic characteristics of the males respondents in the study area. The table showed that there were 190 divorce males that were sampled for the study. The mean age at marriage for the divorced male was 31.8 years with the minimum age at marriage of 18 years old and the maximum of 52 years old. The educational level (number of years) for the divorced males ranged between 0 (no education) and 24 years (tertiary). The mean (average) number of years spent on education for the divorced males sampled was 14.4 years (Senior High School).

The average monthly earning of the divorced males was GHc 445.42 with the minimum monthly earnings of GHc 45.00 and the maximum monthly earnings of GHc 1200.00. The average number of hours worked was 7.8 hours with the minimum hours worked of 4 hours and the maximum of 9 hours.

Table 4.2: Descriptive Statistics of Variables for Divorced Males

Variables	Observation	Mean	Standard Deviation	Minimum	Maximum
Age at Marriage					
(AgeM)	190	31.76316	7.556609	18	52
Education (EDU	190	14.40526	6.627582	0	24
Monthly earnings (E)	190	445.4211	188.7843	45	1200
Number of Hours					
Worked (EMP)	190	7.884211	1.859414	4	9
Number of children					



(CHN)					
Family size (FS)	190	4.542105	1.821627	2	10
Divorced males who receive relatively higher income than her partner (I)	190	0.770.4213595			
Physical Assets (AS)	190	0.7525	0.4321001	0	1
Consumer debt					
(CDA)	190	0.855	0.35255418	0	1
Accumulation (CDA)					
Children dummy					
(DCHN)	190	0.91	0.286540	0	1

T-heminimum number of children for the divorced males was one (l) and the maximum of 9 children with an average number of children to be 4 children. The divorced males have an average family size to be 5 with a minimum family size of 2 and a maximum family size of 10.

From table 4.2, 77% of the males respondents answered yes to the question that, they receive relatively higher income than their partners while 23% do not, 85.5% of the respondents were having accumulated debt while 14.5% were not, 75.25% of the respondents acquired physical assets with their partners while 24.75% did not.

## 4.2 QUANTITATIVE PARAMETRIC RESULTS AND ANALYSIS

### 4.2.1 THE OLS REGRESSION RESULTS OF THE EARNINGS AND EMPLOYMENT EQUATIONS

The regression results for the earnings and the employment equations are presented in tables 4.3, 4.4 respectively.

In table 4.3, the overall model is statistically significant at 5% significance level with the F-value (Prob > F) of 0.0000 less than 0.05 for both the combined data and the separate data for divorced males and females. Almost all the explanatory variables in the earnings equation are statistically significant at 5% and 1% significance level except consumer debt which is neither statistically significant at 5% significance level nor 10%.

About 66.28% of the the explanatory variables including age at marriage, education, number of children and consumer debt accumulation explained the variation in the earnings equation for males.—Also about 65.32% of the variation in the earnings equation by the females is explained by the regressors of age at marriage, education, number of children and consumer debt accumulation.



Table 4.3: Earnings Regressions for the Divorce Persons

VARIABLES	MALES	FEMALES	COMBINED
Age at Marriage (AgeM)	5.774096***	5.579206***	5.900945***
	(1.560154)	(1.46325)	(1.018993)
Education (EDU)	13.6116***	14.03422***	13.52697***
	(1.786167)	(1.58259)	(1.14388)
Number of Children (CHÑ)	-0.543153***	1.3307166***	*
	(0.0498554)	(0.353914)	(0.0575381)
Consumer debt -17.14016 18.39132 0.6531714 accumulation (CDA)			(23.70413)
	(21.74275)	(15.40807)	
R-squared	66.2803	65.3167	77.3104
Number of observation	190	210	400
F-value (prob>F)	0.0000	0.0000	0.0000

**Note:** Standard errors are presented in parentheses. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1% level, respectively.

In the combined data model for earnings of the divorcee, about 77.31% of the explanatory variables explain the variation in the earnings equation.

In the estimated\_garnings equation, age at marriage is statistically significant at both 5% and 1% significance for both Ivorced males and females. Age at marriage for divorced males exhibited a significant positive impact on the earnings equation with an impact of 5.774096. Also age at marriage for divorced females was positively related to the earnings equation with an impact of 5.579206. From the combined data, age at marriage exhibited a significant positive impact on the earnings equation by 5.900945. This implies that as age at marriage increases, it tends to increase earnings since the individual spent less time in the house due to no or less responsibility at home



but spent the majority of the time working. The devotion to work all time aid them earn more and assist them to prepare towards their marriage ceremonies.

Education as a variable for divorced males and females is statistically significant at both 5% and 1% significance level. The education level for both divorced males and females exhibited a positive significant impact on the earnings equation. The positive impact of education on the earnings equation for the females was relatively greater than the males' education impact on the earnings equation with the coefficient value of 14.03422 and 13.6116 for females and males respectively. The reason was that, more divorced females' attained higher levels of education more than the divorced males sampled.

The number of children variable of the divorced males exhibited a negative significant impact on the earnings equation where as the number of children variable for the divorced females exhibited a positive impact on the earnings (wage) equation. The number of children as a variable for both males and females was statistically significant at both 5% and 1% significance level. The negative impact of the number of children owned by the divorced males on the earnings equation implies that, as the number of children possessed by them gets larger and larger their earnings reduce because now the divorced males have to trade-off their available time/hours between domestic production and market production. This in effect reduces the earnings of the divorced males, since traditionally males are the bread-winners in the labour market.

Also the positive impact of the number of children owned by divorced females on the earnings equation implies that as the number of children for the divorced females gets larger and larger their earnings tends to increase. This is because the benefits that the females were getting during the period of marriage is seized, so in order to enable the divorced females to cater for the children, they have to supply more labour and this increase their earnings.

From the combined data, the number of children exhibited a positive significant impact on the earnings equation with a coefficient value of 1.293596. The positive impact of the number of



children variable from the combined data implies that as the number of children of the divorced persons increases, the divorced persons tend to supply more labour in order to increase their earnings to cater for the children.

Table 4.4, provides the result of the employment regression for the divorced persons.

The overall model was statistically significant at 5% significance level with the F-value (Prob > F) of 0.0000 less than 0.05. About 64.12% of the explanatory variables including the earnings, family size and education explain the variation in the number of hours worked for males (labour supply). Also about 65.10% of the variation in the number of hours worked by the females is explained by the regressors of monthly earnings, family size and education. In the combined data of the model, about 77.01% of the independent variables explain the variations in employment (number of hoursworked) equation.

Table 4.4: Employment Regressions for the Divorce Persons

VARIABLES	MALES	FEMALE	COMBINED
Monthly Earnings (E)	0 .003528*** (0.0007707) -0. 0123128***	0.0033748*** (0.0007679) 0.077614***	0.0035351 (0.0005471)
Family Size (FS)	(0.00703278)	(0.00927769)	(0.0128099)
Education (EDU)	0.0097391*** (0 .0021961 1)	0. 0129036*** (0.00210186)	0.056748*** 0. 0100504*** (0.00149578)
R-squared		65.1046	77.0140
Number of observation	190	210	400
F-value (prob>F)	0.0000	0.0000	0.0000



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Note: Standard errors are presented in parentheses. \* \*\*, and \*\*\* denote significance at the 10%, 5% and 1% level, respectively.

The earnings for male and female divorced exhibited a positive significant impact on the employment equation. The earnings of the divorced males and females were statistically significant at both 5% and 1 % significance level. But the positive impact of the earnings of the divorced males on the employment equation was relatively greater than the case of females' earnings.

The impact of males' earnings on the number of hours worked was 0.003528 and the females earnings on the employment equation was 0.0033748. This positive impact implies that as earnings increase, both males and females are motivated to increase the number of hours worked by 0.003528 and 0.0033748 respectively. This therefore implies that as earnings/wages increase, both males and females increase their participation in the labour force by increasing the hours worked. The finding is consistent with Cameron et al (2001) study and argued that higher potential earnings increase the marginal utility of working and in this way makes work for wages more attractive.

Also from the combined data of both divorced males and females, the expected sign of the earnings model was achieved with a positive value of 0.0035351. This means that a unit increase in the earnings of the divorced persons lead to an increase in the number of working hours by 0.0035351. The impact of the increase in the earnings of the divorced triggers an increase in the supply of labour through the number of hours worked, but the impact of the earnings on the employment equation was not great because the average earnings of the divorced was low. This implies that as the earnings of the divorced person increases, it serves as an incentive for the labour to increase the number of hours worked.



The family Size of the divorced males exhibited a negative significant impact on the number of hours worked where as the family size of the divorced females exhibited a positive impact on the employment equation. The family Size as a variable for both males and females was statistically significant at both 5% and 1% significance level. The negative impact of the family size owned by the divorced males on the employment equation implies that as the family size of the divorced males gets larger and larger the number of hours worked reduces because the divorced males have to trade-off their time/hours worked between domestic production and the market production. This—in effect reduces the number of hours worked by the divorced males since traditionally they are the bread-winners towards the market production.

Also the positive impact of the size of family owned by divorced females on the employment (number of hours worked) equation implies that as the family size of the divorced females get larger and larger the number of hours worked tends to increase. This is because the benefits that the females were getting during the period of marriage is seized, so the eagerness and the nobleness for the divorced females to cater for the family will persuade them to supply more labour by increasing their number of hours worked.

In the combined data, the family size of the divorcee is positively related to the employment equation. This implies that as the family size of the divorced persons gets larger and larger, the divorced persons tend to increase the number of hours worked by 0.056748 in order to cater for their respective family since the benefits they enjoyed as couple during the period of marriage has seized or interrupted by divorced. This tends to increase labour supply through the number of hours worked.

Education as a variable for divorced males is statistically significant at both 5% and 1% significance level for both divorced males and females. The education level for both divorced males and females exhibited a positive significant impact on the number of hours worked. The positive impact of education on the employment equation for males was relatively smaller than the females' education



with the coefficient value of 0.0097391 and 0.0129036 for both males and females respectively. Although education level for both males and females exhibited a positive impact on the employment but the majority of the sampling population educational level attainment was between basic and senior high. Only few of the sampled population attained tertiary implies that lower level of education goes with lower level of employment. The finding is consistent with the postulation done by Adam Smith (1960) and Cæon et al (2001). They argued that the relationship between education and labour force participation (LFP) is U-shaped across years of education. Thus the labour force participation rates were found to be high for illiterate persons, lower for educated people at the primary and secondary level and higher for college graduates (tertiary).

Also in the combined data, education as a variable was positively related to the employment (number of hours worked) equation. This implies that higher educational status for the divorcee leads to higher levels of employment by supplying more hours of work in the labour market.

#### 4.2.2 RESULTS OF THE PROBIT MODEL FOR THE MARITAL INSTABILITY REGRESSION.

The table 4.5 presents the analysis of the probit regression results of marital instability function for females. The results presented in Table 4.5, with divorced females as the dependent variable; almost all the independent variables were significant at 5% significance level except consumer debt accumulation. From the results the coefficients of all the economic factors had a greater probability values than the demographic factors.

Also all the demographic factors were significant at 5% significance level which implies that all the demographic factors have a significant impact on divorce. From the results provided in Table 4.5, the coefficients of the economic factors have greater magnitude or values than the demographic factors.



Since the overall regression for females is statistically significant at the F-value (Prob> chi2) of 0.0000, then the regression vehemently embraces the hypothesis that economic factors of females influences divorce more than their demographic features at 5% significance level.

Table 4.5: The Probit Regression Results for Marital Instability (Divorce) for Females

Explanatory Variable.	Coefficient	Standard Error	P-Value	Z-Value
Constant	3.161318	0.604365	0.000	5.23
<u>Economic Factors</u>				
Relative Income (I)	0.336654	0.1999834	0.043	1.69
Consumer Debt accumulation (CDA)	-0.2968201	0.1652972	0.070	-1.80
Employment (EMP)	-0.3108047	0.0540641	0.000	-5.75
Physical Assets(AS)	0.3923558	0.1997843	0.050	1.98
<u>Demographic Factors</u>				
Age at Marriage (AgeM)	0.0641587	0.010330	0.000	6.21
Education (EDU)	0.027956	0.0112815	0.013	2.48
Children (DCHN)	-0.6729555	0.2415261	0.005	-2.79
F-value (prob> chi2) = 0.0000		R -0.2221		

Also about 22.21% of the regressors or the independents variables (economic and the demographic variables) explain the marital instability encountered by females.

From the results with regards to the economic factors, females that receive relatively higher income (treatment group) than their males' counterparts were statistically significant at 5% significance level which also is positive expected sign. The two variables (relative income and divorce)



moves in the same direction with the coefficient value of 0.336654, which implies that as female couples receive relatively higher income than their husbands (male counterpart) then the probability of such marriages becoming unstable is 0.336654 as compared with those females couples who do not receive relatively higher income than their partner (control group).

The result of the relative income of females relationship with divorce is similar to a study conducted by Becker, Landes and Michael (1977) dependency theory which showed that, the major gain to get married lies in the mutual dependence of spouses, which arises out of their differentiated roles: where the husband specializes in breadwinning and the wife in domestic production (and reproduction), therefore whenever a wife's resources compare more favorably with those of her husband, specialization decreases and hence the rate of marital disruption increases. The result is also consistent with the work of Poortman and Kalmijn (2002) independence and the specialization theory which also revealed that higher earnings for women make it easier for them to leave a marriage because they are able to support themselves.

Also the expected sign of the consumer debt accumulation variable was attained with a positive coefficient value of 0.3923558. The test of the variable (consumer debt accumulation) was also significant at 5% significance level as shown in table 2 which therefore implies that female couples who accumulated a lot of debt are far more likely to encounter divorce with the probability value of 0.3923558 as compared with the control group (those frequently settling their debt). The result is consistent with the research done by University of Virginia in collaboration with the National marriage in America which showed that Consumer debt fuels a sense of financial unease among couples, and increases the likelihood that they will fight over money matters; moreover, this financial unease casts a pall over marriages in general, raising the likelihood that couples would argued over issues other than money and decreasing the time they spend with one another.

Table 4.5 also shows that employment and assets have a negative relationship with divorce with a coefficient value of -0.3108047 and -0.2968201 respectively. Employment is statistically



significant at 5% significance level since it is associated with a p-value which is below 0.05 but the asset is not statistically significant because its associated p-value is greater than 0.05. The employment and the assets variables for female minimize the rate of divorce and calls for stability. Even though assets was not statistically significant at 5% significance level but the result for the sign of assets was also consistent to the research work done by University of Virginia in collaboration with the National marriage in America which also revealed that Assets decrease the likelihood of divorce, but interestingly hypothesized that; the protective power of assets only works for wives, and for two reasons. First, wives with more assets are happier in their marriages and, as a consequence, are less likely to seek a divorce. Secondly, assets make wives more reluctant to pursue a divorce because they realize that their standard of living would fall markedly after a divorce

Considering also the demographic factors, age at marriage was statistically significant at 5% significance level with the coefficient value of 0.0641587 and the expected sign was positive since the majority of the females got married very late with average age of 31.3 years which tend to trigger divorce irrespective of gender.

In Table 4.5, the coefficient of education as a regressor was also statistically significant at 5% significance level with a coefficient value of 0.027956. From the results education had a positive expected sign which implied that a well educated woman or female who spent more years on education are more likely to encounter divorce with a probability values of 0.027956 than those who spent less or no years in school or education.

Children as a variable in the regression was also significant at 5% significance level with the probability value of -0.6729555 and a negative expected sign was attained because child bearing for marriage couples solidifies the relationship and minimize divorce, which was also similar to the findings obtained by Osiki (2000) work, which highlighted that childlessness were the cause



for most marital instability, given the societal expectation and cultural values in the Nigerian context.

Table 4.6: The Probit Regression Results for Marital Instability (Divorce) for Males

Explanatory Variable.	Coefficient	Standard Error	P-Value	Z-Value
Constant	-3.183488	0.6073639	0.000	-5.24

Economic Factors

Relative				Income (I)	-0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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Employment (EMP)	0.0545897	-0.3188996	0.05	0.000	-5.84
Physical Assets (AS)		-0.2892254	0.1659495	0.081	- 1.74

Demographic Factors

Age at Marriage (AgeM)

Demographic Factors				
Age at Marriage (AgeM)	0.064768	0.0103781	0.000	6.24
Education (EDU)	-0.025408	0.0113656	0.025	-2.24
Children (DCHN)	-0.6741994	0.2418916	0.005	-2.79
F-value (prob> chi2) = 0.0000			pseudo R <sup>2</sup> = 0.2267	

F-value (prob> ch12)

The Probit regression results in Table 4.6, with divorced males as the dependent variable, almost all the independent variables were significant at 5% significance level except assets. This means that all the economic factors had a greater impact on the probability that the economic factors of males minimize divorce in the sampled population except assets which has no or little impact on the probability that men would minimize divorce in the sampled population. Also all the



demographic factors were significant at 5% significance level and therefore imply that, the demographic factors have a significant impact on divorce.

From the table 4.6, the coefficients of the economic factors have a greater magnitude or values (impacts) than the demographic factors.

Since the overall regression for the test was statistically significant at the F-value ( $\text{prob} > \chi^2$ ) of 0.0000 then the regression vehemently cuddles the hypothesis that economic factors of male minimize divorce more than their demographic features at 5% significance level. Also about 22.67% of the regressors or the independents variables (economic and the demographic variables) explained the marital instability function for the males.

From the results with regards to the economic factors, males that receives relatively higher income (treatment group) than their females counterparts were statistically significant at 5% significance level, which also met the negative expected sign meaning that the two variables (relative income and divorce) moves in an opposite direction with the coefficient value of -0.4653855, which implies th3t-as-maie-couples receive relatively higher income than their wives (counterparts) then the probability of such marriages becoming stable are -0.4653855 as compared to male couples who do not receive relatively higher income than their partners (control group).

Also consumer debt accumulation expected sign was attained with a positive coefficient value of 0.3188996 and was also significant at 5% significance level, which therefore implies that male couples who accumulated a lot of debt are far more likely to encounter divorce with the probability value of 0.3188996 as compared to the control group (male couples with no debt).

The results above showed that employment and assets have a negative relationship with divorce, with a coefficient value of -0.3188996 and -0.2892254 respectively. Employment is statistically significant at 5% significance level since it is associated with a p-value (0.000) which is below 0.05 but asset is not statistically significant because its associated p-value (0.081) is greater than



0.05. The employment and assets variables for males minimize divorce and ensure a stable marriage. The results of the employment variable was also consistent with the work of Ausra Maslauskaitė et al (2011) in Lithuania which showed that Males with lower socio-economic status and lower prospects to fulfill the traditional breadwinner's role experience higher risks to end their marriage in divorce.

Considering also the demographic factors, age at marriage was statistically significant at 5% significance level with a coefficient value of 0.064768 and the expected sign was also positive since the majority of the males got married very late with average age of 31.3 years which tends to trigger divorce among them.

Education was also statistically significant at 5% significance level with a coefficient value of •0.025408. From the results, education had a negative expected sign which implied that a well educated man or male who spent more years on education are more likely to be free from divorce with a probability value of -0.025408 than those who spent less or no years on education. The result was also consistent with the Lehrer Evelyn L. (1988) study in USA which revealed that an



increase in husbands' education lowers the probability of marital instability but the impact was non-linear.

Children as a variable in the regression was also significant at 5% significance level with the probability value of -0.6741994 and a negative expected sign because child bearing for marriage couples solidifies the relationship and minimize divorce.

#### 4.3 FURTHER ANALYSIS AND HYPOTHESIS TESTS

The purpose of this section is to analyze the interactions due to the imposition of restrictions on the coefficients of the economic variables on marital instability function. The results of the hypotheses tested are also provided in this section.

##### 4.3.1 ECONOMIC VARIABLE INTERACTIONS (RESTRICTIONS) ON MARITAL INSTABILITY (DIVORCE) FOR FEMALES

Using the Likelihood ratio method to test for the parametric restrictions of the marital instability function yielded the results provided in Table 4.7; for divorced females.

The test results presented in Table 4.7 was to find out whether the coefficients of the economic parameters (Relative income=employment, consumer debt accumulation and assets) were statistically different from each other in terms of their impact on divorce or not.

Some of the selected hypotheses to be tested produced a P-value that was below 0.05 and others produce the p-value above 0.05 from the likelihood ratio test. The decision rule state that, do not



reject Ho in all cases when the p-value estimated is above 0.05 but if the p-value is below 0.05 then reject the Ho and accept HI.

From the likelihood ratio (LR) test the study revealed that the equality test for the female Probit model were all statistically different from zero except the parameter equality or restriction test between relative income earnings and assets 3) as well as the parametric equality test between consumer debt accumulation and assets (u• 5) which were statistically not different from zero.

Table 4.7 Likelihood Ratio (LR) Parametric Test Results for Divorced Females; the Economic variables Interactions

Hypothesis	Log likelihood restricted	Log likelihood for the ratio regression	Likelihood test regression	P-Value for the unrestricted statistic
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H <sub>0</sub> : (β <sub>1</sub> - β <sub>2</sub> )= α* <sub>1</sub> =0				
H <sub>1</sub> : (β <sub>1</sub> - β <sub>2</sub> )=α* <sub>1</sub> ≠0	-215.42418	-215.40301	0.04234	0.005
H <sub>0</sub> : (β <sub>1</sub> - β <sub>3</sub> )= α* <sub>2</sub> =0				
H <sub>1</sub> : (β <sub>1</sub> - β <sub>3</sub> ) =α* <sub>2</sub> ≠0	-221.27912	-215.40301	11.75222	0.000
H <sub>0</sub> : (β <sub>1</sub> - β <sub>4</sub> )= α* <sub>3</sub> =0				
H <sub>1</sub> : (β <sub>1</sub> - β <sub>4</sub> )= α* <sub>3</sub> ≠0	-219.17991	-215.40301	7.55362	0.978
H <sub>0</sub> : (β <sub>2</sub> - β <sub>3</sub> )= α* <sub>4</sub> =0				
H <sub>1</sub> : (β <sub>2</sub> - β <sub>3</sub> )= α* <sub>4</sub> ≠0	-221.70002	-215.40301	12.59402	0.000
H <sub>0</sub> : (β <sub>2</sub> - β <sub>4</sub> )= α* <sub>5</sub> =0				
H <sub>1</sub> : (β <sub>2</sub> - β <sub>4</sub> )= α* <sub>5</sub> ≠ 0	-219.00876	-215.40301	7.2115	0.899
H <sub>0</sub> : (β <sub>3</sub> - β <sub>4</sub> )= α* <sub>6</sub> =0				
Ho: (133-				
H <sub>1</sub> : (β <sub>3</sub> - β <sub>4</sub> )=α* <sub>6</sub> ≠0	-215.406	-215.40301	0.00672	0.000

HI: (133- 0.00672 0.000 The variables whose coefficients were statistically not different from each



other implies that the individual variable impact on divorce is the same in terms of its direction of movement and the magnitude, thus in the case of debt accumulation and assets (u• 5) for the female couples, the two variables compute for resources which implies that there is a trade-off effects between the two variables in terms of resources. Therefore in effect the smaller the debt accumulated the higher the assets building or accumulation and the reverse is true.

Also in line with the equality test between relative income earnings and assets building which were statistically not different from zero also insinuate that their impact or effect towards divorce was the same. The two variables conflict each other towards divorce since higher relative earnings on the part of females as compared to their husbands earnings tends to increase divorce cases but assets increases marital happiness and stability as revealed by both empirical and theoretical literatures but higher earnings or salary calls for more assets building. Thus the higher the relative earnings of females the higher the tendency that divorce would occur and also becomes independent of their husbands and acquire assets of their own.

The study further revealed that the parameters which were statistically different from zero means that the individual variable impact or effect was different from each other in terms of influencing divorce. Thus in the case of the parametric restriction test between the relative income earnings and consumer debt accumulation (a • 1) were statistically significant since the restriction has a pvalue of 0.005 less than 0.05 which therefore implies that, the restriction is not valid since the  $H_0$  is rejected meaning that the effects of the variables on divorce has a separate effect or impact on divorce. Also the parametric restriction test between the relative income earnings and employment (a • 2) is statistically significant since the restriction has a p-value less than 0.05 which therefore implies that the restriction is not valid since the  $H_0$  is rejected meaning that the effects of the variables on the rate of divorce has a separate effect or impact on divorce but not the same.

From Table 4.7, the parametric restriction test between consumer debt accumulation and employment (E•4) were statistically significant since the restriction has a p-value of 0.000 less



than 0.05 which therefore implies that the restriction is not valid since the  $H_0$  is rejected meaning that the effects of the variables on divorce has a separate effect or impact on divorce but not the same.

Lastly in Table 4.7 above the parametric restriction test between employment and Assets (ct•s) is statistically significant since the restriction has a p-value of 0.000 less than 0.05 which therefore implies that the restriction is not valid since the  $H_0$  is rejected meaning that the effects of the variables on divorce has a separate effect or impact on divorce but not the same.

#### 4.3.2 ECONOMIC VARIABLE INTERACTIONS (RESTRICTIONS) ON MARITAL INSTABILITY (DIVORCE) FOR MALES

Using the Likelihood ratio method to test for the parametric restrictions of the marital instability function yielded the results provided in Table 4.8; for divorced males.

The test results presented in Table 4.8 was to find out whether the coefficients of the economic parameters (Relative income, employment, consumer debt accumulation and assets) were statistically from eacFöi1ÉFGQÓms of their impact or effects on divorce or not.

Some—of the selected hypotheses to be tested produced a P-value that was below 0.05 and the others produced p-value above 0.05 from the likelihood ratio test. The decision rule states that do not reject  $H_0$  in all cases when the p-value estimated is above 0.05 but if the p-value is below 0.05 then reject the  $H_0$  and accept  $H_1$ .

From the likelihood ratio (LR) test the study revealed that the equality test for the male Probit model were all statistically different from zero except the parametric equality or restriction test between relative income earnings and assets (a'3) as well as the parametric equality test between consumer debt accumulation and assets (a• 5) which were statistically not different from zero.



Table 4.8: Likelihood Ratio (LR) Parametric Test Results for Divorced Males; the Economic variables Interactions

Hypothesis	Log likelihood (restricted r re ssion	Log likelihood (unrestricted re re ssion	Likelihood ratio test statistic	P-Value
$H_0: (\beta_1 - \beta_2) = \alpha^*_1 = 0$ $H_1: (\beta_1 - \beta_2) = \alpha^*_1 \neq 0$				
$H_0: (\beta_1 - \beta_3) = \alpha^*_2 = 0$	-213.57124	-213.52098	0.10052	0.001
$H_1: (\beta_1 - \beta_3) = \alpha^*_2 \neq 0$	-221.65691	-213.52098	16.27186	0.000
$H_0: (\beta_1 - \beta_4) = \alpha^*_3 = 0$	-218.64919	-213.52098	10.25642	0.646
$H_1: (\beta_1 - \beta_4) = \alpha^*_3 \neq 0$	-218.64919	-213.52098	10.25642	0.646
$H_0: (\beta_2 - \beta_3) = \alpha^*_4 = 0$	-219.69176	-213.52098	12.34156	0.000
$H_1: (\beta_2 - \beta_3) = \alpha^*_4 \neq 0$	-219.69176	-213.52098	12.34156	0.000
$H_0: (\beta_2 - \beta_4) = \alpha^*_5 = 0$	-216.87382	-213.52098	6.7056	0.894
$H_1: (\beta_2 - \beta_4) = \alpha^*_5 \neq 0$	-216.87382	-213.52098	6.7056	0.894
$H_0: (\beta_3 - \beta_4) = \alpha^*_6 = 0$	-213.536	-213.52098	0.03004	0.000
$H_1: (\beta_3 - \beta_4) = \alpha^*_6 \neq 0$	-213.536	-213.52098	0.03004	0.000

The variables whose coefficients are statistically not different from each other implies that the individual variable impact on divorce is the same in terms of its direction of movement and the magnitude, thus in the case of debt accumulation and assets (u • 5) for the male couples, the two variables compute for resources which implies that there is a trade-off effects between the two variables in terms of resources.

Therefore in effect the smaller the debt accumulated the higher the assets building or accumulation and the reverse is true.

Also in line with the equality test between relative income earnings and assets building which were statistically not different from zero also implies that their impact or effect towards divorce is the same. The two variables move in the same direction with the same magnitude towards divorce



since higher relative earnings on the part of male relative to their wife's earnings tends to minimize divorce. Assets building or accumulation by the males also increases marital happiness and stability. Therefore this implies that, higher relative earnings of males leads to higher or more assets accumulation.

The study further revealed that the parameters which were statistically different from zero implied that the individual variables impact or effect were different from each other in terms of influencing divorce. Thus in the case of the parametric restriction test between the relative income earnings and consumer debt accumulation ( $\text{CE} \cdot 1$ ) was statistically significant and different from zero

since—the restriction had a p-value of 0.001 less than 0.05 which therefore implies that the restriction is not valid since the  $H_0$  is rejected meaning that the effects of the variables on divorce has a separate effect or impact on divorce.

Also the parametric restriction test between the relative income earnings and employment (a '2) was statistically significant and different from zero since the restriction had a p-value of 0.000 less than 0.05 which therefore implies that the restriction is not valid since the  $H_0$  is rejected meaning that the effects of the variables on divorce has a separate effect or impact on divorce which is not the same.

From Table 4.8 the parametric restriction test between consumer debt accumulation and employment ( $\text{CE} \cdot 4$ ) were statistically significant since the restriction has a p-value of 0.000 less than 0.05 which therefore implies that the restriction is not valid since the  $H_0$  is rejected, meaning that the effects of the variables on divorce has a separate effect or impact on divorce.

Lastly in Table 4.8 above the parametric restriction test between employment and Assets (a '5) were statistically significant since the restriction has a p-value of 0.000 less than 0.05, which therefore implies that the restriction is not valid since the  $H_0$  is rejected, meaning that the effects of the variables on divorce has a separate effect or impact on divorce.



### 4.3.3 RESULTS OF THE HYPOTHESIS TESTS

The economic variables of the females such as relative income, consumer debt accumulation and employment influences divorce more than the demographic variables. The probability values of the economic variables such as relative income and consumer debt accumulation with the following probability values of 0.336654 and 0.3923558 respectively are relatively greater than the demographic variables such as age at marriage and education with the following probability values of 0.0641587 and 0.027956 respectively. These variables have a significant positive impact on the marital instability (divorce) function meaning they influences or triggers divorce but the coefficients values of the economic variables are greater than the demographic variables signifying that those economic variables influences divorce more than the demographic variables.

The second hypothesis takes into accounts the effects of economic variables interactions on divorce whether they are statistically different from each other or not and has been extensively explain in section 4.3.1. The study rejected the null hypothesis and accepted the alternative hypothesis which affirmed that the economic variables were statistically different from each other except the interactions between relative income & assets and consumer debt accumulation & assets which showed that they are not statistically different from each other.

The third hypothesis also proved that education has a very significant impact on the earnings equation in the labour market. Education was statistically significant at 5% and 1% significance level which leads to the reject of the null hypothesis. Even though education is significant on the earnings but among the divorcee education level was very low.

Lastly, education was statistically significant to the employment equation in the labour market and was positively related to the employment equation in the labour market. Education was



statistically significant at 5% and 1% significance level in the employment equation which leads to the rejection of the null hypothesis but exhibited a small impact on the employment equation in the labour market.

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## CHAPTER FIVE

### CONCLUSION

#### 5.1 SUMMARY OF MAJOR FINDINGS OF THE STUDY

These findings are based on the analysis of data obtained from the Kwabre-East District of the Ashanti region.

- i. The study finds out that educational level of the divorced persons was positively related to the earnings in the labour market for both males and females. From the combined data of the divorcees in the earnings equation, education has an impact of 13.52697 on earnings in the labour market among the divorcees. But the education level of the divorced females has a greater beneficial (positive) effect on the earnings in the labour market than the divorced males' educational levels. Among the divorced females education has an impact of 14.03422 on the earnings in the labour market whereas the divorced males education has an impact of 13.6116 on the earnings in the labour market. The reason is that the higher the level of education of the divorcees the higher their earnings per month (wages).
- ii. In the labour market, the study finds out that the number of children possessed by the divorcees in the combined data for both males and females has a positive impact on the earnings with a marginal impact of 1.293596. Among the divorced females the number of children variable has a positive impact on their earnings with a value of 1.307166 but —  
—The number of children for divorced males negatively affects the earnings with a negative marginal impact value of -0.543153.



- iii. The study further finds out that age at marriage for the divorcee was relevant to the earnings and had a positive impact on the earnings in the labour market. From the combined data of both males and females in the earnings equation, age at marriage has an impact of 5.900945 on the earnings of the divorcee. However in the separate data for the divorced males and females, age at marriage still exhibited a greater positive impact on the earnings in the labour market with the values of 5.774096 and 5.579206 for males and females respectively.
- iv. With regards to the employment in the labour market, the study finds out that education level of the divorced person has a positive effect on the employment in the labour market for both males and females. With regards to the combined data of both males and females in the employment equation, education had a positive impact of 0.0100504 on the employment among the divorcee. Both divorced males and females' education level have a beneficial (positive) effect on the employment in the labour market with the marginal impact values of 0.0097391 and 0.0129036 for males and females respectively. The reason was that, the higher the level of education for divorced person the higher their responsibilities at work, and therefore tends to supply more hours of work since their services are highly in need.
- V. In the labour market, the study further finds out that the family size of the divorcee in the combined data for both males and females has a positive impact on the employment with a marginal impact value of 0.04056748. Among the divorced females the family size has a positive influence on their employment but the family size of the divorced males has a negative influence on the employment in the labour market with marginal impact values of 0.077614 and -0.0123128 for divorced females and males respectively. The magnitude of the impact of the family size variable on the employment was greater for the divorced females than the males in absolute terms.



vi. In the labour market, the earnings per month of the divorcee from the combined data has a positive influence on the employment (number of hours worked) with a marginal impact value of 0.0035351. The divorced females and males earnings per month also has a positive impact on the employment (number of hours worked) with marginal impact values of 0.0033748 and 0.003528 for females and males respectively.

vii. The study reveals that gender is very relevant in addressing the determinants of marital instability (divorce) issues. Almost all the economic activities or factors of female showed a positive impact on divorce. For instance relative income and consumer debt accumulation variables in the marital instability (divorce) function for female were positively related to divorce with the following positive values 0.336654 and 0.3923558 respectively which has a relatively greater marginal impact as compared to the demographic factors with the values of 0.0641587 and 0.027956 for age at marriage and education respectively. But the economic activities of the males showed a negative significant impact on divorce with a higher marginal impact relative to the demographic factors. This implies that economic activities of females' influences divorce whereas the males' economic activities do not.

viii. The study reveals that an employment activity for both sexes (male and female) is very relevant-~~Wmimmizing divorce. Employment~~ showed a significantly negative impact on divorce for both couples, thus with a marginal impact of -0.3108047 and -0.3188996 on divorce for females and males respectively. The average number of hours for both males



ix. The study find out that highly educated female couples tend to face or encounter divorce or marital instability. Thus highly educated female spends a lot of years on education which prolongs their marriages and tends to face marital problems with a marginal impact of 0.027956 whereas highly educated male couples exhibited a negative relationship with divorce. Thus highly educated male couples tend to minimize marital instability with a marginal impact value of -0.025408.

x. The study finds out that age at marriage for both divorced males and females exhibited a positive relationship with divorce. The average or mean age at marriage from the study for both sexes (male and female) was 31.3 years. Thus the work reveals that majority of the divorcees married too early (18years) below twenty and late thirty years. In the nut shell too early and late marriages influences divorce irrespective of gender.

xi. The study further reveals that consumer debt accumulation by any of the partners (i.e. male or female) tends to influence divorce. Thus debt accumulation by a new married couple tends to weaken the happiness and trust of most marriages which tends to bring divorce. The consumer debt accumulation as a variable for female couples had 0.3923558 marginal impacts on divorce whereas the debt accumulation for male couples had 0.3 188996 marginal impacts on divorce.

xii. The studyT1nd out thaysymbeheinteractionism is very relevant in the district as well as the country since children as a variable tend to have a negative relationship with divorce (i.e. minimizes divorce). This outcome reveals the extent to which males and females placed value on child bearing or forth-bringing to solidify marriages. Children as a



variable in the marital instability function for females has a marginal impact of -0.67295550 on divorce whereas the children variable exhibited a marginal impact of -0.6741994 on divorce among the males.

## 5.2 POLICY IMPLICATIONS AND RECOMMENDATIONS

- i. Stakeholders should enact laws to govern married couples to restrict them by putting in place penalties for divorcing. Social society groups can help spell-out the role of the husband as well as the wife in order to minimize the divorce cases with a particular emphasis on the Becker's and the Poortman specialization theory.
- ii. Stakeholders should encourage the youth to marry early (in twenties preferable) since the study revealed that when the age at which the couples get married prolongs or falls below twenties there is a high probability that divorce will occur. Sensitizing the youth about this will minimize divorce cases and further ensure persistent participation in the labour market
- iii. In line with the negative relationship between children (dummy) and divorce, the study recommends that, fertility test should be conducted to reveal the couples status to each other before getting bonded. Government and social society groups can launch a campaign to sensitize people on the importance of such fertility test before marriage. In African-society since yye-de-attach--aAot of importance to child birth, there is therefore the need for the couple's fertility status to be revealed to each other to maintain and sustain the happiness of every marriage before registration is granted.



iv. Finally the study recommends that, newly wedded couples should avoid accumulation of debt in order to secure the happiness and love of their marriages to combat divorce since there is opportunity cost of searching for a new wife or husband and out- of-pocket cost as well.

### 5.3 LIMITATIONS OF THE STUDY

- i. This study was limited in terms of the small sample size used. Especially with regards to the Probit model adopted, is very useful for large samples and this could affect the efficiency and unbiasedness of the results, for instance a variable like physical assets which was expected to be significant at 5% significance level was not.
- ii. Also the study is challenged from the exclusion of factors or variables such as the socioculture (religion, ethnicity e.t.c) and some socio-demographic variables (i.e. love, marital satisfaction, and e.t.c) of the respondents to find out their impact on divorce. Thus, if these factors were included, then the study would have been able to find out the extent to which love or marital satisfactions, religious and ethnic differences could impact or influence divorce.
- iii. The study is limited to resources and time constraint. The one year duration for the completion of the research was too short as well as the resources needed for the study was not enough.
- iv. Some of target groups (respondents) were not willing to response to the questionnaires or the interview. Most of them were feeling shy to response to the interview due to the stigma attached to divorce. In effects, the data collection was very challenging.

### 5.4 CONCLUSION

The study achieved all the stated objectives in chapter one in the midst of several challenges and hope to serve as a spring board to all interested persons who wishes to get an in-depth knowledge



on marital instability and the labour market of the divorcee. Finally, the study is expected to solidify most newly and old marriages to tone-down the scourge (divorce cases) in the country (core regions) to trickles-down to the peripheries thus the districts, municipalities and the metropolises. Even though Ghana is confronted with a lot of challenges towards the growth of the nation but in the midst of the several problems and objectives of the government in aid of the maximization of the citizens' welfare, the study therefore implored the policy makers, all stakeholders and the government to implement the policies being outlined in the study to tonedown the problem of the marital instability for the development of the nation and also put the labour market into a good shape without distortion of the equilibrium.

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## APPENDIX 1

### QUESTIONNAIRE USED IN THE STUDY ECONOMIC AND SOCIO - DEMOGRAPHIC ANALYSIS OF MARRIAGES INSTABILITY: CASE STUDY OF KWABRE EAST DISTRICT

This study is being conducted in partial fulfillment of the requirements for the award of a Master of Philosophy degree in Economics. All information received would be used solely for academic purposes and treated with strict confidentiality.

1. Gender: Female [ ☐ ] Male [ ☐ ]

2. Age at marriage: [  ]

3. Number of years spent on education: [  ]

4. Monthly Income/ expenditure: [  ]

5. Number of hours spent at work: [  ]

6. Are you divorced/seeking for divorced? YES [ ☐ ]

7. Did you receive relatively higher income than your partner? YES [ ☐ ] NO [ ☐ ]

8. Did you encounter problem of debt settlement before divorce? YES [ ☐ ] NO [ ☐ ]

9. Did you have children? YES [ ☐ ] NO [ ☐ ]

10. How many children do you stay with as a single parent? .....

11. What is the size of your family (how many people)? .....



12. Did you acquire any physical assets with your partner (i.e cars, house, e.t.c)? YES [ ] NO [ ] .  
APPENDIX 11

DESCRIPTIVE STATISTICS RESULTS

Descriptive Statistics of Variables Used in the Empirical Models for divorced Females

(. sum AgeM EDU E EMP CHN FS)

Variable I	Obs	Mean	Std. Dev.	Min	Max
AgeM I	210	31.55714	7.408715	18	52
EDU I	210	14.32381	6.71497	0	24
E I	210	448.9762	183.7033	45	1200
EMPI	210	7.838095	1.830752	4	9
CHN I	210	4.12381	1.302888	1	7
FSI	210	5.12381	1.302888	2	8

Descriptive Statistics of Variables Used in the Empirical Models for divorced Males

(. sum AgeM EDU E EMP CHN FS)

Variable I	Obs	Mean	Std. Dev.	Min	Max
AgeM I	199	31.76316	7.556609	18	52
EDU I	190	14.40526	6.627582	0	23
E I	190	445.4211	188.7843	45	1200
EMP I	190	7.884211	1.859414	4	9



CHN I 190 3.542105 1.821627 1 9.

190 4.542105 1.82-1627 2 10

A summary of the regression variables in the sample data for the probit model

(. sum AgeM EDU EMP 1 CDA DCHN AS)

Variable I	Obs	Mean	Std. Dev.	Min	Max
AgeM I	400	31.3	7.34574	18	52
EDU I	400	14.505	6.417393		23
EMP I	400	7.895	1.840501	4	19
I I	400	.77	.4213595		
CDA I	400	.855	.3525418		
DCHN I	400	.91	.2865402		
AS I	400	.7525	.4321001		

APPENDIX 111

QUANTITATIVE REGRESSION RESULTS



The Earnings Equation Results in the Labour Market for the divorced Males  
(. reg E AgeM EDU CHN CDA)

Source I	df	MS	Number of obs = 190				
			( 4, 185)		18.01		
Model I	1888002.85	4 472000.713		Prob > F	= 0.0000		
Residual I	4847863.46	185 26204.6674		R-squared = 66.2803			
				F=			
				R-squared	64.2647		
Total I	6735866.32	189 35639.5043		Root MSE -	161.88		
				Adj	=		
E I	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]		
AgeM I	5.774096	1.560154	3.70	0.000	2.696115	8.852077	EDU I
	13.6116	1.786167	7.62	0.000	10.08773	17.13548	CHN I
	-.543153						
	.0498554	-10.89	0.000	-13.36395	12.27765		
CDAI	-17.14016	23.70413	-0.72	0.471	-63.90534	29.62501	cons 1
	63.52616	19.60684	3.24	0.016	-45.10949	197.9751	

The Earnings Equation Results in the Labour Market for the divorced Females  
(. reg E AgeM EDU CHN CDA)



Source	I	df	MS	Number of obs = 210	
				F( 4,	- — 23.75
Model		2233732.28	4 558433.071	Prob > F	= 0.0000
Residual	1	4819372.6	205 23509.1346	R-squared	= 65.3167
				Adj R-squared	= 64.3034
Total	1	7053104.88	209 33746.9133	Root MSE	= 153.33
				205)	

	E	1	Coef.	std.	Err.	t	P> t	[95% conf. Intervall
AgeM	1	5.579206	1.46325	3.81	0.000	2.694258	8.464155	EDUI
		14.03422	1.58259	8.87	0.000	10.91398	17.15446	CHN I
		0.353914	3.76	0.000	-10.94224	15.99897		
CDAI	18.39132	21.74275	0.85	0.399	-24.47675	61.2594	cons	1 65.14209 18.0449
		3.61	0.004	-90.05634	120.3724			



Equation Results in the Labour Market for the

The Earnings

Males and Females

reg E AgeM

Adj R-squared - — 76.3035

Root MSE 153.6

E	Coefl	Std. Err.	t	P> t	[95% Conf. Interval]
AgeM	1 5.900945	1.018993	5.79	0.000	3.897617 7.904274
EDU	13.52697	1.14388	11.83	0.000	1 1.27812 15.77583
CHN	I 1.293596	0.0575381	22.48	0.000	-7.701548 10.28874
CDAI	.6531714	15.40807	0.04	0.966	-29.63891 30.94525
_cons	65.68612	19.49143	3.37	0.013	-25.48176 141.5935

EDU CHN CDA)

Source	I	MS
Model	I 4195584.48	4 1048896.12
Residual	I 9319567.45	395 23593.8417
Total	I 13515151.9	399 33872.5612
combined data for both		

Number of obs = 400

395) =44.46

Prob > F = 0.0000 R-squared

= 77.3104

The Employment Equation Results in the Labour Market for the  
(. reg EMP E FS EDU) Source Idf

MS



Model | 77.0167763 3 25.6722588  
Residual | 576.435855 186 3.0991175

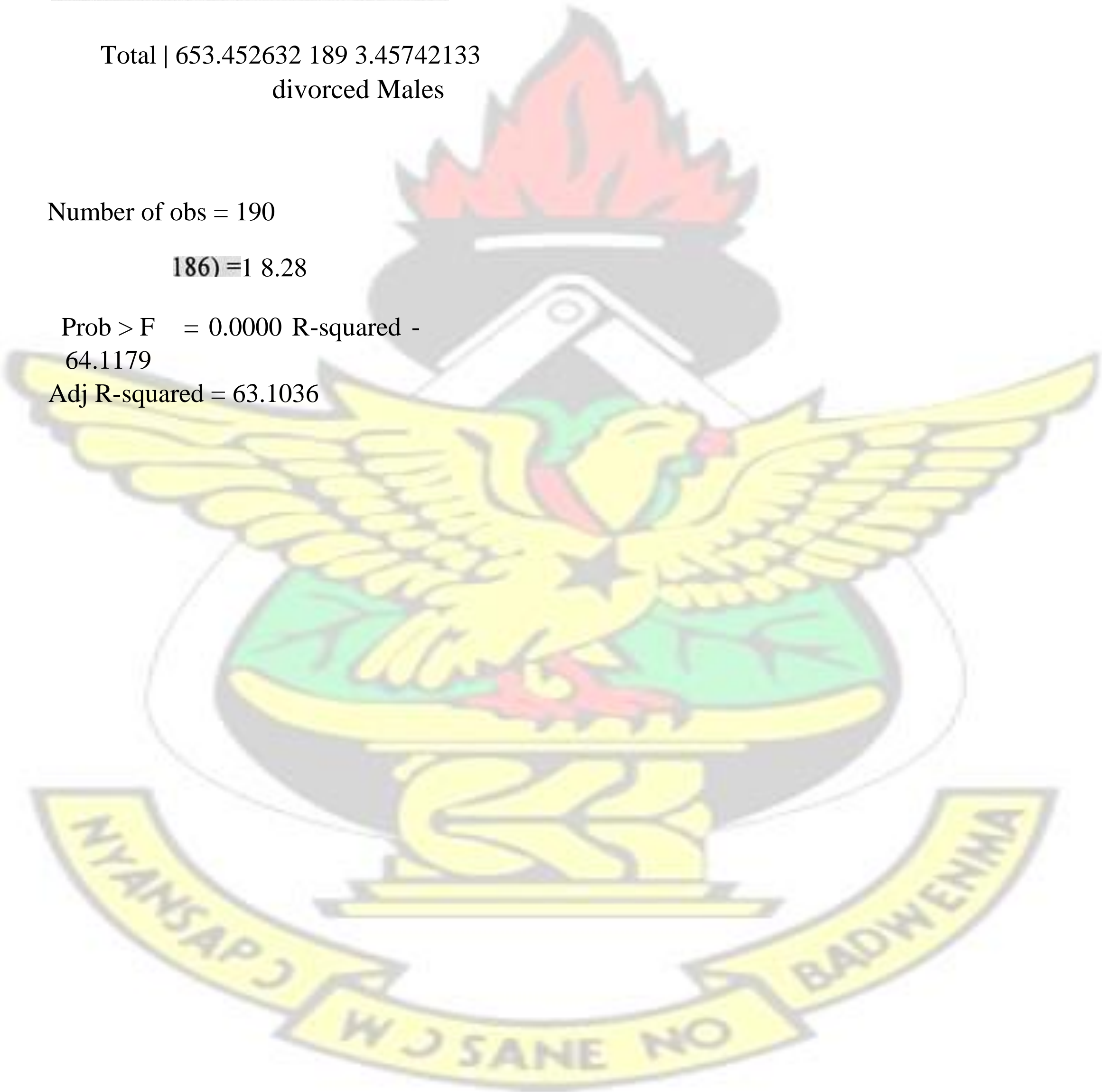


Total | 653.452632 189 3.45742133  
divorced Males

Number of obs = 190

186) =1 8.28

Prob > F = 0.0000 R-squared =  
64.1179  
Adj R-squared = 63.1036





The Employment Equation Results in the Labour Market for the  
Root MSE = 1.7604

EMP I	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
E 1	.003528	.0007707	4.99	0.000	.0020076 .0050484
F S	-.0123128	.00703278	-17.50	0.000	-.1510556 . 12643
EDU I	.0097391	.00219611	4.44	0.000	.0335857 .0530639
cons I	6.508999	.4867501	13.37	0.000	5.548739 7.46926

The Employment Equation Results in the Labour Market for the  
(. reg EMP E FS EDU) R-squared - 65.1046 Adj R-squared = 63.0916

Source	I	df	MS	Root MSE	— 1.7449		
EMP	I	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
E	1	.0033748	.0007679	4.39	0.000	.0018608 .0048887	
FS		.077614	.00927769	8.37	0.000	-.1053 .260528	
EDU	I	.0129036	.00210186	6.14	0.000	.0285355 .0543427	cons
	I	6.110049	.5718757	10.68	0.000	4.982569 7.237528	

Model		73.2975491	3	24.4325164
Residual		627.197689	206	3.04464898
Total		700.495238	209	3.35165186
divorced Females				

Number of obs = 210

$F(3, 206) = 18.02$

$\text{Prob} > F = 0.0000$



The Employment Equation Results in the Labour Market for the  
Males and Females

Number of obs = 400

(. reg EMP E FS EDU)

393)=16.85

				Prob > F	= 0.0000
				R-squared	= 77.0140
				Adj R-squared	= 75.1072
				Root MSE	= 1.7385
Source	I	df	MS		
Model	I	152.818758	3	50.939586	
Residual	I	1187.83615	393	3.02248385	
Total	I	1340.65491	396	3.3854922	
combined data for both					

EMP	I	Coef.	Std. Err.	t	P> t	[95% conf. Interval]
E	1	.0035351	.0005471	6.46	0.000	.0024596 .0046106
S		.0529148	.0128099	4.13	0.000	-.0809103 .12674
EDU	I	.0100504	.00149578	6.72	0.000	.0193569 .0394578
cons	I	6.330326	.3628119	17.45	0.000	5.617031 7.04362

A probit regression results for female divorce couple

(. prob divorcefemale 1 EMP CDA AS AgeM EDU DCHN)

Probit regression	Number of obs	400
	LR chi2(7)	123.00
	Prob > chi2	0.0000
Log likelihood - — -215.40301	Pseudo R2	0.2221



divorcefem—e I	Coef	Std. Err.	z	P> z	[95% Conf Intervall	
I1	.336654	.1999834	1.98	0.043	-.0017756	.6752836
EMPI	-.3108047	.0540641	-5.75	0.000	-.4167685	-.2048409
CDA I	.3923558	.1997843	1.96	0.050	.0007859	.7839258
AS	-.2968201	.1652972	-1.80	0.073	-.6207966	.0271564
AgeM	.0641587	.01033	6.21	0.000	-.0439124	.0844051
EDU	.027956	.0112815	2.48	0.013	.0058446	.0500673
DCHN	.6729555	.2415261	2.79	0.005	.1995731	1.146338
_cons	13.161318	.604365	5.23	0.000	1.976784	4.345852



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A probit regression results for male divorce couple

I 1	-.4653855	.1788933	-2.60	0.009	-.8160098	-.1147611
EMP I	-.3188996	.0545897	-5.84	0.000	-.2119056	-.4258935
CDA I	.37736	.2000875	1.99	0.049	- .0148042	.7695243
AS I	- .2892254	.1659495	-1.74	0.081	- .6144805	.0360296
AgeM I	.064768	.0103781	6.24	0.000	.0444273	.0851087
EDUI	-.025408	.0113656	-2.24	0.025	-.0476841	-.0031319
DCHN I	-.6741994	.2418916	-2.79	0.005	-IA48298	-.2001006

(. cons I -3.183488 .6073639 -5.24 0.000 -4.373899 -1993076  
prob divorcemale 1 EMP CDA AS AgeM EDU DCHN)

Probit regression

Number of obs — 400

I-R chi2(7) 1252

Prob > chi2 - 0.0000

Log likelihood--213.52098

Pseudo R2 - 0.2267

divorcemale I Coef Std. Err. z P>|z| [95% Conf Interval)