

**ASSESSING THE EFFECTS OF FOREIGN CONSTRUCTION LABOUR  
FORCE INFLUX ON PROJECT DELIVERY IN ACCRA**

KNUST

By

Richard Amoah Yankson,  
(B.Sc. Quantity Surveying and Construction Economics)

A thesis submitted to the Department of Construction Technology and Management,  
Kwame Nkrumah University of Science and Technology, Kumasi in partial fulfilment of  
the requirements for the degree of

MASTER OF SCIENCE IN CONSTRUCTION MANAGEMENT

November, 2019

## DECLARATION

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma at Kwame Nkrumah University of Science and Technology, Kumasi or any other educational institution, except where due acknowledgment is made in the thesis.

RICHARD AMOAH YANKSON (5052918) .....  
(STUDENT) Signature Date

PROF. FRANK FUGAR .....  
(SUPERVISOR) Signature Date

PROF. BERNARD KOFI BAIDEN .....  
.....  
(HEAD OF DEPARTMENT) Signature Date

## ABSTRACT

International migration has been a major problem in local labour construction economies, where different-skilled labour is discovered within a country. Foreign workers have both beneficial and adverse effects on the delivery of construction projects. This research was aimed at examining the effects of the influx of foreign labour force on the delivery of construction projects in Ghana. A structured questionnaire was used in gathering the perception of some construction professionals within the Accra metropolis with regards to the research objectives. The data collected were analysed and presented using descriptive statistics and relative importance index. The results showed that the most common foreign labour on construction sites were carpenters, POP specialists, unskilled labourers, painters, tillers, and plumbers. It was also discovered that these employees migrated primarily from Togo, Benin, Burkina Faso and La cote D'voire. The positive effects of foreign labour on construction sites included technology transfer, productivity boost and the enhancement of efficiency in project delivery. The key negative effects also included unemployment for the local labour force and increased criminal activity on-site. The findings from this study shall help the Government of Ghana to formulate policies that would benefit the local nationals without any prejudice towards foreigners in terms of restricting them from coming to work here in our country and for that matter our construction sites. **Keywords:** Construction, Labour force, Project Delivery, Ghana

## TABLE OF CONTENT

<b>DECLARATION</b> .....	<b>ii</b>
<b>ABSTRACT</b> .....	<b>iii</b>
<b>TABLE OF CONTENT</b> .....	<b>iv</b>
<b>LIST OF TABLES</b> .....	<b>vii</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>viii</b>
<b>DEDICATION</b> .....	<b>ix</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
<b>GENERAL INTRODUCTION</b> .....	<b>1</b>
1.1 BACKGROUND OF THE STUDY .....	1
1.2 STATEMENT OF THE PROBLEM.....	2
1.3 RESEARCH QUESTIONS .....	3
1.4 AIM AND OBJECTIVES .....	3
1.4.1 Aim.....	3
1.4.2 Objectives .....	4
1.5 SCOPE OF THE STUDY.....	4
1.6 SIGNIFICANCE OF THE STUDY .....	4
1.7 METHODOLOGY .....	5
1.8 STRUCTURE OF THE THESIS .....	5
<b>CHAPTER TWO</b> .....	<b>6</b>
<b>LITERATURE REVIEW</b> .....	<b>6</b>
2.1 INTRODUCTION .....	6
2.2 CONCEPTUAL REVIEW .....	6
2.1.1 Labour Productivity in the Ghanaian Construction Industry .....	6

2.1.2 Construction Labour Force and their roles .....	10
2.1.3 Movement of Foreign Workers in International Construction Market .....	12
2.2.1 Influx of Construction Labour Force .....	13
2.2.1.1 Economic Factor .....	15
2.2.1.2 Low Wages for Local Workers .....	18
2.2.1.3 Labour Shortage .....	19
2.3 THEORETICAL REVIEW .....	23
2.3.1 Macro theories .....	23
2.3.2 Meso Theory .....	24
2.4.3 Micro Theory .....	25
2.4 EMPIRICAL REVIEW .....	26
2.4.1 Effects of the Influx of Foreign Construction Labour Force .....	26
2.4.1.1 Economic Implications .....	26
2.4.1.2. Social Effects .....	28
2.4.1.3 Technological Advancement.....	31
2.5 SUMMARY.....	35
<b>CHAPTER THREE .....</b>	<b>36</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>36</b>
3.1 INTRODUCTION .....	36
3.2 RESEARCH STRATEGY AND DESIGN .....	36
3.3 POPULATION .....	36
3.4 SAMPLE AND SAMPLING PROCEDURES .....	37
3.5 DATA COLLECTION TECHNIQUES .....	37
3.5.1 Sources of Data.....	37

3.5.2 Data Collection Instrument (Primary Data).....	37
3.5.3 The Fieldwork.....	38
3.6 DATA ANALYSIS TECHNIQUES .....	38
3.7 ETHICAL CONSIDERATIONS .....	39
<b>CHAPTER FOUR.....</b>	<b>39</b>
<b>RESEARCH RESULTS AND DISCUSSION .....</b>	<b>39</b>
4.1 INTRODUCTION .....	39
4.2 BACKGROUND OF RESPONDENTS.....	40
4.3 TYPOLOGIES OF FOREIGN LABOUR FORCE INFLUX ON CONSTRUCTION SITES .....	41
4.4 POSITIVE EFFECST OF THE FOREIGN LABOUR FORCE ON CONSTRUCTION PROJECT DELIVERY .....	43
4.5 NEGATIVE EFFECTS OF THE FOREIGN LABOUR FORCE ON THE GHANAIAN CONSTRUCTION INDUSTRY .....	44
<b>CHAPTER FIVE.....</b>	<b>46</b>
<b>SUMMARY, CONCLUSION AND RECOMMENDATION.....</b>	<b>46</b>
5.1 INTRODUCTION .....	46
5.2 SUMMARY OF FINDINGS.....	47
5.3 CONCLUSION .....	49
5.4 RECOMMENDATION.....	49
5.4 LIMITATIONS OF THE STUDY .....	51
5.5 FUTURE RESEARCH DIRECTIONS .....	51
<b>REFERENCES.....</b>	<b>52</b>
<b>APPENDICES.....</b>	<b>61</b>

## LIST OF TABLES

Table 4.1: Background of Respondents .....	42
Table 4.2: Typologies of foreign labour force influx on construction sites in Accra .....	44
Table 4.3: Ranking of the positive effects of foreign labour force on project delivery .....	46
Table 4.4: Ranking of the negative effects of foreign labour force on the Construction industry .....	47



## ACKNOWLEDGEMENT

All thanks and Glory be to the Most High God who has made it possible to complete this work. I am also highly indebted to my supervisor, Rev. Prof. Frank Fugar whose constructive criticism and directions brought me to this far in conducting this research.

To the study respondents, God bless each of you for your precious time.

I also thank all my friends loved ones who contributed in diverse ways towards the success of the work.



## DEDICATION

This work is dedicated to my family

# KNUST



## CHAPTER ONE

### GENERAL INTRODUCTION

#### 1.1 BACKGROUND OF THE STUDY

Through the years, the construction industry in Ghana has seen quite an appreciable amount of foreign citizens and its physical effect can be seen by all as they have significantly contributed to the country's development infrastructure, particularly in the regional capitals. Knowledge transfer and technological know-how are some of the advantages gained in the industry as a result of having these foreigners on our construction sites, but one cannot underestimate the stress their existence places on the restricted work prospects for local citizens, particularly in the present times of high unemployment rate in the country. According to Rostow (1963) the significance of the construction industry in the socio-economic and sustainable development of a country has been recognized by both developing and developed nations. Building operations are strongly related to the different stages of a country's economic development. At the macroeconomic stage, this was discussed for several years. Historically, building activities have been linked to the process of industrial and urban development since the dawn of the industrial revolution. The connection between the building products and the domestic output is indicated to be direct. It is also pointed out that when the economy grows and vice versa, building production grows quicker than domestic production (Hua, 1995; Turin, 1969; Wells, 1986). as cited (Ali et al., 2002). Over the past 20 years, Ghana's economy has grown rapidly, and this has contributed to and benefited the construction sector. The sector itself has enjoyed impressive growth, increasing its contribution to GDP and employing 320,000 people.

It employs 2% of young individuals in Ghana and offers young individuals with more training and apprenticeship opportunities than any other sector (Owusuaa, 2012 ; GSS, 2013)

The above-mentioned facts obviously shows that the construction industry plays a significant role in creating work possibilities and generating new sources of income for both skilled and unskilled people in the society. The variation in the construction industry and its activities, therefore, has a significant effects on all aspects of human life, which is why the influx of foreign nationals into the building labour market tends to displace local citizens or limit their market possibilities, which will eventually have an adverse economic growth effects, in particular when foreigners return income home.

## **1.2 STATEMENT OF THE PROBLEM**

The development of nations largely depends on construction activities that constitute a large chunk of infrastructural development projects. Construction has a high employment rate for many countries, including Ghana, with diverse expertise from different fields of knowledge, from construction professionals, skilled and unskilled labour across societies. Construction projects attract employees from far and near due to the number of professionals involved in the construction operations and the benefits it brings to the society. Over the years, Ghana has seen quite an appreciable number of foreign professionals from many countries come into the country to contribute their quota to the developments of the nation in the construction industry. As a nation, Ghana benefits by working with these foreigners at the various sites especially on very large projects where due to the complexities of the works, expatriates are brought in from outside to perform such specific roles. However, despite the positive effects these labour have on project delivery, their negative effects at project sites have been a

perennial topic of discussion. Over the years, it is gradually becoming the norm that even works that are supposed to be done by our local labour such as masonry works, painting, carpentry and the likes are all being done by these foreign nationals and that has the tendency of depriving our local labour's chances of getting jobs at the various construction sites. In order not to deprive the

2% of young people in Ghana from training and apprenticeship opportunities (Owusu, 2012; GSS, 2013) it is imperative that a study is carried out to examine the effects of these foreign construction labour force influx on construction projects in the country.

### **1.3 RESEARCH QUESTIONS**

The objectives of the current study was to find answers to the following research question.

- (i) What foreign construction labour typologies are prevalent at construction sites in Ghana?
- (ii) What are the positive effects of these foreign labour on construction project delivery in Ghana?
- (iii) What are the negative effects of the foreign labour force on construction project delivery in Ghana?

### **1.4 AIM AND OBJECTIVES**

#### **1.4.1 Aim**

The aim of the study was to assess the effects of foreign construction labour influx on project delivery in Accra to maximize the positives and minimize the negatives.

### **1.4.2 Objectives**

The following specific objectives were pursued to achieve the above aim:

- (i) To identify the construction labour typologies prevalent at construction sites in Ghana;
- (ii) To identify the positive effects of these foreign labour on construction project delivery in Ghana; and
- (iii) To identify the negative effects of the foreign labour force on construction project delivery in Ghana

### **1.5 SCOPE OF THE STUDY**

There are several ongoing construction projects within the country, particularly in the regional capitals. Nevertheless, due to time constraints this study will be restricted to the greater Accra region because this region can boast of most construction projects within the country. The study was limited to construction workers engage on projects within the greater Accra region.

### **1.6 SIGNIFICANCE OF THE STUDY**

This research sought to know why the influx of foreign nationals in our construction site over the years. Additionally, it brought to the fore the current challenges facing the local nationals by the presence of these foreigners on their sites. The findings shall help the Government of Ghana to formulate policies that shall benefit the local nationals without any prejudice towards foreigners in terms of restricting them from coming to work here in our country and for that matter our construction sites. It was expected that this research work

and its findings will add to knowledge acquired previously by earlier researchers of similar topics.

## **1.7 METHODOLOGY**

The study employed a quantitative approach with the use of a descriptive survey method. Data was gathered using questionnaires because of its immense degree of reliability. The questionnaires for respondents was administered by direct contact. Primary data for the study was obtained from professionals with adequate knowledge in construction activities based in Accra and have also undertaken projects in other parts of the country. Social Sciences Statistical Package (SPSS) and Microsoft Excel software were used to analyze the primary data gathered from the questionnaire administered. Statistics descriptive such as percentages, tables and frequencies were also used to analyse and present the results of the study.

## **1.8 STRUCTURE OF THE THESIS**

The whole research was structured into five sections, section one consisted of the background to the study with explanation of the research problem, research aim, and research objectives, research scope, methodology, study justification among others. Chapter two also consisted of the critical review of concepts and theories on migration of the construction labour force. The effects on project delivery of the labour force influx was also reviewed. The research methodology was described in chapter three. The research results and discussions of the main findings was presented in Chapter four. The final section was the summary of the study's main results, completion and suggestions.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This section explores several research findings related to construction foreign labour influx which has been published on the subject of measuring and rating foreign labour influx and uncovers the knowledge gap that exists in literature concerning factors affecting foreign labour influx. This chapter deals with the migration of foreign labour influx, construction process, inputs of construction, training, and skills required in the construction industry, management of construction, labour management, strategies of managing labour, and highlights the management and motivational theories which have a direct bearing to the study.

#### **2.2 CONCEPTUAL REVIEW**

##### **2.1.1 Labour Productivity in the Ghanaian Construction Industry**

Labour productivity in the construction industry is the units of work accomplished for the unit of labour (Wilcox, 2000). Globally, the building section of the construction industry is mainly concerned with the assembly of building materials and components which are supplied by the manufacturing sector and delivered to the site by the transportation sectors. Though the construction industry has greatly improved in terms of total productivity in last decades with the development of machinery and work equipment more powerful on the one hand, and new construction procedures on the other, it still continues to be a labourintensive industry where labour costs still remain an important part of the overall project's cost (El-

Gohary & Aziz, 2014). In fact, other authors have revealed that, generally, labour costs represent up 30% to 50% of the overall cost of the project (Guhanthakurta, 1993;

McTague & Jergeas, 2002). In 2012, labour costs amounted to 27,702.9 m €- almost a third of the total business volume in the Spanish construction industry (Formento, 2012). Given this scenario, it is easy to see that construction labour productivity (CLP) plays a critical role in most of the construction projects and hence, labour productivity in Spain should not remain unnoticed. Consequently, efforts to improve labour productivity levels in construction companies should be considered. Understanding critical factors that affect labour productivity can help to develop strategies to reduce inefficiencies and to more effectively manage construction labour forces. This will not only improve the project performance of construction companies, but also make them more competitive and consequently increase the chances of survival within this highly competitive sector. Previous researchers have studied the factors influencing CLP in the last decade in different countries; however, no studies has been conducted in Spain concerning construction labour productivity, thus deeper research is still needed in this area. Therefore, the main objective of this study is to identify, analyze and rank factors affecting labour productivity in the Spanish construction industry with respect to their relative importance.

Improving productivity is a major concern for any profit-oriented organization, as representing the effective and efficient conversion of resources into marketable products and determining business profitability (Wilcox et al., 2000). Although a great number of publications exist concerning construction productivity, there is no agreement on a standard productivity measurement system. Researchers have concluded that it is difficult to obtain a standard method to measure labour productivity because of project complexity and the

unique characteristics of construction projects (Oglesby et al., 1989). The uniqueness and non-repetitive operations of construction projects make it difficult to develop a standard productivity definition and measure (Sweis, 2000).

Labour which is sometimes known as human resources is widely recognized as being vital in every organization and it has been found to account for a third of the total direct capital cost of construction projects (Jergeas, 2009). In construction, skilled labour is very important factor of production as it is the one that combines all other resources in order to produce the various construction products like roads, dams and buildings. (Thomas, 2004) pointed out that only a third to one and a half of operative's time is spent directly on work activities productive and the rest of the time they are idle waiting for the materials, plant and instructions from the supervisors to be received. Labour control provides the make or break of any organization as the production labour cost area is the most susceptible to fluctuation. This source of competitive advantage for organizations is known as „Intellectual capital“.

In general, productivity is often defined as a relationship between output produced by a system and quantities of input factors utilized by the system to produce that output (Mbiti, 2008). Here, the output can be any outcome of the process, whether a product or service, while input factors consist of any human and physical resources used in a process. Increased productivity in the construction industry can be viewed from two perspectives, the consumer and the contractor. From the consumer's perspective, increased productivity lowers costs, shortens construction schedules, offers more value for the money, and achieves better returns on investments. From the contractor's perspective, increased productivity leads to a more satisfied customer, while also providing a competitive advantage, and in return leading to

faster turnover and increased profits (Horner, 2001). Labour productivity is defined by (Jergeas, 2009) as the ratio of actual labour employed to output produced in the process of providing services or producing products. Output is the total quantity of the products or services produced in a given period of time and measured in appropriate units for example the area plastered by a mason in a day or per hour. Input is the total quantity of labour employed on specific activities over a given period of time and measured in appropriate units. According to Lema (1995), the formula for calculating productivity in labour intensive construction is as follows:

Labour productivity = input/output

Production labour will have an influence on construction projects in terms of delivery time, cost and quality of workmanship. Problems negatively affecting labour productivity have long been a concern of researchers. Based on previous studies, key factors that affect labour productivity in construction have been obtained from the works of Enshassi (2007), Olomolaiye (1998) and Kaming (1997) who observed that the critical factors negatively affecting labour productivity in developing countries differ from those in developed countries. They further argued that construction projects are generally unique and are built on sites with different work crews associated with different trades, level of education, religion and culture. The work is cyclical due to the weather, seasonal variations, and the economic climate. In a study by Heizer (1990), it was established that Labour productivity is generally affected by the following variables: educational levels, government policies, motivation and social overhead that make labour available.

As it will be explained later, operative with higher qualification and motivated generally tend to produce more than their counterparts with less education since rework is minimal. This

may be due to the ease at which they can internalize instructions given to them by their supervisors. According to the studies of Burgess (1979), labour productivity may be negatively affected by re-work which on its own can have greater effect on productivity.

Rework may stem from:

1. **Change of Instructions:** When instructions are issued to the contractor to make changes when work is in progress this will call for the demolition of certain parts to accommodate the changes.
2. **Unclear Instructions:** Verbal instructions at times may lead to different interpretations. It is recommended that the instructions should be in writing to make the communication clearer. Any instruction given on site verbally should be confirmed by the parties within the timelines spelt out in the conditions of the contract (Kwakye, 2000).
3. **Complex Specification:** time will be wasted by the operatives when trying to figure out the correct interpretation of the wording.
4. **Poor workmanship:** this will lead to the work being re-done by the operatives. This is as a consequence of incompetent supervision by the line managers.

### **2.1.2 Construction Labour Force and their roles**

The construction industry is a complex and dynamic industrial sector. The construction industry entails many players at various stages; the construction organisation, primarily, encompassing functions such as planning, design, construction, and maintenance. The stakeholders mainly including client, designer, contractor, and manufacturer are involved from the start till completion of the project. Previous researchers revealed that traditional

construction project delivery practice generated many problems associated with fragmentation, such as; isolation of professionals, lack of coordination between design and construction, and as it is carried out in a sequential manner. Typically, the separation of the design and construction process in traditional contracting practice (design-bid-build) further hinders the integration of construction knowledge among contractors, diminishing the opportunity for them to influence design decisions (Song et al., 2006). Failure of design professionals to consider how a contractor will construct the design can result in scheduling problems, delays and disputes during the construction process (Arditi et al., 2002). More importantly however, opportunities to reduce the schedule failings, improve the functionality of the final product, and reduce costs are missed when construction is separated from planning and engineering (CII, 1996). Therefore, how to effectively incorporate construction requirements and knowledge at an early stage of the project (design process) is paramount and undoubtedly leads to an overall improvement in project performance (Pocock et al., 2006; Khalfan et al., 2001).

The term fragmentation can be defined in terms of the number of firms/ specialists involved in construction projects, and in terms of its effects on the multiple processes in construction projects. In the context of the construction industry, (Abadi, 2005) defined fragmentation as: “the division resulting from the increasing number of both professions (i.e. architect, engineer) and organizations involved in all processes of a building project. This has been caused by the growing demand for differentiation and specialization as building projects increase in both size and complexity.” There are two main forms of fragmentation in the construction industry; internal fragmentation and external fragmentation (Abadi, 2005). Internal fragmentation refers to the problem of integration and coordination between

different alliance organizations (e.g. client, consultant) while external fragmentation refers to the involvement of non-alliance organization (e.g. local authority) at different stages of the design process.

The Egan (1998) report was highly critical of the sequential nature of construction processes which often acts as an effective barrier to using the skills and knowledge of all project partners effectively in the design and planning of the project. Previous reports (Latham, 1994; Nelson, 2004) argued that input from other experts, such as mechanical and engineering design/construction professionals, as well as facility management expertise was needed during the early stage of a project. In addition, the gap between design and construction processes also contributes to ‘major behavioural, cultural and organisational differences between project individuals and groups (Love et al., 2004). During the design and construction stage for example, it is clearly shown in the diversification of the goals of the designers and builders where “the designer wants a functional design that reflects his philosophy and the builder wants a buildable product within reasonable risk limitations” (Mendelsohn, 1998).

### **2.1.3 Movement of Foreign Workers in International Construction Market**

The building industry's rapid growth has resulted in growing demands for building employees, making it one of the industries that faced serious shortages of labour in advanced and developing countries (Yusof and Jamil, 2011). As a solution to the issue, foreign employees from less developed countries were sought for (Han et al, 2008; Palanisamy, 2011). Kassim (2005) said the condition became worse when foreign labourers do not occupy the jobs offered. Also, the Malaysians became very discriminatory of the job they are carrying out and they do not accept building job that is known of filth, harmful and

hard. Abdul-Aziz (2001) pointed out that one of the industries strongly dependent on foreign employees in the building industry. The increase in overseas employees is motivated by both sides of supply and demand variables, however, the latter is more important (Lee and Sivananthiran, 1996; Yusof and Jamil, 2011). The effects of external employees on the Malaysian construction industry was both positive and negative. However, the current research focuses only on the negative effects. There were 1,470,900 foreign workers in 2004; by 2009, the number had swelled to 2,100,000 having promised to decrease the inflow by the government. International labour migration has become an increasingly important phenomenon and a very significant effect in most developing countries over the previous three decades (Adi, 2003). Nevertheless, Wells (1996) stated that little academic attention was paid to the recruitment and jobs of foreign employees in the global building sector. With economic growth and globalization, population mobility is increasing (Pillai, 1999). In terms of social, economic and political variables, migration can effects a nation, and many basic tensions are underlying attempts to handle globalization's international migration (Yap, 1999).

### **2.2.1 Influx of Construction Labour Force**

Migration includes a broad variety of movements and circumstances involving individuals from all walks and backgrounds of life. In an age of deepening globalization, migration effects all countries and individuals more than ever before. Geopolitics, trade and cultural exchange intertwine migration, providing possibilities for tremendous advantage to nations, companies, and regions. Migration has contributed to enhancing the lives of individuals in both nations of source and destination and has given possibilities for lots of individuals around the world to forge a secure and meaningful life overseas. Wells (2007)

conceptualizes various facets of informality, including informal building companies, casual labour, informal construction, and informal houses or settlements. Informality, thus, can involve for example building practices that are not legally permitted by municipalities and thus are not included in data gathering on the market; illegal renovations and demolitions or financing that occurs through non-standard means. Construction may have a legal license but may require bribes or illegal work on site. It can employ a formal sector workforce and have a legal building permit but contravene zoning bylaws, occupational health and safety laws or local building codes. A formal sector contractor on-site can hire an array of subcontractors, some of whom are not registered companies, and/or may hire unauthorized migrants, or fail to follow local employment laws in their management, hiring or firing practices. Likewise, the lives and livelihoods of migrant building employees can be transformed by political and financial formality and informality in complicated ways.

For instance, an international student legally studying overseas may operate part-time in building but exceed the allocated working hours allowed under their student visa. Other migrant employment conditions can rest on the very margins of both the law and the formal labour market, yet produce similar vulnerabilities to workers who are employed informally. For example, a migrant working legally for a contractor who is registered as a 'self-employed' subcontractor, despite working for years for this employer, allows the contractor to save large amounts of money on payroll taxes and/or other requisite benefits they might be required to provide for migrant employees. Migrants with legal authority to work and reside in a destination country, meanwhile, might be housed by their employer on makeshift illegal living accommodations on the construction site. Prevalent in a sector that often needs large numbers of mobile, temporary workers, and especially in locales where housing is

expensive or scarce – and as we explore in further detail later in the report – these conditions of residential informality can become an added layer of vulnerability or exploitation for migrant construction workforces that extends outside of either informal sector employment or illegal migrant status. In her extensive review of the literature on informal construction, Wells (2007) shows four regulatory elements, including corporate regulation; terms and conditions of jobs; building process and product.

### **2.2.1.1 Economic Factor**

Because of its relatively better quality financial results and opportunities for external labour, Malaysia is appealing. A huge rural-urban migration drift has occurred due to higher industrialization and economic urbanization, which in turn led to an acute lack of employees. Malaysia has a preferred chances for potential immigrants as a rapidly growing and progressive country. Labour demand has steadily increased together with financial advancement. Navamukundan (2002) also stated that Rapid programs for economic development and maintained elevated Malaysia's economic growth rates roughly thirty years have led the inflow of overseas employees meeting Malaysia's increasing labour market demand. Home country living standards and salary rates are the most important variables that influence local employees' migration to other developed countries to obtain greater salaries (Wells, 1996). It will result in emigrating resident employees, placing additional stress onto scheme and growing reliance on overseas labour (Sunderhaus, 2007).

Such an event chain I'd hamper and hinder attempts to draw resident building employees (Abdul, 2009; Azam et al., 2009). Resident labour may be able to refuse to work in the construction sector as an external workforce is accessible (Castles and Miller, 1998). Also,

external workforce involvement in the building industry is essential to compensate for the rise in building expenses as the external employee's salary rates are small (Lee and Sivananthiran, 1996). Over-reliance of external employees will lead to cash exit, decreasing yield efficiency, and disturbing the social and economic equilibrium. Also, the big amount of overseas employees is viewed as a safety risk due to the increasing rate of crime and infectious illnesses (Kanapathy, 2008). Over-dependence on foreign employees will lead in currency outflow, decreasing productivity efficiency, and disturbing the social and economic equilibrium. Additionally, the big amount of overseas employees is viewed as a safety risk due to the increasing crime rate and contagious illnesses (Kanapathy, 2008). Zimbabwe also encountered an economic downturn that led to qualified and unqualified labour outflows. Employees from other financial industries were not spared from the country's financial problems (Tevera & Zinyama, 2005). Poverty pressures, growth in the population, high inflation rates, scarcity of jobs, and a volatile cocktail of insecurity created political instability. In pursuit of greener pastures, these reasons mostly led the qualified and non-skilled labour force to immigrate to other nations. In addition to searching for lush pastures, 17.8 per cent just left the nation because they couldn't get jobs locally (CSO, 2010). The background of the Southern African Development Community (SADC) The labour migration study dates back to the African colonization period of 150 years. (Crush, 1999). The uneven influx of migrants from Zimbabwe to nearby nations continues to be increasing, and migratory influx from and within Zimbabwe the ability of the country to manage migration has posed critical challenges. Zimbabwe has seen rapid immigration of experts mainly to various nations like South Africa but also the United

Kingdom and Australia due to a big scale of out-migration. Therefore, International Labour Migration (1999) seeks to exploit migration's potential for growth for the help of the government's involved, individual movement for the advantage of the state involved, people's movement and society as a whole. Zimbabwe's people's movement cause has been due to the adverse effects of the 1990-1995 IMF / World Bank Economic Structural Adjustment Program (ESAP) (Chetsanga & Muchenje, 2003). To increase revenue levels, ESAP has been implemented to facilitate greater growth rates, job creation and improve people's living standards (POI, 1991). This program has resulted in financial hardships that have caused many experts as educators, nurses, and physicians leaving their countries in search of plush pastures abroad (Tevera & Crush, 2003). The nation has witnessed a big amount of its people, with its history of migration being labelled unusual. Countries have historically been either immigrant recipients or senders, but since 1990 Zimbabwe was always in the unusual situation of just sending. Due to the ongoing deterioration of financial and political circumstances since 2002 (Chetsanga & Muchenje, 2003), which climaxed around 2008-2009, the nation has become a more migrant exporter. Countries have historically been either recipients or senders of migrants, but Zimbabwe has always been in the rare condition of sending only since 1990. Research by (Chikanda, 2005) showed that the average immigration rate during 2000-2005 was around 20.20% for other nations. It's quite obvious that the country's economic fluctuation had a higher effect on the phase of migration outside the nation before 2000 rates of migration averaged slightly below 8% (Ricardo, 2003). However, in 2009 afterwards of the establishment of the Government of National Unity, immigration rates rose to over 5,000 annually before dropping to slightly above 1,000 ( Central Statistics Office, 2004). This demonstrates that individuals had excellent expectations that had not been delivered and that the immigration

rate began to rise after 2010. South Africa, United Kingdom, Australia, Botswana, and Tanzania were mostly the destinations. Zimbabwe's high inflation, shortage of basic commodities and drastic monetary policy changes between 2002 and 2008 were also described. (Chikanda 2005). It became difficult to avoid the unpredictable monetary policies that resulted in financial decline and brain drain across the countries health and educational industries. Employees from other economic industries left no choice except to leave the nation.

### **2.2.1.2 Low Wages for Local Workers**

Because of the overwhelming amount of low-skilled and trained external employees muddled in the sector, the construction industry is already unattractive. Easy access to inexpensive overseas workers ' supplies indirectly lowers local workers ' salaries. Also, overseas workers ' desire to take low salaries and the problem has been exacerbated by poor working conditions by further depriving local workers of their wages (Narayanan and Lai, 2005). This also made local staff and graduates shy of pursuing careers in the construction industry. The sector then hires more employees from abroad to meet the sector's labour demand when this happens. Low labour costs have resulted in the building industry remaining dependent on foreign employees for many years. The Malaysian Ministry of Human Resources (MOHR) has instituted amnesty programs to repatriate illegal foreign employees to their country of origin; which created labour shortages among tiny and medium-sized businesses (SMEs), building (Human Resource, 2005). Different variables can explain these distinctions between ability levels. Because of economic limitations and lower-income levels, low-skilled immigrants are likely more dependent on being employed

than high-skilled immigrants. Also, for less-skilled immigrants, the likelihood of getting a work offer below one's skill level is smaller. Therefore, it can be anticipated that low-skilled immigrants will be less selective when choosing whether to accept a job or not. On the other side, highly skilled immigrants will rather wait for a work offer that suits their abilities, thus lowering their work rates.

### **2.2.1.3 Labour Shortage**

Since the 1980s, the construction industry has experienced an acute shortage of labour. Meanwhile, labour demand in the construction industry has been steadily growing due to the elevated level of innovations (Serneels, 2007). The gap was filled by foreign employees. However, in times of labour shortage, instead of raising wages and improving working conditions, some employers chose to employ foreign employees to attract local staff (Narayanan and Lai, 2005). Such employers object to minimum wage rates for employee construction as this would lower their competitiveness by raising their wage payments, reducing the overall construction costs. Local employees, therefore, lose out for employment in competition with foreign employees, and local workers' salary rates have stayed small (Shafii et al., 2009). Local employees, therefore, chose to emigrate to gain better salaries. In the building industry, foreign employees have replaced these local employees. Malaysia, which has enormous manpower shortages in the construction industry, could originally fill the vacancies or at least minimize the scale of manpower shortages through the importation of foreign workers. The supply of this extra labour force met the immediate demand for labour that could not be met so rapidly and a "cheaper rate." Moreover, the president of the Master Builder Association of Malaysia (MBAM) also promotes this, the shortage of skilled construction workers is a very significant issue in the construction industry [6]. MBAM also

stated that the acute shortage of skilled construction staff would adversely affect projects under 10MP and ETP[7]. Wage rates have risen in various grades of employees because of the scarcity of labour, but labour supplies have failed to properly boost to meet demand (Sambasivan and Yau, 2007). Migration choices are also a main technique of acquiring abilities for migrants who are either unable to gain access to the same calibre of employment in their home nations or who want to acquire labour market-specific abilities to return home or use them elsewhere. In the latter situation, short-term migration can happen to nations known to have high-quality building and training industries, which then provides migrants higher currency in other labour markets to which they can move (this can be particularly the case in cosmopolitan labour markets with salary levels that tend to discriminate on the basis of the nationality of employees). Such tactics were known to be used, for instance, by some South Asian migrants seeking job in Canada to have 'Canadian experience' on their resumes when they move to the UAE in the long term. The reverse-path (South Asia, UAE, Canada) can also be prevalent for those seeking access to qualified building employment and permanent residency in Canada, where experience working on complicated, large-scale projects in the UAE can be a stepping stone into the Canadian labour market. Such 'transit state' policies are one way of gaining precious knowledge at one location that can then be leveraged to gain upward mobility in other destination countries' labour markets. However, it continues to be studied in greater depth how effective these approaches are. Abdul-Aziz (2001) pointed out that one of the industries strongly dependent on foreign employees in the building industry. The increase in overseas employees is a supply and demand-side driven variables; however, the latter are more important (Lee and Sivananthiran, 1996; Yusof and Jamil, 2011). The effects of external employees on the Malaysian construction industry has been both positive and negative. However, the current study focuses only on adverse effects.

There were 1,470, 900 foreign workers in 2004; by 2009, the number had swelled to 2,100,000 Having promised to decrease the inflow by the government. International labour migration has become an increasingly important phenomenon and a very significant effect in most developing countries over the past three decades (Adi, 2003). migrants—both temporary and permanently settling—have long been a structural facet of construction markets (Wells 1996). Newcomers to towns have also tended to play a vital role in building them throughout history, whether as wage employees or as casual residential builders. Newcomers to towns have also tended to play a vital role in building them throughout history, whether as wage employees or as casual residential builders. Several variables, including the seasonal and project-based personality of building, often cause the heavy dependence of the sector on migrant labour. It is also partly due to the distinct spatial characteristics of the building process; in search of lower labour, input or transport costs, construction cannot be shifted elsewhere similar to sectors such as mining, agriculture or consumer services. Furthermore, the lack of standardized production in construction, where the worksite and the product are never the same, is another reason that the sector tends to seek migrant labour to reduce the cost of a process of production that remains highly labour-intensive. In addition to bringing vital abilities and knowledge to the building labour markets of many towns, immigrants and temporary migrants working in the trade were often important for building because they took employment that no one else likes to do. Much building has long been and continues to be, filthy, dangerous, poorly paid and, progressively, low-status job for many nationals in quickly increasing economies. According to the Building and Wood Workers ' International (BWI) worldwide union federation, the use of migrant workers has significantly risen over the past several centuries and is anticipated to continue. Indeed, as other study shows, building is not only an important industry to

incorporate migrant and immigrant employees, but also an increasing industry (Erlich and Grabelsky 2005; Wells 2012).

International migration has been the main factor in the segmentation that often occurs on local labour markets, where different skilled, precariously resident or illegalized employees have allowed elevated rates of labour market segmentation and salary differentials to be established on local labour markets.

In local labour markets where there are few laws to prevent salary differentials (or where they do exist, they are not implemented), salary hierarchies based on sex, religion, ethnicity, nationality and/or ethnonationalism may be prevalent in local labour markets (Wells 1996). Racialized and/or nationalized salary hierarchies, combined with elevated rates of ethnonational labour market segmentation, have been discovered to occur on local labour markets across the worldwide North and South, including in nations such as Canada (Buckley and Reid Musson, forthcoming), Malaysia (Abdul-Aziz, 2001), Portugal (Malheiros, 1999) and Singapore (Debrah & Ofori, 2001). In general, the segmentation of the labour market and the increasing integration of migrants into the building sector have gone hand in hand with the deepening insecurity and casualization of building job globally over the past three centuries. Building labour market segments such as residential construction have been subject to severe de-unionization in Europe and North America (e.g. Greer et al. 2013). Meanwhile, in many other locations, including Kuala Lumpur (Abdul-Rahman et al. 2012) and Singapore (Debrah and Ofori 2001), the deregulation of the building industry has resulted to enhanced migration flows into the building industry and the subsequent emergence of a highly flexible, insecure and internationalized workforce in the building business. In the coming decades, entrenched forms of labour market segmentation

may be subject to change as some migration networks begin to transform as geographical patterns of economic growth change, and demand for building labour changes to new locations. For instance, Santoso (2009) states that migrant labour outflows from Southeast Asian countries have moved somewhat from migration to the Middle East, and especially the Gulf countries, to an "intra-Asian flow" as fast economic growth has occurred in nations such as Thailand and Malaysia. Other variables, such as the perception of employers that migrants are both simpler to handle and more ready to work than their domestic colleagues, were in turn variables in migrant labour in nations such as Malaysia (Abdul-Aziz 2001, Lee and Sivananthiran 1996).

## **2.3 THEORETICAL REVIEW**

### **Theories on Migration of Labour Force**

Before setting up a migration model, it is helpful to differentiate briefly between the most frequently invoked kinds of explanations. Scholars split international migration theories into three primary kinds that do not exclude each other.

#### **2.3.1 Macro theories**

It highlights the anatomical, objective conditions that operate as 'push' and 'pull' migration variable typically include financial conditions such as unemployment, low salaries or low per capita income relative to the destination country. Migration legislation and the situation of the labour market would include pull factors in the receiving countries. Unintentional displacement would be explained by factors such as state repression or fear of rampant violence or civil war. Most theorists agree that forced displacement and so-called "pioneer" voluntary migration-i.e., such macro conditions are crucial to explain. First persons or groups

of migrants from a given country or region. However, they are less well equipped to account for the persistence of voluntary migration despite changes in economic conditions or legislation in receiving countries. Nor can they explain why so much migration takes place from relatively few places: there are similar push variables in many potential sending areas, but while in some cases they generate mass emigration, there is almost no mobility in others (Faist, 2000).

### **2.3.2 Meso Theory**

Meso theories can explain these discrepancies. They dismiss the macro focus is on pushing and pulling factors instead of placing migration flows within a complicated system of state-to-state connections (Bilsborrow & Zlotnik, 1994). For meso theories, two concepts are especially crucial: systems and net. In a movement scheme, i.e. a group of movement is intended to occur in countries linked by economic, political and cultural connections as well as by migration flows. Thus, movement-generating circumstances are understood rather than a set of objective indices as the dynamics of relationships between two fields.

Networks involve a collection of individual and collective actors (real and potential migrants, their families, businesses, religious or social organizations etc.) and the various cultural and symbolic links that connect them (Faist, 2000). Once established, networks can have a significant effects on the guidance and amount of migration flows, providing resources to help people move around, such as information, contacts, economic and social support.

The funds flowing through networks make shifting other members of the network a more attractive and feasible option and can generate what has been called "chain migration": the serial, large-scale migration phenomenon from one region to another region. This meso level

is less relevant to explaining forced displacement, although it can help justify the choice of destination for refugee schemes and networks can make it easier to achieve or gain safety at particular places, or more attractive as destinations.

### **2.4.3 Micro Theory**

Micro theories focus on factors that affect individual migration decisions, analyzing how potential migrants weigh the various costs and benefits of migration. Costs may include the financial and psychological resources invested in moving and integrating with the target country, while benefits may include higher wages or physical security. Micro theories often draw on the theory of rational choice, which makes some contentious statements about how and why choices are made by people.

The micro view, however, is a significant level of assessment to show how people process internally and evaluate the different circumstances that generate migration. Therefore, it offers a type of control or control for the theories of macro and meso, describing how people make choices based on objective or relational variables.

To summarize the comparative advantage of these three methods, could be summarized that macro theories give the greatest acumen into the variables that originally triggered voluntary migration by "pioneers," and the best explanation for forced displacement should also be provided. The best explanation for Meso theories is a voluntary migration persistence and why it happens in some fields only. It can also assist clarify the destination of both volunteer choices and compelled migration. Lastly, micro theories assist to demonstrate how to translate macro and meso variables into persons moving choices. This theory typology offers a helpful context to explain external movement and is an encouraging point to star for

building a particular theory of migration causes. The job here, however, is to look at policy reactions that can assist to mitigate these causes. This will involve a distinct type of typology, depending on the distinct possible rates of interference. Here, the distinction between four distinct kinds of causal variables is helpful: root causes, proximate causes, enabling circumstances, and sustaining factors (Lund & Mehler, 1999). Root causes refer to the structural or systemic circumstances underlying the migration or compelled displacement preconditions. They combine a mixture of macro and meso variables in terms of the theories mentioned above, such as financial underdevelopment, a fragile state, serious social fragmentation, and migration structures that shape relationships between sending and receiving nations. Near causes refer to the instant circumstances that trigger movement that can be macro or meso again: escalation of violent conflict, individual persecution, collapse of local livelihoods, or a fresh chance overseas. Enabling circumstances make it possible to travel, enter and remain in destination nations. They will include variables such as funds, legislation, border controls, opportunities for travel, and networks. Lastly, sustaining factors promote persistent or chain migration from specific locations or nations of origin. These are almost solely a migration network function. As we shall see, all four causal categories involve distinct kinds of policy reaction.

## **2.4 EMPIRICAL REVIEW**

### **2.4.1 Effects of the Influx of Foreign Construction Labour Force**

#### **2.4.1.1 Economic Implications**

Although the channels transmitting migration's welfare effects on the target nations are well recognized in the literature, the effects are quantified by a very restricted quantity of

empirical evidence from the South. Thus, box 1 presents a short overview of the proof from the North. People's migration advantages both the sending nation and the receiving nation, just as international trade advantages (van der Mensbrugge & Roland-Holst 2009). The welfare increase for the nation of destination is due to immigration increasing labour supply, which improves jobs, manufacturing and thus GDP (Ortega and Peri 2009). Immigration was also discovered to boost the productivity of the host economies by contributing to development by migrants (see box 1). Another way immigration improves productivity is by freeing up the local workers to migrate to greater productivity jobs. Despite the advantages of immigration, the public and policymakers at the destination nation generally think that immigration can become a financial burden because, despite the proof to the contrary, immigration is feared to lead to job losses, heavy burden on public services, social tension and enhanced crime (UNDP 2009). The primary channels for the target countries' adverse economic results are enhanced employment competition, supposedly bringing down local salaries and the enhanced financial burden of caring for an increasing immigrant population. It is necessary to integrate incoming migrants into the labour force, which increases competition for current employment. Especially in moments of financial downturn, the general public and policymakers tend to be more concerned about the potential adverse effects of immigration on the possibilities of indigenous people, and immigrants can be used as scapegoats to blame for increasing unemployment, although there is no powerful proof to demonstrate that immigrants are taking up indigenous employment (Papademetriou et al. 2009). A prevalent concern is also a downward pressure from an influx of migrant workers on wages. Nevertheless, the aggregate effect of immigration on salaries in the OECD countries is very low both in the brief and long term (Longhi et al. 2005), and comparable results have been confirmed by Ratha and Shaw in the context of South-South migration

(2007). Simulations of van der Mansbrugge and Roland-Holst's general equilibrium model (2009) indicate that decreasing migration will not necessarily result in greater salaries for indigenous employees in receiving nations, as reduced rates of migration will also reduce the relative return to assets, which in turn will bring downward pressure on salaries.

#### **2.4.1.2. Social Effects**

In addition to enhanced labour market competition, growing migrant inflows pose a challenge to inclusion in all fields of social life. However, immigration management strategies are missing in many developing countries, while control of the same does not curtail migrant inflows owing to scarce funds, poor administrative ability, and porous boundaries. Some cross-border migration is often commonly recognized (Adepoju, 2005), but immigrants are sometimes treated as unwanted foreigners even from neighbouring nations (Crush, 2000). Sometimes this failure to control migration and incorporate newcomers has resulted in drastic behaviour and excellent human pain.

The failure of inclusion has sometimes resulted in huge expulsions of migrants, mostly in the South, when the economy is already under pressure. For example, in 1983, the Nigerian government expelled more than 2 million immigrants primarily from Ghana owing to a national economic crisis, for which the aliens became scapegoats (Jacob et al. 2006). Recent examples of forced repatriation can be found in both the North and the South: in 2008 alone, the United States deported more than 350,000 immigrants and 300,000 South Africans (UNDP 2009). The scenario in Cote d'Ivoire, where the stripping of immigrants of some of their freedoms created chaos that led the formerly stable country to the verge of an internal conflict, demonstrates that the South is increasingly intolerant of

foreigners (Adepoju 2003, UNDP 2009). These cases reinforce migration and inclusion policies in developing nations as they host big numbers of immigrants.

Access to excellent income-earning possibilities overseas is undermined for some migrants seeking jobs in building even before they leave their nation of origin. Unlawful recruitment charges and official or informal debts obtained from individual migrants are among the hazards and vulnerabilities connected with the migration process. Besides, bad or false job market data abroad and the precarious legal status generated by moving overseas to work further improve the hazards that migrants bear.

For many building employees, debts are a defining characteristic of the international migration process. These debts may be incurred for payment of migration expenses through official banks or unofficial moneylenders, including charges charged by labour officials that may or may not be forbidden by law or under bilateral "manpower" contracts.

For instance, studies in Kerala, India (Buckley 2012) discovered that poorer migrants tended to incur huge debts to pay local labour brokers illegally 'recruitment charges' to secure a building job in the Persian Gulf region (see also Rajan & Subramanian, 2005). They often had no option but to turn to casual moneylenders who charge interest rates much higher than official banks because poorer migrants tended to lack collateral (often in the form of a family home) to obtain a low-interest loan to cover these expenses. Interest can be extraordinarily high in casual debt and often involves monthly debt payments. Debt-financed migration—and particularly high-interest types of casual debt—tends to lock migrants and their relatives into cycles of indebtedness that can also encourage more family members to migrate to repay elderly debts, thus perpetuating a cycle of extracting value from migrants that may be greater than employees can earn (Stoll, 2010).

Despite the cosmetic political and economic modifications brought about in the nation, Professionals in all economic sectors continue to migrate to neighbouring countries. The inability of the country to derive advantages from labour outflow has led in public officials castigating the international community for crippling the economy of Zimbabwe by hiring its extremely qualified experts. For example, in the (Chikanda, 2005) study, the Zimbabwean government was cited castigating the move made by countries in the region to employ Lecturers, educators, nurses, and doctors from Zimbabwe. Labour migration has been defined as having catastrophic implications in the pillars of the economy, the education and health industries. In regards to this problem (Dessler, 2003; Nabwowe, 2007) noted that outflows of skilled labour have always been regarded negatively often castigating extremely skilled professionals in the quest for plush pastures in developed countries Statistics based on national accounts, sectors like agriculture has a significant donor to Gross Domestic Product (GDP). Over the same era, the production industry decreased by more than 8% and the mining industry also witnessed an average decrease of 7% per year. Scarcity of direct external investment (Foreign Direct Investment), external currency scarcity, reduction of skilled labour and unstable power flow (Central Statistical Office, 2008) are the causes of these main sectors ' bad results. An alarming amount of qualified as well as unqualified individuals who have migrated to other nations have been shown. Therefore, it can be deduced that an outrageous mass of individuals have left the nation for multiple reasons. Migration of qualified health and education practitioners has led to bad delivery of services. This scenario has risen the expense of seeking fundamental services for Zimbabweans in neighbouring nations. Those who have not been able to resort to indigenous knowledge systems. The migration of science educators in the education sector led in a direct shortage

and by hiring untrained professors, the government attempted to fix the issue. The complete amount of individuals who left the nation was extremely qualified, including medical staff, accountants, nurses, technicians and educators (Teveran & Zinyama, 2005). Migration of highly skilled labour has also resulted in an increase in service fees to the extent that most service charges went beyond many people's reach, hence the bulk of migrants were economically active, thus depriving the nation of its labour force.

#### **2.4.1.3 Technological Advancement**

There is no doubt that migrant employees are a fundamental source of fresh information, abilities and expertise for labour-receiving nations in many locations. Meanwhile, other nations see short-term migrant labour as an instant alternative to skill shortages due to decades of decreasing investment in training programs and an eroding knowledge base as skilled retirees. This transfer of skills and value does not focus exclusively on the industry's higher-wage and 'higher-skilled' occupational sections. Iskander, Lowe, and Riordan (2010) demonstrated the significant innovations made by migrant and immigrant men employed in the residential construction sector in their research in the United States.

They show the basic methods the building process has been reshaped by these employees. They also claim that the transfer of understanding of employees to these labour markets was both under-researched and partially under-theorized since most employees are informally employed and lack access to association links such as unions that would make such contributions more visible.

While migration can be a means of obtaining better salaries, skill acquisition possibilities and precious hands-on experience, migration to building economies also often includes

shouldering a host of hazards and uncertainties that can undermine the access of migrants to fair, secure and decent jobs, as well as their capacity to leave or challenge exploitative or unwanted circumstances of jobs. The three wide and interlocking types of danger and insecurity outlined in chapter 3.3 below can shape the building experience of some migrants: migration debt, information deficits, and precarious legal status. These dangers are not exhaustive, nor do they characterize all migrants' trading experiences. Rather, they are intended to highlight the complicated ways in which access to quality job for building workers is influenced in part by the spatial and organizational nature of modern building job, as well as by social relations that extend far beyond employment agreements, workplace circumstances or even domestic immigration regimes – geographically and politically. In terms of social, economic and political variables, migration can impact a nation, and many basic tensions are underlying attempts to handle external movement in a globalizing globe (Yap, 1999). Despite the fact that governments have made endeavours to direct movement expenses, either by disallowing them or setting expense plans, work organizations who enlist specialists based on erroneous or deceiving data implies that for numerous vagrants, paying these expenses and going into obligation are displayed as the as it were way emigrating abroad to earn compensation within the development division. The general absence of labour migration legislative frameworks favourable to individual employees has been linked to the proliferation of official or informal labour organizations perpetuating these debt cycles (Raghuram 2005). It has also been shown that incurring debts to pay illegal charges feeds migrants with exploitative methods and precarious legal conditions, amplifying the hazards of unfree, compelled or bonded labour (Strauss 2012), as mentioned in Section 3.6. Finally, the harmful effects of migration debt on the economic welfare of migrants can also be

exacerbated by another trans-border danger: the exchange rate of currency. While earning cash in a stronger currency is often a migration driver for some migrants who plan to pay a part of their salaries home, unfavourable currency exchange rate modifications can also happen and are influenced by geopolitical and geoeconomic forces far beyond the control of migrants. Thus, irrespective of how favourable the circumstances of jobs of a worker maybe when they move, exchange rates are just one of the unexpected circumstances that can considerably erode the earning power of global migrants and undermine their capacity to pay both salaries and migration debts. A second dynamic shaping the choice to migrate as well as the Transboundary dangers of building migration is that global labour markets are often deeply asymmetrical. In other words, while employers and recruiters tend to have more precise data about the staff they are planning to employ (often owing to the first-hand understanding of the groups in which they are recruiting), workers and their families may experience a substantial information gap when choosing to migrate. From incorrect or partial data provided by employers to deliberate misrepresentation by unscrupulous recruiters, it can be almost impossible for employees themselves to get a precise feeling of the work they are going to do, what their real salaries and working circumstances will be, how long it will take to pay off the migration debt, what kind of employer they are going to work for and what the results will be. Finally, in addition to migration costs and information deficits, a third trans-border risk relates to the proliferation of temporary and probationary forms of residency for migrants in destination countries seeking to attract construction labour. For instance, while labour market segmentation in building across Europe and North America was typically understood through the sector's depiction as a ' quintessential immigrant niche ' (Rath, 2002), this framing often engaged focusing on how permanently foreigners settle –

immigrating through linear A / B immigration trajectories that culminate in permanent residency or citizen. However, much of the latest building literature shows the progressively varied, non-linear, circular and 'probationary' circumstances of temporariness in rapidly deregulating industries (Goldring and Landolt 2012), including the development of casual or non-contract job for migrants, the proliferation of limited term visas and job permits for overseas traders, and intra-company job permits. These changes in immigration policy require us to pay more attention to how temporary and unsafe forms of legal status are generated in many nations receiving labour, and the effects this has on the connection between building workers and their employers. For instance, the development of legal status for migrants in which the capacity of migrants to live in the nation depends on their ongoing jobs with a particular employer can deeply shape the capacity of employees to challenge poor working conditions and their labour market mobility in the nation of destination. Migrant status may also impose outstanding constraints on the entitlements of building migrants to state aid such as skills training or unemployment insurance, their right to unionize or their protection under local labour laws and minimum wage legislation. Due to a multitude of trends, the increasing significance of concentrating on temporary and unsafe international migration. First, in nations with strict legislation that mainly prohibit permanent residence or citizenship rights for migrants (such as the UAE, Qatar, Saudi Arabia, and Singapore), demand for migrant building work is increasing. Second, there is increasing demand for migrant workers in nations that are actively re-engineering domestic immigration law to be more temporary and promote circular migration among tradespeople (such as Canada and Australia). Thirdly, multinational subcontractors and contractors are increasingly using posted intra-company labour on a project-based basis, thereby shaping an

extremely vibrant labour market for globally mobile, experienced experts and extremely qualified tradespeople as demand for their abilities is growing globally and companies are bringing in their low-cost manual employees who may be exempted from certain local labouratories. Foreign workers helped relieve serious labour market imbalances in the construction industry during economic growth and industrialization.

## **2.5 SUMMARY**

It cannot disagree that external employees were of excellent help in overcoming the labour shortage in the building market with the countless advantages that a nation derives from being economic, social and political. However, by awareness of over-reliance on external employees and the adverse effects of external employees, enforcement policies are being suggested to reduce the country's reliance on external employees, such as introducing industrialized construction technologies and attracting more local employees to the construction industry. The government could also minimize these adverse effects by enforcing levies, enhancing governance and migration policy structures, diversifying workers ' sources, and eliminating illegal migration. Together, these policies can simultaneously affect more local employees to enter the sector, thereby reducing the dependence of building companies on illegal employees at lower cost.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

This explains the different techniques used to collect research information. It describes the population of the research, sample size and method of sampling.

#### **3.2 RESEARCH STRATEGY AND DESIGN**

There are numerous research designs including survey, case study, experiment, grounded theory, action research, ethnography, and archival analysis. But a case study research design will be used in the present study (Fellow and Liu, 2008). This research design allows one to gather large data from several respondents. In the current study, this method will help to gather large data from construction professionals on construction foreign labour force influx on project delivery in Accra. The effects of the construction foreign labour force influx shall be identified. The current study used a quantitative research approach. Concerning this method, data is mostly in numeric form, therefore, making it easy to apply statistical tests in the bid to analyze the data. Statistical analysis enables the investigator to derive from study information significant facts. Moreover, quantitative studies employ the use of data collection tools such as questionnaires which are easy to deal with (Leedy and Ormrod, 2001). In other to be able to make statistical inferences, the current study will employ a quantitative research design.

#### **3.3 POPULATION**

The study's population is defined as the universe of all sample selection units (Bryman,

2004). In the present research, the target population (research respondents) consisted of project managers, quantity surveyors, architects, engineers, project managers, etc. Since the scope of study was limited to the Accra Metropolis, these respondents will be selected from construction Sites in this area. The population will be selected from D4K4, D3K3, D2K2 & D1K1 construction firms in Accra.

### **3.4 SAMPLE AND SAMPLING PROCEDURES**

Several variables influence the sample size needed for the research, including the purpose of the research, population size, and level of accuracy, level of confidence or danger, and degree of variation in the measured characteristics (Glenn, D.1., 1992). According to Glenn (Glenn, D.1., 1992), it is possible to determine the sample size for research using (a) numbers in published tables (b) sample size of comparable research (c) consensus for tiny populations and (d) formulas. Since it was difficult to know all on-going projects in the Accra metropolis, the current study purposively selected 50 construction project sites. On each site, the project supervisor was selected.

### **3.5 DATA COLLECTION TECHNIQUES**

#### **3.5.1 Sources of Data**

Primary and secondary data were gathered by the research. The secondary data was gathered from a prior thesis, book, journal publications, etc. through a literature review.

The primary data, on the other hand, was collected from the field survey.

#### **3.5.2 Data Collection Instrument (Primary Data)**

A structured questionnaire was used to collect primary data for the research. There were 2 components in the questionnaire. Part one captures the background information of the

participants, such as gender, age, position, jobs and experience, while part two collected all the appropriate questionnaires needed to accomplish the study's aim, specifically section A of part 2 required the respondents to identify the most prevalent typologies of foreign labour force influx on construction sites whereas section B & C require the respondents to respond to questions relating to the effects of the labour force on project delivery and the Ghanaian construction industry as a whole. Ranking their answers on a 5-point Likert scale was requested of the participants. For instance, questions on the effects of the labour force were scored on a five-point scale where 1 - None, 2 – Very small 3 – Small 4 – Large 5 – Very large. The questions on the questionnaire were mainly close-ended. This helped to ensure uniformity in the answers. A copy of the questionnaires is attached to the appendix.

### **3.5.3 The Fieldwork**

The questionnaire was self-administered by the researcher and 3 assistants. These three assistants were taken true training on how to administer the questionnaires. The data collection team visited 35 construction project sites in the Accra metropolis. On each site, the data collection took place at the break time (i.e. from 12-1 pm). The data was collected in 1 week in the month of August 2019. There were a total of 50 questionnaires sent out and received successfully. Of this number 8, however, were incomplete and thus excluded from the analysis of the data.

### **3.6 DATA ANALYSIS TECHNIQUES**

The respondents' answers were evaluated so that the topics could be discussed. SPSS (Social Scientist Statistical Package) version 16 was first used to collate the answers. The questions on the respondents' population features and overall details were subsequently evaluated into

percentages. In graphs, charts, and tables, the findings were further provided. The Relative Importance Index (RII) evaluated the ordinal data.

The formula is as follows:

$$\text{Relative Importance Index (RII)} = \frac{\sum W}{AN}$$

Where W = Weights provided by participants to each variable, ranging from 1 to 5;

A = the maximum weight in the research (i.e. 5)

N = total sample number

### **3.7 ETHICAL CONSIDERATIONS**

The chosen respondents' prior consent/permission was requested and the research aim explained to them. This enabled the respondents to feel free and answer the questionnaires with all frankness without hiding any information. The privacy, anonymity, and confidentiality of the responses were highly treated. To minimize potential challenges, efforts were made to keep the questions in the questionnaire in simple language, devoid of technical terms. Any piece of document used for the work was appropriately referenced to avoid plagiarism.

## **CHAPTER FOUR**

### **RESEARCH RESULTS AND DISCUSSION**

#### **4.1 INTRODUCTION**

This section provides the research outcomes and the literature findings discussions. The discussions deal with the respondents' population features and the study results based on the objectives of the study.

## 4.2 BACKGROUND OF RESPONDENTS

This chapter provides the respondents' background data specifically their position within their organization, years of working experience and professional affiliation. These statistics are relevant as they determine the credibility of the respondents. From the outcomes shown in Table 4.1, most of the participants (54%) were Quantity surveyors followed by Engineers (21%) and Project Managers (14%). The remaining 11% were Architects. These respondents were found to belong to various professional bodies such as the Ghana Institute of Surveyors (GhIS), Ghana Institute of Architect (GIA), Ghana Institute of Engineers (GhIE) Project Management Institute (PMI) and Institution of Engineering and Technology, Ghana (IET). It was discovered for their years of work experience that most participants (90%) have over 5 years of work experience. Only 10 per cent of them have work experience of less than 5 years. The statistics above demonstrate sufficient justification for the credibility of the participants chosen for the research as Fellow and Liu (2008) asserted.

**Table 4.1: Background of Respondents**

Sn	Respondent Profile	Frequency	Percentage
1	<b>Profession</b>		
	Site supervisor	28	67.00
	Project Manager	8	19.00
	Quantity Surveyor	5	12.00
	Others	1	2.00

	Total	42	100.00
2	<b>Years of Experience</b>		
	(a) 1 – 5 years	4	10.00
	(b) 6 – 10 years	25	60.00
	(c) 11 – 15 years	9	21.00
	(d) 16 – 20 years	3	7.00
	(e) Over 20 years	1	2.00
	Total	42	100

(Source: Field Survey, 2019)

#### **4.3 TYPOLOGIES OF FOREIGN LABOUR FORCE INFLUX ON CONSTRUCTION SITES**

The current study sought to explore the typology of foreign labour force influx on the construction site in the Accra Metropolis. First and foremost, it was found out that the majority of the sites visited, the total on-site labour force were more than 20 workers.

Again from this number between 12 – 15 % were foreign labour force. The above statistics mean that the foreign labour force make up a significant percentage of on-field construction workers. This outcome confirms Thomas ' early report (2004) that foreign labour adds substantially to the development of many nations including Ghana's construction industry.

Further analysis of the results of the study revealed that there are various typologies of skilled and unskilled labour force found on construction sites in the Accra Metropolis. From the results, it was found that the top five most prevalent labour forces are carpenters, experts in

POP finish, masons, unskilled labourers, and painters. It was found that the carpenters and POP experts migrated mainly from Togo and Benin. This result is not surprising as Sambasivan and Yau, (2007) noted that the Ewes/Voltarians in Togo and Benin are experts in carpentry works and POP ceiling. They are reported to be the best in that trade in the whole of West Africa according to Abdul-Aziz (2001).

Besides the above, the research also discovered that several unskilled labour forces were also migrating from neighbouring nations like Togo, Benin, Burkina Faso, and La Cote D'voire. These people migrated to Ghana to seek for job. Painters and masons were also found to be common on construction sites in the study area. Besides the category of labour force such as plumbers, tilers, steel benders and drivers are also common on most of the sites visited. The above results confirm the early report by Abdul-Aziz (2001), who stated that one of the industries that depended strongly on various foreign employees in the building industry. Adding to the above, Abdul-Aziz (2001) claimed that both supply-side and demand-side variables drive the increase in foreign employees.

**Table 4.2: Typologies of foreign labour force influx on construction sites in Accra**

Sn	Typologies of foreign labour force influx	MSR	Std.	Rank
1	Carpenters	3.78	1.461	1 <sup>st</sup>
2	Experts in POP	3.76	1.287	2 <sup>nd</sup>
3	Masons	3.46	0.885	3 <sup>rd</sup>
4	Unskilled labourers	2.94	0.890	4 <sup>th</sup>
5	Painters	2.90	1.488	5 <sup>th</sup>
6	Tilers	2.66	1.520	6 <sup>th</sup>
7	Plumbers	2.38	1.354	7 <sup>th</sup>

8	Steel benders	2.20	1.245	8 <sup>th</sup>
9	Drivers	2.18	1.380	9 <sup>th</sup>
10	Electricians	1.86	1.050	10 <sup>th</sup>
11	Welders	1.96	1.245	11 <sup>th</sup>
12	Experts in glazing	1.94	1.077	12 <sup>th</sup>
13	Experts in steel construction	1.82	0.962	13 <sup>th</sup>

Source: Field Survey August 2019

#### **4.4 POSITIVE EFFECTS OF THE FOREIGN LABOUR FORCE ON CONSTRUCTION PROJECT DELIVERY**

As stated by Adi (2003), in the last three decades, global labour migration has become a phenomenon of increasing importance and a very significant effect in most developing countries. These labour forces have substantial (beneficial or negative) effects on the delivery of building projects. One of the objectives of the current study was therefore to examine the positive effects of foreign labour force on construction projects delivery in the Accra Metropolis. From the results gathered from the study respondents, it is evident that foreign labour force on construction sites in the Accra Metropolis effects positively on project delivery. From Table 4.3, the top three (3) effects are the transfer of technology, the experience of foreign labour force enhance performance and increase in productivity.

##### *Technology Transfer*

Technology transfer is considered the topmost effect foreign labour force have on construction project delivery. Explaining this, some of the respondents revealed that some local artisans learn POP ceiling finish, plasterboard construction among others from migrant workers from Togo and Benin. Moreover, the local artisans sometimes draw from the experiences of the foreign labour force. The above findings agree with Wells (2012) and

Erlich and Grabelsky (2005) who noted that technology transfer is a major positive effect in construction project delivery.

*The experience of foreign labour force enhance performance*

The experience of a worker is directly proportional to his/her productivity according to Debrah & Ofori (2001). The respondents also indicated that the experiences of some of the foreign labour force contribute to project delivery. Thus, there is on the job training for the workers.

**Table 4.3: Ranking of the positive effects of foreign labour force on project delivery**

	Effects	RII	Rank
1	Foreign labour helps in the transfer of technology	0.945	1st
2	Experience from foreign labour enhances performance	0.923	2nd
3	Foreign labour increases productivity	0.854	3rd
4	Foreign labour influences locals to adhere to safety practices.	0.504	4th
5	Foreign labour foster teamwork amongst locals	0.456	5th

Source: Field Survey August 2019

**4.5 NEGATIVE EFFECTS OF THE FOREIGN LABOUR FORCE ON THE GHANAIAN CONSTRUCTION INDUSTRY**

Besides construction project delivery, there is another effect of foreign labour force in the construction industry as a whole. In a study by Shafii et al., (2009) foreign workers have both positive and negative effects on the construction industry. Thus one of the objectives of the current study was to examine the possible negative effects of foreign labour force on the

Ghanaian construction industry as a whole. The results of the study as indicated in Table 4.4 revealed that despite the overwhelmingly positive contribution of foreign labour force to project delivery there are some negative effects on the Ghanaian construction industry. Some of the key negative effects include over-dependence on foreign workers which consequently leads to unemployment for the local artisans. The above finding agrees with Lai (2005) and Narayanan and Lai, (2005) who noted that some employers chose to employ foreign workers in times of labour shortage, rather than raising wages and improving working conditions to attract local workers. Such employers object to minimum wage levels for construction workers as this would reduce their competitiveness by increasing their wage payments and thereby increases overall construction costs. Hence, local workers lose out in the competition with foreign workers for jobs, and the wage rate for local workers has remained low.

It was also reported by the respondent that there is the danger of employing workers with bad behaviours who engages themselves in illegal activities. The opinion of the study respondents echoes that of Shafii et al., (2009). Notwithstanding the above, the study respondents also noted that there are some negative effects foreign labour force may have on the Ghanaian construction industry. This includes over-dependence on foreign labour force which may limit job opportunities for the locals in the short term, where as in the long term it may result in a mass importation of labour for such special skills for those peculiar aspects of building construction in this country as shown in the table below.

**Table 4.4: Ranking of the negative effects of foreign labour force on the Construction industry**

	Effects	RII	Rank
1	Over-dependence on foreign labour	0.966	1 <sup>st</sup>
2	Foreign labour increasing criminal activities on site	0.945	2 <sup>nd</sup>

3	Foreign labour reduces employment opportunities for the locals	0.920	3 <sup>rd</sup>
4	Foreign labour influences locals to revolt over issues they wouldn't have revolted	0.854	4 <sup>th</sup>
5	Foreign labour work without permit as required by law	0.645	5 <sup>th</sup>
6	Local labour become less interested in working with foreign labour	0.524	6 <sup>th</sup>

*Source: Field Survey, August 2019*

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATION**

#### **5.1 INTRODUCTION**

This research which mainly delves into the effects of foreign construction labour force influx on project delivery in the Accra metropolis and Ghana as a whole is divided into five sections. Chapter one captures the main introduction to the research. The conceptual review, theoretical review and empirical review were captured in the second chapter (chapter Two) In Chapter three, the method employed in the study covering the research design techniques and strategy were captured. The analysis and discussions on the findings of survey was introduced in chapter four.

This section provides a summary of the main results as well as the conclusions and suggestions taken in the present research. Future directions for studies will also be outlined.

## 5.2 SUMMARY OF FINDINGS

The following are the study's main results following the objectives of the research. ***Objective***

***1: To identify the construction labour force typologies prevalent among foreign labour force influx***

It was found that the typologies of foreign labour force commonly influx on the construction sites in the Accra Metropolis were Carpenters, Experts in POP, Unskilled labourers, Painters, Tillers and Plumbers. Prior to the study, most construction professionals were of the view that experts in POP were the most common foreign labour on our construction site, however the results from the study proved otherwise where it became evident that Carpenters were rather the most common on the various construction sites in the Accra Metropolis and for that matter the entire nation at large.

Experts in POP rather followed the Carpenters as the second most common foreign labour force influx on the various construction site in the Accra Metropolis. Surprisingly it was found out that the third most common foreign labour force found at the various construction site were foreigners who entered the country and to our various construction sites without any skill, hence works as helpers to the skilled labourers. Painters, Tillers and Plumbers followed respectively.

***Objective 2: To determine the positive effects of the foreign labour force on construction project delivery.***

The present research discovered that foreign labour force has beneficial effects on project delivery on building located in the Accra Metropolis such as transfer of technology, increase in productivity and project performance enhancement. It was found out that most of the respondents from the various construction sites visited believes and testified that transfer of

technology is the topmost benefit enjoyed by the firms who engages these foreign labour force at their various sites. Again it was discovered that the construction companies that engages these foreign labour force enjoys increases in productivity as the foreign labour motivates the locals in raising their output capacities as the presence of the foreign labour force generate positive competition amongst the local and foreign labour force in discharging their duties at the various construction sites. Thirdly, it was found out that the experiences of the foreign labour force enhances project performance as testified by the respondent. The local labour force usually draw experience from the foreign labour force to better the ways in which they usually would have done their work, hence affecting the entire project performance.

***Objective 3: To examine the negative effects of the foreign labour force on the Ghanaian construction industry as a whole***

With regards to the industry, it was found that foreign labour force influx will have negative effects. The key negative effects as indicated by the respondents of the study were Over-dependence on foreign labour force, increase in criminal activities and the existence of illegal foreign labour force at the various construction sites.

Over-dependence on foreign labour force has the tendency of limiting the chances of the local nationals to secure jobs at the construction sites hence, increase the unemployment rate in the short term even though in the long term, some of the local labour force may have acquired the necessary skill as they work along these foreign labour force. Respondent made it clear that criminal activities such as theft rate on the site with respect to building materials etc. are usually on the increase as these foreigners get employed on site. Generally the foreign labour force will accept a lower wage for similar works which will be turned down by the

local national hence it is the believe that some of these unrealistic wage given these foreign labour force especially the unskilled, fuels their appetite for the thievery on site. Again the respondents indicated that most of these foreign labour force entered the country without the legal means hence there isn't proper documentation such as work permit etc. It is believed that most of these foreign labour force enter the country through unapproved route especially those from the neighboring countries sharing boundaries with us.

### **5.3 CONCLUSION**

The presence of foreign labour force on construction sites have both positive and negative effects on project delivery as well as the construction industry as a whole. Construction firms which integrate these foreign labour force on their constructions site stand the chance of benefiting from technology transfer from these foreigners to their local labour force thereby enriching their already acquired skill which in turn will positively affect their performance and also increase productivity.

The locals will have hands on experience as they draw from the foreign labour force which enhance the ability of the firm to increase profitability, however construction firms must be mindful of the temptation of overly depending on these foreign labour force which will eventually impact negatively on the local labourers chances of securing jobs at the various sites.

### **5.4 RECOMMENDATION**

From the findings of the study, it was evident that foreign force contributes both positively and negatively to construction project delivery.

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

- It is recommended that construction firms should integrate foreign labour force in their day to day practice to benefit from the new technologies these foreign labour force bring from their native countries.
- It is also recommended that construction entities deliberately pair these foreign labour force with special skill with the local labour to draw experience from them so that in the long term, whatever scarce skill these foreign labour have will be passed on to them and others in their firm which will also be transferred to other locals as well.
- Positive competition between the local labour force and the foreign labour force has the benefit of increasing productivity on site, hence the construction firms are encouraged to deliberately create such positive competitions amongst the local labour and the foreign labour force to achieve the best out of them.
- It is recommended that construction entities make a conscious effort to ensure that these foreign labour force they engage at their various site have the necessary documentation with respect to their stay here in the country and the work permit required for them to be employed by them as a construction firm. Theft rate and other criminal activities which occur often when these foreigners are at the site will be reduced greatly since they will be aware that they could easily be traced and brought to book.
- Foreign labour migration are due to several factors where some come to get themselves trained to a certain level before they continue to their destination country which might not be their home country. Some also come in to gain the skill and then go back to their home country to setup their own companies. There are others who

come in to train and work here till their retirement before they go back to their home country. In all of these, it is recommended that periodic research are conducted to establish the levels of these foreigners in the various construction sites and their effects on project delivery and the construction as a whole to notice ahead of time any likelihood of xenophobic attacks as has been recorded by other African countries like the South Africa in recent times.

#### **5.4 LIMITATIONS OF THE STUDY**

This research had geographical limitations in the sense that the study was limited to the Accra Metropolis. This to some extent limits the extent of generalization of the results of the study. The size of the sample population chosen for this study which is relatively small happens to be a delimitation to this work. If this study is being carried out again with larger sample size, the result might be improved than in the current study.

#### **5.5 FUTURE RESEARCH DIRECTIONS**

This research covers the effects of the foreign labour force influx on project delivery in the Accra Metropolis. Similar study can be conducted to examine effects of the foreign labour force influx on the local labour force. Moreover, future studies should extend the scope of the study to the entire nation.

## REFERENCES

- Abadi, M., (2005). Issues and Challenges in Communication within Design Teams in the Construction Industry. PhD Thesis, University of Manchester, UK.
- Abdul R. (2009). Industrialized building systems: The JKR Perspectives. *Malaysian Construction Research Journal*, 4(1): 1-9.
- Abdul-Aziz, A. R. (2001). Bangladeshi Migrant Workers in Malaysia's Construction Sector, *Asia-Pacific population Journal*, 16(1): 3-22
- Abdul-Rahman, H. C. Wang, L.C. Woods and S. Low (2012). Negative effect induced by foreign workers: Evidence in Malaysian construction sector. *Habitat International*. 36: 433-443.
- Adepoju, A. (2003). Migration in West Africa. *Development*, Vol. 46, No. 3, pp. 37-41
- Adepoju, A., 2005. Review of research and data on human trafficking in sub-Saharan Africa. *International Migration*, 43(1-2), pp.75-98.
- Adi, R. (2003). Irregular Migration from Indonesia, in: Battistella G., Asis M. B. (Eds), *Unauthorized and Research Development Centre*, Harare , 2003
- Anaman, K. A., & Amponsah. C. (2007). Analysis of the causality links between the growth of the construction industry and the growth of the macroeconomy in Ghana. *Construction Management and Economics*, 25, 951-961.
- Arditi, D., Elhassan, A., and Toklu, Y. C., 2002. Constructability analysis in the design firm. *J. Constr. Eng. Manage.*, 128(2): 117-126.
- Azam H. N., Abdul-Rahman, H., & Hanid, M. (2009). A literature review of the advantages and barriers to the implementation of an industrialized building system (IBS) in the construction industry. *Malaysian Construction Research Journal*, 4(1):10-14.
- Bilsborrow, Richard E. and Hania Zlotnik (1994), "The Systems Approach and the Measurement of the Determinants of International Migration", Workshop on the Root Causes of International Migration, Luxembourg, 14-16 December.

- Bon.R, & Pietroforte.R. (1990). Historical comparison of construction sectors in the US, Japan, Italy, and Finland using input-output tables. *Construction Management and Economics*, 8, 233 - 247.
- Bon.R. (1988). Direct and Indirect resource utilization by the construction sector: The case of the USA since World War II. *Habitat International*,12(1), 49-74.
- Bryman, A., 2004. Qualitative research on leadership: A critical but appreciative review. *The leadership quarterly*, 15(6), pp.729-769.
- Buckley, M and E. Reid-Musson (forthcoming). “Urbanization as a Bordering Process” In A. Jonas, B. Miller, K. Ward, and D. Wilson (Eds.) *Handbook on Spaces of Urban Politics*. Routledge: UK.
- Buckley, M. (2012). From Kerala to Dubai and back again: construction migrants and the global economic crisis. *Geoforum*, 43(2), 250-259.
- Burgess, R. A. (1979). *Building production and project management*. Lancaster: Construction press.
- Butler C. H. Oglesby, H. W. Parker, G. A. Howell, *Productivity improvement in construction*, McGraw-Hill, New York, 1989.
- C.J Chetsanga and T. Muchenje. *An analysis of the cause and effect of brain drain in Zimbabwe*, 2012
- Castles, S. & Miller, M. (1998). *The age of migration: International population movements in the modern*
- Central Bank Malaysia (2008). *Monthly statistical bulletin*, July 2008: Central Bank Malaysia.
- Central Statistical Office, *Population Census Handbook*, 2010
- Central Statistics Office, *Population Dynamics in Zimbabwe*, 2004
- Chen, J. J. (1998). The characteristics and current status of China’s Construction Industry. *Construction Management and Economics*, 16 711-719.
- Chetsanga, C.J. and Muchenje, T.B., 2003. *An analysis of the cause and effect of the brain drain in Zimbabwe*. Harare: Scientific and Industrial Research and Development Centre (SIRDC).
- Chikanda, A (2005). *Medical Leave: The exodus of health professionals from Zimbabwe*, Migration Policy Series No. 34,

- Construction Industry Institute (CII), 1996. The partnering process-Its benefits, implementation and measurement. Publication 102-11, Austin, Tex.
- Contractors and workers. *International Labour Review*, 135(6), 75-91
- Crush, J. 2000. —The Dark Side of Democracy: Migration, Xenophobia and Human Rights in South Africa. *International Migration*, Vol. 38, Issue 6, pp. 103-133, International Organization for Migration (IOM).
- Crush, J., 1999. Fortress South Africa and the deconstruction of Apartheid's migration regime. *Geoforum*, 30(1), pp.1-11.
- D. Tevera and J. Crush, The New Brain Drain from Zimbabwe, Migration Policy Series No. 29, 2003
- D. Tevera and J. Zinyama, The New Brain Drain From Zimbabwe, Migration Series, 2005, No. 29
- Debrah, Y.A. and Ofori, G. (2001). Subcontracting, foreign workers and job safety in the Singapore construction industry', *Asia Pacific Business Review*, 8(1): 145 – 166.
- Dessler G., *Human Resource Management*, Prentice-Hall, 2003
- Enshassi, A. (2007). Factors affecting labour productivity in building projects. *Journal of Civil Engineering and Management* , 245-254.
- Erlich, M. and Grabelsky, J. (2005). Standing at a crossroads: the building trades in the twenty-first century, *Labour History*, 46(4): 421-445.
- Faist, Thomas (2000), *The Volume and Dynamics of International Migration and Transnational Social Spaces* (Oxford and New York: Oxford University Press).
- G. J. Sweis, "effect of conversion technology on productivity in masonry construction," PhD dissertation, Northwestern Univ., Evanston, Ill, 2000
- Geadah, K. ( 2003). Financing of construction investment in developing countries through the capital market. MS, Massachusetts Institute of Technology, Massachusetts Institute of Technology.
- Glenn, D.1., 1992. Determining sample size. A series of the Program Evaluation and Organizational Development. University of Florida, Publication date; November.
- Goldring, L, and P. Landolt, (eds.) (2013). *Producing and Negotiating Non-Citizenship: Precarious Legal Status in Canada*. University of Toronto Press, Toronto.

- Goldring, L. and Landolt, P., 2012. The effects of precarious legal status on immigrants' economic outcomes. IRPP Study, (35), p.1.
- Government of Zimbabwe, The Promotion of Investment, 1991
- Greer, I., Ciupijus, Z., & Lillie, N. (2013). The European Migrant Workers Union and the barriers to transnational industrial citizenship. *European Journal of Industrial Relations*, 19(1), 5–20.
- Hasan, H. (2012). Investment in Construction. Retrieved Feb. 25, 2013, from IDBG Investment Forum
- Heizer, J. and Render, B.. (1990). Production and operations management strategic and tactical decisions. New Jersey: Prentice Hal.
- Hillebrandt, P. (1985). Analysis of the British Construction Industry, Macmillan, London
- Horner, R. (2001). More for less: Contractors guide for improving productivity in construction. Westminster, London: CIRIA Publications.
- Hua, B.G. (1995). Residential construction demand forecasting using economic indicators: a comparative study of artificial neural networks a multiple regression, School of Building and Estate Management, National University of Singapore.
- ILM, Labour Migration and Development, 1999
- Iskander, N., Lowe, N. and Riordan, C., 2010. The rise and fall of a micro-learning region: Mexican immigrants and construction in center-south Philadelphia. *Environment and Planning A*, 42(7), pp.1595-1612.
- J. Crush, Public Opinion About Immigration: The role of identities, interests, and information, *The Journal of Politics*, 1999, 858-881
- J. Yates, S. Guhathakurta, "International labour productivity," *J. Constr. Eng.*, vol. 35(1), pp. 15-25, 1993. B. McTague, G. Jergeas, Productivity improvements on Alberta major construction projects, construction productivity improvement report/project evaluation tool. Alberta Economic Development, Alberta, Canada, 2002
- Jergeas, G. F. (2009). Construction productivity improvement report, project evaluation Alberta, Canada: University of Calgary.
- Jorge, L. (2008). Investment in construction and economic growth *Economics for the Modern Built Environment* (pp. 94-112): Taylor & Francis.
- K. M. El-Gohary, R. F. Aziz, "Factors Influencing Construction Labour Productivity in

- Egypt,” *Journal of Management in Engineering*, vol. 30(1), pp. 1-9, 2014.
- K. Ricardo, *Labour Market Migration*, 2003
- Kamal, E. M., Haron, S. H., Ulang, N. M., & Bahar, F. (2012). The Critical Review on the Malaysian Construction Industry. *Journal of Economics and Sustainable Development*, 3(13).
- Kaming, (1997). Factors influencing construction time and cost overruns on high-rise projects in Indonesia. . Jarkata: Construction Management and Economics.Routledge.
- Kanapathy, V. (2008). Malaysia. *Asia and Pacific Migration Journal*. 17(3-4), 335-347
- Khalfan, M. M.A., Anumba, C. J. and Carrillo P. M., 2001. Development of a readiness assessment model for concurrent engineering in construction. *Int. Journal*, 8(3): 223-239.
- Khan, R. A. (2008). Role of Construction sector in economic growth: Empirical Evidence from Pakistan Economy. Paper presented at the ICCIDC-I, Pakistan.
- Kwakye, A. A. ( 2000). *Construction Project Administration in practice*. Edinburgh Gate: Addison Wesley Longman Lt
- Lassailly-Jacob, V., F. Boyer, & J. Brachet. 2006. —South-South Migration, Example of Sub-Saharan Africa. Policy Department External Policies, European Parliament.
- Latham, M., 1994. *Constructing the Team*, Final report on joint review of procurement and contractual agreements in the UK construction industry. HMSO, London.
- Lee, K. H. & Sivananthiran, A. (1996). Contract labour in Malaysia: Perspectives of principal employers, contractors, and workers. *International Labour Review*, 135(6), 75-91
- Lee, K. H. & Sivananthiran, A. (1996). Contract labour in Malaysia: Perspectives of principal employers,
- Leedy, P.D. and Ormrod, J.E., 2001. *Practical research: Planning and design* . New Jersey: Prentice-Hall.
- Lema,N. M. (1995). A model for construction performance improvement stimulation for a developing economy. *Construction Project Management*, 373-381.
- Longhi, S., P. Nijkamp, & J. Poot. 2005. —A Meta-Analytic Assessment of the Effect of Immigration on Wages. Journal of Economic Surveys, Vol. 19, No. 3, pp. 451-477.

- Love, P.E.D. Irani, Z. Edwards, D.J., 2004. A seamless supply chain management model for construction, *Supply Chain Management: An International Journal*, Vol. 9(1): 43-56.
- Lund, M. and Andreas Mehler (1999), *Peace-Building and Conflict Prevention in Developing Countries: A Practical Guide*, Conflict Prevention Network Guidebook (Brussels and Ebenhausen: CPN).
- Malheiros, J.M. (1999). 'Immigration, Clandestine Work and Labour Market Strategies: the Construction Sector in the Metropolitan Region of Lisbon', in J. Arango and M. Baldwin-Edwards (eds) *Immigrants and the Informal Economy in Southern Europe*, pp. 169–85. London: Frank Cass.
- Malheiros, J.M. (1999). 'Immigration, Clandestine Work and Labour Market Strategies: the Construction Sector in the Metropolitan Region of Lisbon', in J. Arango and M. Baldwin-Edwards (eds) *Immigrants and the Informal Economy in Southern Europe*, pp. 169–85. London: Frank Cass.
- Mbiti, T. K. (2008). *A System Dynamics Model of Construction Output in Kenya*, PhD Thesis, School of Property and Construction Project Management, RMIT University, Melbourne, Australia. Melbourne: RMIT University.
- Mendelsohn, P., 1998. Teamwork-The Key to Productivity *Journal of Management in Engineering*, Vol. 14(1):22-25.
- migration in Southeast Asia (pp.129-168). Manila: Scalabrini Migration Centre.
- Ministerio de Fomento, "Estructura de la construcción 2012,"
- Nabwowe, A. (2007). *Brain Drain to Brain Circulation*, Global Knowledge Partnership, 2007
- Narayanan, S. & Lai, Y. W. (2005). The causes and consequences of immigrant labour in the construction
- Navamukundan, A. (2002). 'Migrant workers: Labour migration in Malaysia – Trade union views', *Labour Education* 2002/4, No. 129.
- Nelson, M.L., 2004 *The Applicability of the Integrate to Innovate (i2i) model in Supply Chain Management (SCM) in Facilities Management (FM)*. PhD Thesis, University of Salford, UK.
- Olomolaiye, P. J. (1998). *Construction productivity management* . London: Prentice Hall.

- Ortega, F., & G. Peri. 2009. —The Causes and Effects of International Labour Mobility: Evidence from OECD Countries 1980-2005.∥ Human Development Research Paper, No. 6, United Nations Development Program (UNDP), New York.
- Owusuaa, D., 2012. Gender and Informality in the Construction. Industry in Ghana's Oil City Takoradi (Master's thesis, The University of Bergen).
- Papademetriou, D., M. Sumption, & W. Somerville. 2009. —Migration and the Economic Downturn: What to Expect in the European Union.∥ Transatlantic Council on Migration, Migration Policy Institute.
- Pocock, J. B., Kuennen, S. T., Gambatese, J., and Rauschkolb, J., 2006. Constructability state of practice report *Constr. Eng. Manage.*, 132(4): 373–383.
- Raghuram, P. (2005). The global maid trade: Indian domestic workers in the global market. In: Huang, S., Rahman, N.A., Yeoh, B. (Eds.), *Asian Women as Transnational Domestic Workers*. Marshall Cavendish, Singapore, pp. 146– 174.
- Rajan, R., & A. Subramanian. 2005. —What Undermines Aid's Effects on Growth?∥ IMF Working Paper Series, WP05/126, IMF.
- Rath, J. (2002). A quintessential immigrant niche? The non-case of immigrants in the Dutch construction industry. *Entrepreneurship & Regional Development* 14 (4):355-372.
- Rath, J. (2002). A quintessential immigrant niche? The non-case of immigrants in the Dutch construction industry. *Entrepreneurship & Regional Development* 14 (4):355-372.
- Ratha, D., & W. Shaw. 2007. —South-South Migration and Remittances.∥ World Bank Working Paper, No. 102, The World Bank.
- Rostow, W.W., 1963. Leading Sectors and the Take-off. In *The economics of take-off into sustained growth* (pp. 1-21). Palgrave Macmillan, London.
- S. Wilcox, B. Stringfellow, R. Harris, B. Martin, “Management and productivity,” Transportation research board, committee on management and productivity. Washington, USA, 2000.
- Sambasivan, M. and Soon, Y.W., 2007. Causes and effects of delays in Malaysian construction industry. *International Journal of project management*, 25(5), pp.517526.

- Santoso, D. S. (2009). The construction site as a multicultural workplace: a perspective of minority migrant workers in Brunei. *Construction Management and Economics*, 27(6), 529–537.
- sector in Malaysia. *International Migration*, 43(5), 31-57.
- Serneels, P. M. (2007). The nature of unemployment among young men in urban Ethiopia. *Review of Development Economics*, 11(1), 170-186
- Shafii, H., Musa, S. M. S., & Ghazali, N. M. (2009). The problem of foreign workers in the industry from the perspective of Pembinaan contractors: A case study in Johor Bahru, Johor. *Malaysia Labour Review*, 3(1), 163-191.
- Song, L. Mohamed, Y. and AbouRizk, S. M., 2006. Evaluating Contractor's Early Involvement in Design, *AACE International Transactions*.
- Stoll, D. (2010). From wage migration to debt migration?: Easy credit, failure in El Norte, and foreclosure in a bubble economy of the western Guatemalan highlands. *Latin American Perspectives*. 37: 123-142
- Strauss, K. (2012). Coerced, Forced and Unfree Labour: Geographies of Exploitation in Contemporary Labour Markets. *Geography Compass*, 6: 137–148.
- Sunderhaus, S. (2007). Survey Data: Regularization programs for undocumented migrants. *Migration Letters*, 4(1), 65-76.
- Tevera, D. and Zinyama, L., 2002. Zimbabweans who move: perspectives on international migration in Zimbabwe. Idasa and Queens University.
- Tevera, D.S. and Crush, J., 2003. The new brain drain from Zimbabwe. Idasa and Queen's University.
- Thomas, H. R., (2004). Demotivating Factors Influencing The Productivity In The Construction Industry, *International Journal Of Project Managers*. 22(2).
- Turin, D.A., 1969. The Construction Industry: Its Economic Significance and Its Role in Development... Univ. College Environmental Research Group.
- UNDP (United Nations Development Program). 2009. Overcoming Barriers: Human Mobility and Development. United Nations Development Program, New York.
- Van der Mensbrugge, D., & D. Roland-Holst. 2009. —Global Economic Prospects for Increasing Developing Country Migration into Developed Countries. Human Development Research Paper, No. 50, United Nations Development Program (UNDP), New York.

Wells, J. (1996). Labour migration and international construction. *Habitat International*, 20(2), 295-306.

Wells, J. (2007). Informality in the construction sector in developing countries.

*Construction Management and Economics* 25: 87-93.world. Basingstoke: Macmillan

Yap, M. T. (1999). The Singapore State's Response to Migration. *Sojourn* (Singapore), 14(1), 198-211.

Yusof, Z. & Jamil, J. (2011). Human Resources in Malaysian Construction Industry.

*Proceedings of International Conference on Business and Economic Research (ICBER)*. Langkawi, Kedah, Malaysia.



## APPENDICES

### KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (KNUST) DEPARTMENT OF CONSTRUCTION TECHNOLOGY AND MANAGEMENT

Dear Sir/Madam

#### An invitation to partake in a Research Survey

I am undertaking a research study in KNUST as part of my partial fulfillment of the award MSc. Construction Management. The Topic of my research is: Assessing the Effects of Foreign Construction Labour Force influx on Project Delivery in Accra.

The main objectives of the research are:

- (iv) To identify the construction labour force typologies prevalent among foreign labour force influx
- (v) To identify the effects of the foreign labour force on construction project delivery
- (vi) To identify the effects of the foreign labour force on the Ghanaian construction industry as a whole.

Attached is a copy of my questionnaire. I will be very grateful if you could answer this questionnaire to aid the study. Please, kindly respond to the questions by ticking (✓) in the appropriate box for each item. **All information collected will be confidential and would be used only for academic purposes.** Thank you for your time and contribution in advance.

Yours faithfully

**Mr. Richard Amoah Yankson**

Department of Construction Technology and Management, KNUST

Email: richardyankson3@gmail.com Mobile: 024-483-8399

**Prof. Frank Fugar**

Project Supervisor

Department of Construction Technology and Management, KNUST



**PART ONE**

**SECTION A: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS**

1. Position of respondents  Quantity Surveyor  Project Manager   
Architect  Engineer  Others (please specify) .....
2. How many years have you been practicing your profession your organization?  
 1 – 5 years  6-10 years  11- 15 years  16-20 years  
 Over 20 years
3. How many workforce do you have on your sites? .....
4. How many of these are foreign labour force  1- 3%  3-6%  6-9%   
9-12 %  12 – 15 %  More than 15%

**PART TWO**

**SECTION A: CONSTRUCTION LABOUR FORCE TYPOLOGIES PREVALENT  
AMONG FOREIGN LABOUR FORCE INFLUX**

5. Please rate based on your experience in construction project management, which of the following foreign labour force are usually prevalent. Use the scale where 1 – None  
2 – Very small 3 – Small 4 – Large 5 – Very large

Sn	Typologies of foreign labour force influx	1	2	3	4	5
	Artisans					
1	Masons					

2	Steel benders					
3	Carpenters					
4	Drivers					
5	Plumbers					
6	Painters					
7	Tilers					
8	Experts in POP					
9	Electricians					
10	Experts in glazing					
11	Welders					
12	Experts in steel construction					
13	Unskilled labourers					
	<b>Others (please specify)</b>					

**SECTION B: EFFECTS OF THE FOREIGN LABOUR FORCE ON CONSTRUCTION PROJECT DELIVERY**

6. The influx of foreign construction labour force are reported to have positive effects on construction project delivery. Based on your experience rate the variables in the table using the scale where 1 = None 2 – Very small 3 – Small 4 – Large 5 – Very large
7. *Please use the spaces below the table to add other effects and rank*

	Effects	Rankings				
		1	2	3	4	5
1	Foreign labour helps in the transfer of technology					
2	Experience from foreign labour enhances performance					
3	Foreign labour increases productivity					
4	Foreign labour influences locals to adhere to safety practices					
5	Foreign labour foster teamwork amongst local					
	<b>Others (please specify)</b>					

**SECTION C: EFFECTS OF THE FOREIGN LABOUR FORCE ON CONSTRUCTION THE GHANIAN CONSTRUCTION INDUSTRY**

8. Please which of the following are potential negative effects of foreign labour force influx on the Ghanaian construction industry. Use the scale where 1 = None 2 = Very small 3 = Small 4 = Large 5 = Very large

*Please use the spaces below the table to add other effects and rank*

	Effects	Rankings				
		1	2	3	4	5
1	Foreign labour increasing criminal activities on site					
2	Foreign labour influences locals to revolt over issues they wouldn't have revolted					
3	Foreign labour work without work permit as required by law					

4	Foreign labour reduces the employment opportunities for the locals					
5	Local labour become less interested to work in the construction industry with the foreign labour					
	<b>Others (please specify)</b>					

9. Any additional comment can be indicated below

.....

.....

**End of Questionnaire**

**Thank you.**

