

**UNIVERSITY OF EDUCATION, WINNEBA  
COLLEGE OF TECHNOLOGY EDUCATION, KUMASI**

**WORKFORCE DIVERSITY MANAGEMENT IN THE CONSTRUCTION  
INDUSTRY: IMPLICATIONS FOR CIVIL ENGINEERING PROJECT  
SUCCESS IN ASHANTI REGION IN GHANA.**

**BY**

**KWAKU OBENG**

**DECEMBER, 2018**

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**KWAKU OBENG**

**(8141760004)**

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to the School of Graduate Studies, University of Education, Winneba in partial  
fulfilment of the requirements for award of the Master of Philosophy (Construction  
Technology) degree.

**DECEMBER, 2018**

## **DECLARATION**

### **STUDENT'S DECLARATION**

I, Kwaku Obeng, declare that this Dissertation with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE: .....

DATE: .....

### **SUPERVISOR'S DECLARATION**

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidance for supervision of Dissertation as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: NONGIBA ALKANAM KHENI (PhD)

SIGNATURE: .....

DATE: .....

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**DEDICATION**

I dedicate this work to Obeng's family

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## ABSTRACT

Diversity of construction workforce is increasingly given much attention because of global challenges in trends of employment. In developing countries, this is not seen as an important input despite the labour intensive nature of the construction industry and labour constituting a large percentage of total construction project costs. Therefore, the aim of this study was to explore the implications of workforce diversity management for construction project success in the construction industry in Ghana using Ashanti Region as a case study. The specific objectives were to identify key challenges to managing diversity, identify the benefits of effectively managing workforce diversity, assess the influence of workforce diversity management on project success, and developing appropriate recommendations for enhancing project performance through effective management of diversity. The study adopted a quantitative research strategy involving the design of cross-sectional survey research design. The target population for the study comprised senior (most experience in terms of number years of working in the construction industry) site engineers and managing directors of 60 road construction firms registered with the Association of Road Contractors of Ghana (ASROC) in Ashanti Region. Census technique was employed in selecting 60 senior site engineers and 60 managing directors. A total of 120 questionnaires were administered and a response rate of 85% achieved. The study found that lack of experienced experts in managing diversity, cost of diversity management, and absence of priority by construction firms are the key challenges to managing workforce diversity. The study further revealed that, effectively managing workforce diversity gives employees more skills, knowledge, competencies and interest, and creates an inclusive and harmonious working environment. The study found that project success was influenced by aspects of workforce diversity management namely: encouraging team work at workplace, ensuring good

communication at workplace and avoiding discrimination. The study concluded that though there was lack of well-developed policies for handling diversity challenges, diversity management had a positive and significant influence on project success. The study recommended that construction firms in the Ashanti Region should make and implement policies that are geared towards managing diverse workforce in their firms.

**Keywords:** workforce diversity, management, construction, project success

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

The construction industry plays an essential role in the socio economic development of a country because of the outputs and outcomes of its activities. It builds and maintains the infrastructure on which almost every other industry depends. This physical infrastructure, built through construction activity, is the nation's economic backbone as it forms the arteries for the facilitation of productive activity by enabling goods and services to be distributed within and outside the country. The construction sector is responsible for building new houses, apartments, factories, offices and schools. It also builds roads, bridges, ports, railways, sewers and tunnels, among many other things. In addition, it maintains and repairs all of those structures mentioned above and produces the basic building materials (Ofori, 2012; Danso & Manu, 2013; Osei, 2013).

Construction project failure rates in developing countries particularly Ghana are high and the costs involved are excessively high which cause the Government of Ghana to lose substantial amounts of money (Amponsah, 2012). The achievement of construction project success in Ghanaian construction industry has thus become a major challenge. Project success means different things to different people. Time, cost and quality are considered as the three basic and most important indicators, while others researchers consider safety, functionality, satisfaction and the like, as also indicators of project success (Chan, 2001). These industries of developing countries have failed to meet the expectations of governments, clients and society as a whole

and must therefore be improved as they are of critical importance to national socio-economic development (Ofori, 2007).

In spite of these challenges facing the industries in developing countries, they contribute significantly to national socio-economic development. Many studies have shown the contribution of the industries to the economy of developing countries (Ofori, 2006; Olanrewaju & Abdul-Aziz, 2015; Dlamini, 2012; Osei, 2013). In Ghana construction sector activities promote economic growth and the relationship between them remains positive. The industry makes significant contribution to both industrial output and overall Gross Domestic Product (GDP) in Ghana over the years and also provides employment to large number of people (Osei, 2013; Danso & Manu, 2013).

According to Owusu (2014), construction industry is the largest and most challenging industry in the world, its complexity and uniqueness is marked by the diverse workforce as well as its permanent and casual human resource. Issues of diversity are now considered important and are projected to become even more important in the future because of increasing differences in the population of many countries (Mazur, 2010). Organizations need to focus on diversity management and look for its impact on construction project success so that it can be handled well to yield greater competitive advantages. The issue of diversity seems to be a social goal for the organizations, as well as schools and neighborhoods. Businesses are under pressure to achieve heterogeneity because it is the “right” thing to do and because a homogeneous workforce may serve as evidence of discrimination. While there is pressure on businesses to achieve a diverse workforce, there is very little or no existing evidence on the effects of diversity management on the project success of firms (Barrington &



Troske, 2001), particularly in the construction industry of developing countries, and for that matter Ghana. The most important question one must now ask is whether we should expect any relationship between workforce diversity management and construction project success particularly the civil engineering projects.

Other studies conducted in developed and some developing countries show that the workforce diversity management may have effect on the project success of every establishment (Kivrak, Ross, Arslan & Tuncan 2009; Ochieng & Price 2010; Simons & Rowland 2011; Otike, Messah & Mwalekwa (2011); Duffour 2014; Amponsah 2012). Diversity has the potential to impact on business activities. Diversity has become more critical especially for companies operating in international markets or having employees from different background. Diversity is important issues for every organisation in every industry. Since diversity has the potential to impact on business activities, companies have to consider the diversity management concepts in their daily businesses to operate successfully in the global marketplace. The issue of diversity in construction industry becomes critical because of the nature of construction contract, internationalisation of procurement, joint venturing, and partnership in the industry. Successfully managing diversity in workforce can enhance organisational project success and also give an organisation a strong competitive advantage. However, failure to manage heterogeneous workforce can cause serious problems that affect the success of its projects. Therefore, in order for a project to be successful, understanding and managing workforce diversity in construction industry is becoming an increasingly important topic especially in international construction projects which involve participants from diverse backgrounds (Kivrak et al., 2009).

In an era of globalization, projects in the construction industry face unique challenges in managing participants from different countries. Again, construction project teams need to cope with the complexities of both local institutions and physical environments. Though, in construction organizations there is an increasing need to get groups of project managers from diverse background to work together effectively, it has been found that bringing such groups of project managers together can be problematic and performance is not always at the level required or expected. As construction companies now have capacity to move resources and work globally, paying attention to workforce diversity management will enhance their future opportunities for success of their projects (Ochieng & Price 2010).

## **1.2 Problem statement**

An impressive body of research on the impact of demographic diversity on group performance lends strong support to the contention that well managed workplace diversity is strength. Despite organizations investing millions in workforce diversity to boost employee morale and improve performance, they rarely achieve their expected benefits, an indication that the diversity either based on demographic or social-cultural differences, if not managed well, would work against the organizational effectiveness. This is made worse by a weak diversity management culture in most of the developing countries like Ghana (Otike et al., 2011).

Project failure rates In Ghana are high and the costs involved are excessively high and because of that Government of Ghana loses substantial amounts of money. This results in many project contracts being won by foreign companies. Construction project management practices must be improved particularly in developing countries

like Ghana and its improvement is not possible without identifying the factors that influence their successes and failure (Amponsah, 2010).

Most of the developing countries depend on the Donor Community for fund in delivery of construction projects due to the scarcity of resources and this forms the basis for many campaigners in the various sectors of economic development in their advocacy for the efficient management and use of scarce resources for project success. The main challenge impeding the smooth implementation of these projects is the lack of efficient and effective management particularly the human resource and use of acquired resources. This perhaps brings us to the question of project failures in Africa and Ghana in particular (Amponsah, 2012).

Construction is a key sector of the national economy for countries all around the world as traditionally it takes up a big portion in nation's total employment and also provides significant contribution to a nation's revenue as a whole. Whereas governments tend to use investment in construction to regulate the economy, bottlenecks in the administration of public-sector projects often leads to lower levels of implementation than the stated targets, thus limiting the impact of the government's pump-priming efforts. Ghana's construction industry has some strength and these should be identified and used as the foundation for further improving the performance of the industry (Ofori, 2012). For this purpose a sustainable organizational management practices particularly the workforce diversity management issues must be given the necessary attention.

Saxena (2014) put forward that due to the diversified workforce in some or the other way, people are facing a lot of problems at the workplace. The growing diverse work force in organizations has led scholars all over the world to come out with numerous

studies on effect of workforce diversity, but only concentrated in developed countries (Marx, Pons & Suri, 2015; Barrington & Troske, 2001; Kivrak et al., 2009; Ochieng & Price 2010; Hamilton, Nickerson & Owan, 2004; Gupta 2013; Garnero, Kampelmann & Rycx, 2013; Simons & Rowland 2011; Otike et al., 2011; Ehimare & Ogaga-Oghene, 2011; Parrotta, Pozzoli & Pytlikova, 2011; Munjuri, 2012; Duffour 2014; Amponsah 2012). Paradoxically, little attention has been given to developing countries including Ghana by researchers. Specifically, the implications of workforce diversity management for civil engineering project success in construction industry of Ghana had not been studied. In developing countries where this has been considered, such research only concentrated more on other industries rather than the construction industry. Increasingly, globalization and work ethics calls for more attention on workforce diversity by way of concerted research effort. The aim of this study sought to address this gap in the literature on workforce diversity in the construction industry in developing countries specifically Ghana.

### **1.3 Aim and Objectives of the Study**

The aim of this study is to explore the implications of workforce diversity management for construction project success in the construction industry in Ghana using Ashanti Region as a case study. In order to achieve this purpose, the following specific objectives were pursued:

- To examine key challenges to managing diversity on civil engineering project sites in Ghana
- assess the benefits of effectively managing workforce diversity on civil engineering project sites.

- To assess the influence of workforce diversity management on civil engineering project success.
- To develop appropriate recommendations for enhancing project performance through effective management of diversity.

#### **1.4 Research questions**

The study seek to answer the following questions which indicate what the researcher wants to investigate into:

- What are the key challenges to managing diversity on civil engineering project sites in Ghana?
- What are the benefits of effectively managing workforce diversity on civil engineering project sites?
- What are the influences of workforce diversity management on civil engineering project success?
- What are the appropriate recommendations for enhancing project performance through effective management of diversity?

#### **1.5 Hypothesis**

- H<sub>0</sub>: There is no significant relationship between workforce diversity management and civil engineering project success.
- H<sub>1</sub>: There is a significant relationship between between workforce diversity management and civil engineering project success.

## **1.6 Significance of the study**

Findings of the study will add to the knowledge and understanding of the subject of workforce diversity management and its influence on construction project success. Below are bulleted points of the benefits of the study to both academia and construction industry:

- Create greater awareness among construction organizations on the influence of proper workforce diversity management that could provide framework to assist in the development of appropriate workforce diversity management policies that will enhance project success in the construction industry.
- Assist site engineers and construction managers to operate from an informed position when dealing with workforce diversity in relation to project success.
- Assist policymakers, consultants and advisors in the area of workforce diversity and its influence on construction project success.
- Contribute to the literature of workforce diversity management in Ghanaian construction industry that could be of great use to scholars.

## **1.7 Scope of the study**

The study was conducted in Ashanti region in the republic of Ghana. It was aimed at managing directors and site engineers within registered road construction firms in the Ashanti Region. Due to small size of registered road construction firms in the Ashanti Region, the researcher decided to include all the sixty registered road contractors on merit for the research.

## **1.8 Limitations of the Study**

In spite of best of efforts to minimise all limitations that might creep in course of the research, there were certain constraints within which the research was completed.

These are discussed below:

- The research was based on secondary as well as primary data. The primary data required to answer research questions was collected from the registered road construction firms in the Ashanti Region. Although Ashanti Region being the highest densely populated region and also relatively located in the middle of Ghana, registered road construction firms from this region alone cannot be considered as a proper representation of the registered road contractors of the country.
- The managing directors were not willing to complete the questionnaire on time due to their busy schedule. This made the researcher to face difficulties in reaching respondents, so several follow ups had to be made to collate questionnaires and also there was continuous assurance of confidentiality and anonymity because some of the respondents had the impression that the research was intended to disclose their confidential information.
- Time, cost and location factors become major difficulties in completion of research.

## **1.9 Organisation of the Study**

The study is organized into six chapters. The first chapter looked at the background of the study, problem statement, objectives of the study, research questions, hypothesis, significance of the study, scope of the study, limitations of the study and the organization of the study. Chapter two concentrated on the review of related literature

that was linked to the objectives of the study and a conceptualized/theoretical framework was drawn. Chapter three handled the research design, research approach, population of the study, source of data, data collection instrument, data collection procedure, data analysis and ethical considerations. Chapter four consisted of presentation and analysis of results. Chapter five covered discussion of results of the study. The concluding chapter which is Chapter six was on the summary of findings, conclusion and recommendations of the study.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter reviews the theoretical, empirical, and conceptual framework of the study. It specifically reviews the concept of construction Industry, the concept of diversity, legal framework of diversity, barriers to diversity and equality in construction industry and managing workforce diversity in organisation.

#### **2.1 Concept of Construction Industry**

The construction industry is an area of the economy that transforms different resources into constructed physical economic and social infrastructure needed for socio-economic development. The industry accepts the method by which the said physical infrastructure are planned, designed, procured, constructed or produced, altered, repaired, maintained, and demolished. Some of the industry's constructed infrastructure are Buildings; Transportation systems and facilities which are airports, harbors, highways, subways, bridges, railroads, transit systems, pipelines and transmission and power lines; Structures for fluid containment, control and distribution such as water treatment and distribution, sewage collection and treatment distribution systems, sedimentation lagoons, dams, and irrigation and canal systems; Underground structures, such as tunnels and mines. Traditionally there are three sub-sectors in construction industry. These are the construction of buildings, road and highway, and other structures and also specialty trades which consists of all the businesses that build either houses and office buildings or highways and bridges, as well as those who do the specialized work of electricians, plumbers and masons, who

are typically involved in the construction of all kinds of structures (Sharon Szymanski, n.d).

The construction industry is vital in every nation's economy due to the outputs and outcomes of its activities. It contributes to national socio-economic development by producing the buildings which are used in the production of all goods and services in the economy. Moreover, the physical infrastructure, built through the activities of construction, is the nation's economic backbone as it forms the main route for the facilitation of productive activity by enabling goods and services to be distributed within and outside the country. The items built also offer social and welfare benefits. For instance, housing provides one of the most basic needs of people by providing shelter from the physical elements. Built items also offer people the chance to improve their living standards. The quality of the design and construction of these amenities has an effect on the efficiency with which the productive activities and provision of services can be undertaken. This means that the construction industry can influence the competitiveness of enterprises within the economy. Construction can also have effect on the ability of the nation to attract foreign investors. This is vital in this era of globalisation as all nations are competing themselves to position to attract foreign investment (Ofori, 2012).

A narrow definition of the construction industry limits itself to the industry that deals with house building, industrial building and private commercial, civil engineering infrastructure, repair, strengthening, rehabilitation and maintenance, and so on. The modern alternative, however, has exceeded the narrow boundaries formed by the international classification to comprise the whole life cycle of construction: design, production, use, facility management, demolition, etc. The major concern of most of

the governments is for construction industry to become a highly efficient industrial sector because of key role the industry plays to the general wellbeing of the economy. As a result, the government's role as a regulator, policy-maker and a sponsor of change, and as a client is raised at several points throughout literature (Fantina, 2015). In addition, Behm (2008) indicated that Construction is a large, dynamic, and complex industry sector that performs an important role in the U.S. economy. Construction workers and employers build our roads, houses, and workplaces and repair and maintain our nation's physical infrastructure. Construction work can entail building of new structures, which may include activities involved with subdividing land for sale as building sites or preparation of sites for new construction. Construction work also involved renovations including additions, alterations, or maintenance and repair of buildings or engineering projects such as highways or utility systems ( Behm 2008).

### **2.1.1 The Relationship between Construction Industry and the Economy**

The United State construction industry contributes a lot to the wealth of its economy, as measured by the Gross Domestic Product (GDP). The GDP of the United States has grown remarkably since 1989 when it stood at about \$650 billion, almost twice in size to reach almost \$12 trillion in 2006. This in general shows that there is association between the performance of the construction industry and that of the overall performance of the economy. The industry experienced significant growth – from \$35 billion in 1987 to almost \$448 billion in 2006 but the expansion was not closely as rapid as the growth of the national economy (Osei 2013; Sharon Szymanski, n .d). There is proof of the existence of a very strong association between construction activity and economic growth. The industry as investment sector has the

potential to impact positively on short-run growth. Construction can thus be seen as a major component of investment programmes, mainly for developing economies like South Africa ( Dlamini, 2012). Moreover, Osei (2013) suggests that the construction sector performs a significant role in the improvement of socio-economic conditions and the built environment in every Nation. He indicated that the sector is an important contributor to capital formation and the rate of activities in the sector is a major indicator of the health of the economy.

Construction plays a central role in the development and modernisation process. While it is closely correlated with economic growth, it does not follow that providing incentives and increased expenditure on projects automatically leads to economic growth. The construction sector deals chiefly with the provision of capital infrastructure, which has an impact on economic growth. The delivery of such infrastructure creates significant employment opportunities for the population, which generates further investment in other sectors of the economy through the multiplier effect. In view of the fundamental significance of the construction sector in employment creation, capital formation and its aggregate spillover effects, it is clearly an important sector in the economy. That does not mean that it drives economic growth. This makes more important to identify the minimum necessary and sufficient conditions for economic growth (Dlamini, 2012).

### **2.1.2 Construction Industry in Developing Countries**

There is insufficient knowledge of the structure of the construction industries in developing countries; even little is known of the changes in this structure over time. The informal sector is of special concern to the developing countries owing to its size

and importance but it is not well understood. It is important for the informal sector to be plainly defined in order to avoid misunderstanding as well as derive full benefits from the sector for the construction industries in the developing countries (Ofori, 2007).

The studies on this special issue hardly make an impression on the total volume of work required to enable the construction industries in developing countries to be provided with the proper guidance to improve their performance and contribute to the economic progress which will lead to improvements in the quality of life of the people in these countries. Two areas where the call for action is, arguably, most critical are globalisation and environmental issues. On globalisation, research should endeavor to equip firms in developing countries with the ability to take up a strategic response to the presence of foreign firms in their home markets in order to benefit from doing business with them, learning from them, competing with them, collaborating with them, and adopting them as role models and benchmarks. On issue of sustainability, work is required to reduce the contribution of the construction industry to environmental stress in the developing countries, for example, following the proposals in the Agenda 21 for Sustainable Construction in Developing Countries (Ofori, 2007).

The industry contributes to some aspect of the economy like infrastructure development because that is the order of the day. Infrastructure development contributes to the economy because it solely relies on the labour market, procurement of materials, plants just to mention few. Due to its state in the world economy as a developing country, it undertakes projects such as buildings for office complex,

hospitals, classrooms, hostels, industries, bridges, dams, roads and like (National Development Planning Commission as cited Owusu, 2014).

A study revealed that the construction sector in Ghana can promote infrastructural development such as hospitals, schools, townships, offices, houses, urban infrastructure (including water supply, sewerage, and drainage), highways, roads, ports, railways, airports, power systems, irrigation systems, and telecommunications. Finally, the study concluded that, the construction sector when given the required assistance in terms of capacity building, good policy initiatives and regulatory guidelines can provide the necessary impetus for socio-economic development in Ghana (Osei, 2013).

Construction sector activity is a vital part of a country's infrastructure and industrial development. The construction industry also generates considerable employment and provides a growth impetus to other sectors of the economy through backward and forward linkages. It is, essential therefore, that, this very important activity is nurtured for the healthy growth of the economy. As a result, there is the need for good policies to be instituted by policy-makers in order to regulate and promote growth in the sector.

Since the construction industry in Ghana in particular plays a key role in the development of the national economy, its sustainability is crucial to the nation as a whole. The industry is presently characterized by a great number of small contractors, and a small number of large foreign contractors dominating the construction market especially in the area of donor funded projects. Sustainable capacity needs to be built through the intensification of the local contractors and other

actors in the industry without discrimination to their foreign counterparts. Growth and sustainability will not come at once. It can only be achieved through the creation of an appropriate business environment where both local and foreign partnerships can grow, thus facilitating technology transfer (Osei, 2013). For example, if local contractors partner themselves with their foreign counterparts, they can easily be strengthened by acquisition of technology, skills and also be exposed to how to handle international projects as well as working with international workforce.

### **2.1.3 Challenges of Construction Industry in Developing Countries**

The construction industries of the developing countries will face major challenges in future. Those which are often highlighted and considered have to do with the resource shortages of the industry itself. It is argued that issues which are not normally considered to be relevant to developing countries are, indeed of significance to them, and some may be critical. It is essential for more work to be done on the issues of globalisation, the environment, and the different aspects of culture and diversity of workforce as they relate to construction activity, construction enterprises and the construction industry in developing countries. The major objective of construction industry development should embrace all these issues. In other words, the developing countries should endeavour to develop construction industries which are well-poised to benefit from globalisation rather than to become victims of this inevitable process where construction is concerned, enterprises and practitioners which are aware of and actively seek to limit the negative environmental impact of their activities, and which effectively apply the local culture to facilitate their efforts towards achieving success on their projects (Ofori, n.d).

## **2.2 Concept of Diversity**

The concept of diversity entails acceptance and respect. It means understanding that each individual is unique, and recognizing our individual differences. The differences can be observed along the dimensions of race, ethnicity, gender, sexual orientation, socioeconomic status, age, physical abilities, religious beliefs, political beliefs, or other ideologies. According to them it is the exploration of the differences in a safe, positive, and fostering environment. It is about understanding each other and going beyond simple tolerance to acceptance and celebrating the rich dimensions of diversity contained within each individual (Patrick & Kumar ;Jack as cited in Ike& Eze, 2013) .

The word Diversity can in general be defined as recognising, understanding and accepting individual differences regardless of their race, gender, age, class, ethnicity, physical ability, and race. Sexual orientation, spiritual practice and so on (Dike, 2013). Additionally, Broad spectrum (2015) defined diversity as the variety of individual attributes such as cultural and ethnic backgrounds, gender, age and family circumstances present among employees. Other individual attributes include marital status, pregnancy, sexuality, disability, religion, political preference, and trade unionism.

Diversity clearly means difference. Diversity has to do with recognizing that everyone is dissimilar in a variety of visible and non-visible ways. Diversity has to do with recognizing individual as well as group differences. It is about creating a culture and practices that recognize, respect and value difference. Diversity calls for connecting this potential to create a productive environment in which the equally diverse needs of



the customer or client can be met in a creative environment. It is about generating a workforce that feels valued and respected and has its potential fully utilized in order to meet organizational goals (The Law Society of Scotland as cited in Wambui, Wangombe, Muthura, Kamau & Jackson, 2013).

Patrick and Kumar (2012) established that, diversity is a set of conscious practices that involve understanding and appreciating interdependence of humanity, cultures, and the natural environment; practicing mutual respect for qualities and experiences that are different from our own; understanding that diversity includes not only ways of being but also ways of knowing; recognizing that personal, cultural, and institutionalized discrimination creates and sustains privileges for some while creating and sustaining disadvantages for others; and building alliances across differences so that we can work together to eradicate all forms of discrimination.

In related research, Dillon, Allyn, Richards and Hines (2016) described diversity as a wide range of differences and similarities. In its full breadth, diversity encompasses 24 dimensions-including race, ethnicity, gender, sexual orientation, religion, generation and physical ability. Esty, Griffin and Schorr-Hirsh as cited in Wambui et al., (2013) also admitted to the fact that diversity is generally said to mean acknowledging, understanding, accepting, valuing and celebrating among people with respect to age, class, ethnicity, gender, physical and mental ability, race, sexual orientation, spiritual orientation and public assistance status.

For the purpose of this work the word diversity cannot be isolated from the workforce. So workforce diversity is defined as a collection of individual attributes that together help agencies pursue organizational objectives efficiently and

effectively. These include, but are not limited to, characteristics such as national origin, language, race, color, disability, ethnicity, gender, age, religion, sexual orientation, gender identity, socioeconomic status, veteran status, and family structures. The concept also encompasses differences among people concerning where they come from and where they have lived and their differences of thought and life experiences (United States Office of Personnel Management, 2011)

Additionally, workforce diversity can be considered as recognising the value of individual differences and integrating these into the workforce. Diversity may include gender, language, ethnicity, cultural background, age, sexual orientation, religious belief and family responsibilities. The other ways in which people are different, such as educational level, life experience, work experience, socio-economic background, personality, marital status and abilities/disabilities can also be referred to as diversity. Diversity is more than merely accepting people from diverse backgrounds. It is managing and integrating their varied lifestyle (Australian Capital Territory Public Service, 2010).

In definition of workforce diversity, two general approaches seemed to be dominant and these are the narrow view and broader view. In the narrow view, workforce diversity is defined only as a term related to equal employment opportunity. The narrow view typically adopts categories of race, colour, religion, sex and national origin. The second view argues that workforce diversity is a broader concept that includes all the ways in which people can be different (Cole & Kelly as cited in Wangombe, Muthura, Kamau & Jackson, 2013). Wambui, et al. (2013) in their studies agreed that a broader view makes use of additional categories such as teaching, education, sexual orientation and differences in values, abilities,

organizational function, tenure and personality. According them, taking a broader view, diversity management initiatives attempt to maximize the potential of all employees in direct benefit to the organization. Consequently, the best employees are recruited, resulting in greater profits and job security.

Moreover workforce diversity in organization can also be referred to the differences between employees on any attribute that evokes the perception that a co-worker is different to others. These can include demographic attributes such as gender, age, ethnicity, nationality, tenure, and functional or educational background (Cox as cited in West, Dawson & Kaur 2015). Others attributes include disability, sexual orientation, marital status, religion, skills, experience and values, attitudes and personality (West et al., 2015). It has become clear that workforce diversity has to do with tolerance of the different strange aspects of individuals within an organization, exploiting their target inputs for the organization's and personal benefit in a positive way. Previously, employers had been said to ignore certain differences such as background, personality and work style.

However; individual and group diversity needs to be considered in order to ensure that everybody's needs and requirements are understood and responded to within the employment practices and service design and delivery. Currently, the organizations have responded to the issue of diversity through the development of flexibility in working practices and services, such as, an employer may allow an employee to work a flexible working pattern to accommodate for example breast feeding mothers take care of their babies as they work. These approaches are good because they recognize that in order to provide accessible services to the customers and to ensure an organization promotes inclusive working environment to its employees, organizations

may need to respond differently to both individuals and to the groups needs (Wambui et al., 2013 ).

The drivers of Diversity can be grouped into four main categories. For a minority of companies, diversity is principally about fairness and justice which means that ensuring an equal opportunity for members of disadvantaged groups. For the majority, encouraging diversity is a means to ensure a large enough talent pool in the future. Again, other firms are interested in mirroring the customer base and thereby improving understanding of customers, and delivering decisions that are based on a broader palette of considerations. A fourth group cites legal compliance. Naturally, these categories are not mutually exclusive; companies usually have numerous reasons for promoting diversity and inclusion. Companies usually consider Inclusion to be a vital part of Diversity efforts, since Inclusion improves rates of retention of employees who are diverse (Society for Human Resource Management, 2009).

Diversity in this sense means to make sure that we respect, value and harness differences so that everyone can make a full contribution in construction industry. Diversity makes sense, both for our customers and for us. It should be our vision that construction industry becomes more effective in making both public and private works better by actively promotes equality and see diversity as an opportunity, not a problem, has an open culture and behaves inclusively; and unlocks the energy and potential of the industry's workforce ( Cabinet Office, 2007).

### **2.2.1 Advantages of Diversity**

The success and competitiveness of an organisation depends upon its ability to embrace diversity and realize the benefits. When organizations attach importance to their handling of workforce diversity issues, develop and implement diversity plans, results in multiple benefits. Employing a diverse workforce in organisations can lead to a greater variety of solutions to problems in service, sourcing, and allocation of resources. Workforce from diverse backgrounds brings individual talents and experiences in suggesting ideas that are flexible in adapting to fluctuating markets and customer demands. A diverse collection of skills and experiences helps a company to provide service to customers on a global basis. A diverse workforce that feels comfortable communicating varying points of view provides a larger pool of ideas and experiences. Companies that encourage diversity in the workplace inspire all of their employees to perform to their highest ability (Ike & Eze, 2013).

In an era when flexibility and creativity are keys to competitiveness, diversity is vital for an organization's success. Also, the consequential cost (loss of time and money) should not be overlooked. Respecting individual differences will benefit the workforce by creating a competitive edge and the success of the organization (Green et al., 2015). Human beings differ in age, social and national background, gender, sexual orientation, physical and mental ability as well as religious belief and world view. Diversity is a foundation of creativity and innovation that can afford the potential for future development and competitive advantage. Ensuring that diversity is made visible and fruitful remains a central concern of diversity management. In doing so, individual and structural representation of perception and appreciation may be reflected upon (Ike & Eze, 2013). Both employees and employers benefit from

diversity. Even though employee's associates are interdependent in the workplace, respecting individual differences can help them to perform well.

Diversity in the workplace can reduce lawsuits and increase marketing opportunities, recruitment, creativity, and business image (Esty et al. as cited in Green et al., 2015). Diverse teams are innovative. Each member has a different background and point of view, so they bring a broad range of ideas to the table. When we value everyone's unique perspective, we see high performance and better results (Dillon et al., 2016).

Diversity can help us to make government work better in two ways; firstly by increasing our efficiency and effectiveness through the greater creativity of a diverse workforce where everyone's potential is fully realised. Research shows that valuing and supporting the diversity of people's backgrounds and lifestyles is a key factor in maximising the workforce's contribution to improving organisational performance. And the best performing organisations, both in the public and private sector, are also the ones that invest most in promoting diversity. It is known that there is a positive relationship between workforce representation, knowledge of customer population and, ultimately, service delivery. It is observed that the different experiences that come from a diverse workforce can provide insights into the service delivery needs of different, sometimes hard to reach, groups (Cabinet Office, 2007).

### **2.2.2 Disadvantages of Diversity**

Managing a diverse workforce is a challenging task. Managing diversity is more than simply acknowledging differences in people. It involves recognizing the value of differences, combating discrimination, and promoting inclusiveness. Managers may

also be challenged with losses in personnel and work productivity due to prejudice and discrimination, as well as complaints and legal actions against the organization (Dove as cited in Green et al., 2015).

### **2.3 Legal Framework of Diversity**

There is an extensive legal framework, both national and European, supporting diversity and equality objectives. These cover sex, race, disability, equal pay, sexual orientation, gender identity, religion and belief, and age (Cabinet Office, 2007). The foundational federal anti-discrimination statute is Title VII of the Civil Rights Act of 1964. Title VII prohibits discrimination in employment on the basis of race, color, religion, sex or national origin. Since then, numerous federal, state and local laws have been enacted prohibiting discrimination in employment on the basis of other protected characteristics, such as age, disability, veteran status, marital status, sexual orientation, gender identity and genetic predisposition. Employers and courts alike have struggled to implement the overriding goal of providing equal opportunity and fundamental fairness to both applicants and employees in employment decisions involving hiring, retention, compensation, promotion and termination. Many employers also seek a competitive advantage by hiring and retaining workforces that reflect and are inclusive of their applicant pool and client or customer base. Such employers recognize that diverse employees bring to their businesses experiences, perspectives, and innovation that may be missing from mono cultures comprised of members of a group with little to no demographic diversity (Committee on Labor & Employment Law, 2012).

In addition, Equality Challenge Unit (2013) indicated that in England, Scotland and Wales, the Equality Act 2010 protects individuals from unlawful discrimination on the basis of nine ‘protected characteristics’: age, disability, gender reassignment, marriage and civil partnerships, pregnancy and maternity, race, religion and belief, sex, or sexual orientation. In Northern Ireland these characteristics are protected under individual anti-discrimination legislation. The Act includes a public sector equality duty which requires public bodies, including higher education institutions, to have due regard to the need to do away with discrimination, harassment, victimisation and any other prohibited conduct, and champion equality of opportunity between persons who share a protected characteristic and those who do not foster good relations between persons who share a protected characteristic and those who do not.

Subsequently enacted federal statutes prohibit discrimination on additional bases. For example, the Age Discrimination in Employment Act of 1967 prohibits discrimination in employment against persons who are 40 years of age or older. The Americans with Disabilities Act prohibits discrimination in employment based on disability, perceived disability, a history of disability or association with a disabled individual. Many states and municipalities also have enacted anti-discrimination laws that prohibit discrimination on the grounds covered by federal law and, at times, go beyond the protections offered under federal law by protecting other traits, such as sexual orientation and marital status (Committee on Labor & Employment Law, 2012).

Furthermore, the Executive order directs executive departments and agencies to develop and implement a more comprehensive, integrated, and strategic focus on diversity and inclusion as a key component of their human resources strategies. This approach should include a continuing effort to identify and adopt best practices to



promote diversity and inclusion and to identify and remove any barriers to equal employment opportunity, consistent with merit system principles and applicable law. A commitment to equal opportunity, diversity, and inclusion is critical to accomplishing the Federal government's missions. By law, the Federal government's recruitment policies should "endeavor to achieve a work force from all segments of society," while avoiding discrimination for or against any employee or applicant on the basis of race, color, religion, sex (including pregnancy or gender identity), national origin, age, disability, sexual orientation or any other prohibited basis (U.S. OPM, 2011).

Generally, Title VII prohibits employers from making employment decisions because of an individual's race, color, religion, sex or national origin. Similarly, an employer is prohibited from granting preferential treatment to any individual on account of his or her protected demographic characteristics due to a numerical imbalance in the employer's workforce. Title VII also prohibits employers from considering any of the characteristics protected by Title VII in any employment decision if they are a motivating factor for any employment practice.

The Supreme Court has construed Title VII's prohibition against discrimination to recognize claims by members of both the minority and non-minority groups. For example, a White employee may assert a claim for race discrimination, just as an African-American, Asian, or African employee can. Likewise, a male employee can claim gender discrimination, just as a female employee can. The prohibitions against discrimination are universal, applying to all races, genders, national origins and religions. No group is to be favored or disfavored under the Law (Committee on Labor & Employment Law, 2012).

Thus, all educational institutions are subject to Title VII. Title VII applies only in the employment context. It is an unlawful employment practice for an employer to fail or refuse to hire or to discharge any individual, or otherwise to discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, sex, or national origin; or to limit, segregate, or classify his employees or applicants for employment in any way which would deprive or tend to deprive any individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, sex, or national origin ( American Association for the Advancement of Science, 2010).

There is another legal framework in order to protect indigenous and tribal workers from discrimination; the Convention specifies the following conditions: indigenous and tribal workers should not be discriminated against when looking and applying for work, which includes everything from manual labour to higher positions. Men and women should have the same opportunities; they should not be paid less than anyone else doing the work of equal value, and this should not be restricted to lower-paid kinds of work; they should not work under exploitative conditions. This is especially important when working as seasonal, casual or migrant workers, e.g. on plantations during harvest times. Men and women should be treated equally; they have the right to form or join associations and to participate in trade union activities; they should receive information about workers' rights and ways to seek assistance. They should not work under conditions causing adverse health impacts without being properly informed about the necessary precautions. In any case they should receive medical and social services (International Labour Organisation, 2013).

The General Conference of the International Labour Organisation, Having been convened at Geneva by the Governing Body of the International Labour Office, and having met in its Forty-second Session on 4 June 1958, and Having decided upon the adoption of certain proposals with regard to discrimination in the field of employment and occupation, which is the fourth item on the agenda of the session, and Having determined that these proposals shall take the form of an international Convention, and Considering that the Declaration of Philadelphia affirms that all human beings, irrespective of race, creed or sex, have the right to pursue both their material well-being and their spiritual development in conditions of freedom and dignity, of economic security and equal opportunity, and Considering further that discrimination constitutes a violation of rights enunciated by the Universal Declaration of Human Rights (ILO, 2003).

According to the international standards contained in the Indigenous and Tribal Populations Convention and Recommendation, 1957, and Recalling the terms of the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights, and the many international instruments on the prevention of discrimination, Governments shall do everything possible to prevent any discrimination between workers belonging to the peoples concerned and other workers, in particular as regards; there should be admission to employment, including skilled employment, as well as measures for promotion and advancement; there should be equal remuneration for work of equal value; there should be medical and social assistance, occupational safety and health, all social security benefits and any other occupationally related benefits, and housing; there should be right of association and freedom for all lawful

trade union activities, and the right to conclude collective agreements with employers or employers; the measures taken shall include measures to ensure: that workers belonging to the peoples concerned, including seasonal, casual and migrant workers in agricultural, and other employment, as well as those employed by labour contractors, enjoy the protection afforded by national law and practice to other such workers in the same sectors, and that they are fully informed of their rights under labour legislation and of the means of redress available to them; that workers belonging to these peoples are not subjected, to working conditions hazardous to their health, in particular through exposure to pesticides or other toxic substances; that workers belonging to these peoples are not subjected to coercive recruitment systems, including bonded labour and other forms of debt servitude; that workers belonging to these peoples enjoy equal opportunities and equal treatment in employment for men and women, and protection from sexual harassment ( ILO convention, 1999).

The terms employment and occupation are explained to include access to vocational training, access to employment and to particular occupations, and terms and conditions of employment. The protection afforded by the Convention is not limited to individuals who have already gained access to employment or to an occupation, but also covers opportunities of gaining access to employment or to an occupation. It also covers access to training, without which there would be no real opportunity of access to employment or occupation. The recommendations of this provision include the following: all persons should, without discrimination, enjoy equality of opportunity and treatment in respect of access to vocational guidance and placement services; access to training and employment of their own choice on the basis of individual suitability for such training or employment; advancement in accordance with their

individual character, experience, ability and diligence; security of tenure of employment; remuneration for work of equal value; conditions of work including hours of work, rest periods, annual holidays with pay, occupational safety and occupational health measures, as well as social security measures and welfare facilities and benefits provided in connection with employment. It is also recommended that, employers should not practise or countenance discrimination “in engaging or training any person for employment, in advancing or retaining such person in employment, or in fixing terms and conditions of employment (ILO, 2003).

The Constitution of Ghana and the labour laws prohibit discrimination on the basis of race, sex, ethnic origin, creed, colour, religion, social, or economic status. Part VI of the Labour Act ensures protection of working women and Part V protects workers with disabilities. Section 68 specifies that every worker shall receive equal pay for equal work without distinction of any kind. Section 46 offers special incentives for the employment of persons with disabilities, and section 53 places special emphasis in training and retraining to enable the worker to cope with any aspect of the job. The Labour Act introduces the offence of sexual harassment. Section 175 defines it as “any unwelcome, offensive or inopportune sexual advances or request made by an employer or superior officer or a co-worker to a worker, whether the worker is a man or a woman” (ILO, 2006).

### **2.3.1 Affirmative Action**

It is one of the legislative instruments that were used to cure the issue of discrimination and to encourage diversity among employees. Affirmative action is a set of principles adopted by governments, public and private institutions such as

political parties, educational establishments, corporations and companies to address a history of systemic discrimination and exclusion of particular social groups or to encourage the efforts of particular social groups in the interests of certain development goals” (Dzodzi, 2009). Affirmative action occurs whenever an organization devotes resources (including time and money) to make sure that people are not discriminated against on the basis of their gender or their ethnic group. Affirmative action has the same goal as equal opportunity, but differs from equal opportunity in the sense of being proactive (Burstein as cited in Faye, Aarti & Sirinda, 2006).

Affirmative action was initiated by the United States of America (USA) which was used basically to address racial/ethnic discrimination. It started with an executive order issued by President Kennedy in 1961. The Civil Rights Act of 1964 had provisions which made discrimination illegal and established equal employment opportunities for all Americans irrespective of race, cultural background, colour or religion. Other executive orders, particularly, the EO11246 issued by President Johnson in September 1965 and amended by Executive Order 11373 put in place affirmative action goals and identified the Labour Department as the monitor and enforcer of affirmative action programmes. The Order required that “all companies, universities and other institutions which do business with the government or receive federal funding, shall not only refrain from racial, sexual or religious discrimination in hiring, promotion and admissions, but also take affirmative action to ensure that applicants are employed, and that employees are treated during their employment without regard to their race, colour, religion, sex or national origin. Employees are

treated during their employment without regard to their race, colour, religion, sex or national origin” (Dzodzi, 2009).

What most people refer to as affirmative action is actually an Executive Order signed by President Lyndon B. Johnson in 1965 and amended to include women in 1967, requiring federal contractors or subcontractors with 50 or more employees or more than \$50,000 in contracts to “take affirmative action to ensure that applicants are employed, and employees are treated during employment, without regard to their race, color, religion, sex or national origin (Blau & Winkler, 2005).

#### **2.4 Barriers to Diversity and Equality in Construction Industry**

There are several stages historically that can be identified in taking down the barriers to diversity. The legislative landscape has altered and certainly over the years a legal basis should in principle have been established which removed impediments to equality. A number of initiatives and reports have contributed to the increasing scrutiny placed upon diversity within the workforce generally, but whilst it is apparent that there have been significant developments in some work sectors, it is clear that others are still lagging far behind. It is now over 90 years since the Sex Discrimination (Removal) Act 1919 enabled women to enter the professions and nearly 40 since another tranche of legislation commenced to tackle equalities issues and discrimination. However it is clear that in aspects such as earnings and progression, the ambitions embodied within much of the legislation have failed to be realized (Ann, Rachel, Fiona & Nada, 2009).

It is found that image of the construction industry, career knowledge, culture and working environment, family commitments, male dominated training course and recruitment practices are the major barriers to women in construction (Amaratunga,

Haigh, Lee, Shanmugam & Elvitigala, n.d). White male-dominated organizational cultures, inflexible work practices, and a lack of supportive networks serve as obstacles to women in the UK construction industry (Worrall, 2012).

#### **2.4.1 Diversity and Procurement in Construction Industry**

Although, in Great Britain public bodies have a legal responsibility to encourage race equality, there has been little change in procurement arrangements. Traditional procurement methods and the use of approved lists have been cited as discriminating indirectly against ethnic minority contractors. Traditional procurement methods discriminate indirectly against ethnic minority contractors and consultants. Using approved lists of contractors and consultants is still a standard method of selection, but it is very difficult for new contractors to get onto these lists. Instead of upgrading these lists, little has been done to ensure greater diversity (Equality and Human Rights Commission, 2009).

In Ghana, a number of methods such as International Competitive Bidding (ICB), National Competitive Bidding (NCB), Restricted Tendering and Price Quotation or Single Sourcing are some of the laid down alternative procurement procedures for acquisition of goods and services. It is established that the issue of procurement is the prerogative of the Managing Directors or Chief Executive Officers particularly the private Companies. Procurement of goods and services should lie in the hands of the project manager and his team. They ensured that the right goods and services are procured at the right place at the right time for the successful execution of the project. But majority of these project practitioners who are supposed to be part of the procurement process are not included in this practice and that it becomes a



consignment to the head of the organizations. The consequence of this exercise is that the project manager and his workforce will not be willing to commit themselves to the project throughout its life cycle. This can greatly affect the success of the projects (Amponsah, 2012).

There are challenges in the implementation of the Public Procurement Law in Ghana as a result of low capacity of procurement professionals, low interaction between procurement entities and the public procurement authority (PPA), deliberate controlling of competition, non-compliance with provisions of the law, splitting of contracts into smaller lots, lack of funds and non-cooperation of suppliers. Because of this, foreign investors would be unwilling to invest in Ghana economy especially where they would have to deal with public procurement entities whose procurement processes are at variance with norms, standards and practices. This would not help in the promotion of diversity in our workforce since the foreign counterparts are not willing to work in our organisations. It is therefore imperative that steps be taken by the PPA to sanitize the procurement process by training both procurement officers and suppliers, contractors and consultants to understand the procurement processes and to enable them apply the law to the letter (Ameyaw, Mensah, & Osei-Tutu, 2012).

#### **2.4.2 Measures to Improve Diversity and Equality in Construction Industry**

While the number of women in construction roles still remains comparatively small, awareness of the need to accommodate gender diversity in the industry is high, with industry bodies and construction organisations developing and adopting a number of gender inclusive initiatives. Retaining female talent requires more flexible work environments and clear communication channels. Organisations must be willing to

support alternative role options and lateral career paths while continuing to value the achievements of their female staff. Since the perceived ‘unsuitability’ of construction is so closely linked to gender, industry should promote female role models who can dispel some of the negative perceptions of the sector and provide women with a realistic view of construction roles. For women to be successfully recruited and retained in construction, they need to be ‘supported, coached, and encouraged’. The industry needs to ensure that they are sending out the right message that women can do and, succeed in a career in a construction (Amaratunga, Haigh, Lee, Shanmugam & Elvitigala, n.d)

#### **2.4.3 Diversity among Construction Professionals**

Research revealed that, the Construction industry teams are made up different types of diversity which include, surface-level diversity and deep-level diversity. The surface level diversity includes, differences in age, gender, educational background among others, whereas the deep level diversity includes psychological differences, differences in values among others. This is because the industry consists of a lot of different people from diverse background (Duffour, 2014).

Olanipekun, Aje and Adedokun (2014) established that there is diversity among construction professionals, especially in their perception of the prioritisation of construction management practices. Therefore all the construction industry stakeholders (policy makers, construction professional bodies, construction regulatory bodies, organised clients, contractors, consultants and the Academia) should explore means of directing the industry’s diversity to advantage. Among the diverse professionals in construction industry are the architects, civil engineers, builders, quantity surveyors and so on. According to them, the diverse workforce refers to the

changing age, sex, ethnicity, physical ability, race, and sexual orientation of employees across all types and places of work in a Country. Diverse workforce has become increasingly common in recent times, and it has been identified by many scholars that management of diverse workforce is a significant aspect of general human resource management (Olanipekun, Aje & Adedokun, 2014).

Construction workers who come from different ethnic groups express themselves and understand the behaviours of others in different ways, based on specific sets of cultural knowledge and conventions. This at times leads to cross-cultural misunderstandings which can therefore affect their work. The inability to immediately communicate verbally on construction sites represents one of the major challenges to successful management of project on the construction site (Mbazor & Okoh, 2014).

There are remarkable differences in industrial practice in various parts of the world, and these practices are unique in their own way and are tailored along some guidelines which the workers in such environment need to follow. The technology may be in existence in the countries where the migrant workers come from and as such constituting a challenge to adopting new technology. This lack of working knowledge of an existing technology in a new environment to workers will put the success of the project at risk (Mbazor & Okoh, 2014)

It is admitted that Construction industry teams are made up different types of diversity which include, surface-level diversity and deep-level diversity. The surface level diversity includes, differences in age, gender, educational background among others, whereas the deep level diversity includes psychological differences, differences in values among others. This is because the industry consists of a lot of different people from diverse background (Duffour, 2014).

## **2.5 Managing Workforce Diversity in Organisation**

Workforce diversity refers to the variety of differences between people in an organization. That sounds simple, but diversity encompasses race, gender, ethnic group, age, personality, cognitive style, tenure, organizational function, education, background, and more. Diversity involves not only how people perceive themselves but also how they perceive others. Those perceptions affect their interactions. For a wide assortment of employees to function effectively as an organization, human resource professionals need to deal effectively with issues such as communication, adaptability, and change (Patrick & Kumar, 2012).

A diverse workforce is a response to a changing world and marketplace. It is a process intended to create and maintain a positive work environment where the similarities and differences of individuals are valued, so that all can reach their potential and maximize their contributions to an organization's strategic goals and objectives. Diverse work group brings high value, good reputation and high productivity to the organization. Respecting individual differences will benefit the workplace to enjoy a competitive edge and enhance motivation of employees (Wambui et al., 2013).

For example, in India Organizations are global today, especially in the information technology sector. This has led to an increase in the heterogeneousness among employees and has increased the challenge of organizations to manage diverse employees. Incorporating diverse people and their perspectives has become a major concern for every organization. The repercussions for not managing diversity would lead to lack of skills, competencies, and interests in employees, which will ultimately increase employee turnover and reduce individuals' and organizations' performance to a great extent. Organizations that manage diversity are recipients of more

commitment, and better satisfied as well as better performing employee (Patrick & Kumar, 2012).

Diversity management benefits associates by creating a fair and safe environment where everyone has access to opportunities. By managing diversity at the workplace, organizations create an inclusive and harmonious environment which enhances good reputation of the organization with people seeking jobs hence able to attract the best workers in the market. The employees feel valued, rewarded and motivated while working in an organization that manage diversity. According to a research done worldwide three million employees indicated that diversity brings about satisfaction and organizational performance. It was also found out that creating an inclusive and harmonious environment was a key driver in employee engagement and commitment. Managing diversity creates greater employee engagement which at the end leads to reduced labor turnover (Wambui et al., 2013).

Diversity management intends to create and maintain a positive work environment where the similarities and differences of individuals are valued, so that all can reach their potential and maximize their contributions to an organization's strategic goals and objectives. Diversity management ensures that all employees have the opportunity to maximize their potential and enhance their self-development and their contribution to the organization. It recognizes that people from different backgrounds can bring fresh ideas and perceptions, which can make the way work is done more efficient and make products and services better. Managing diversity successfully will help organizations to nurture creativity and innovation and thereby to tap hidden capacity for growth and improved competitiveness (Patrick & Kumar, 2012).

Managing diversity is a broad and complex issue. Leaders face formidable challenges in building a multicultural organization that truly values diversity. To be successful, managers need to "unlearn practices rooted in an old mind set, change the ways organizations operate, shift organizational culture, revamp policies, create new structures, and redesign human resource systems (Jamieson & O'Mara, as cited in White, 1999). Despite the efforts channeled into workforce diversity management, organizations rarely achieve their expected benefits due to lack of supporting legal framework. Nevertheless, the benefits of workforce diversity has seen organizations put in place policies that protect diversified groups. Challenges to workforce diversity management include political influence, cultural differences, omission of talented workforce due to bureaucracy in a company, and majority companies complying with workforce diversity due to legal implications and not the general benefits. Workforce diversity management, in a country like Ghana where people come from different cultures, ethnic communities and different social lifestyles, is very important. The opening up to globalization has increased the number of diversified workforce in Ghanaian industry creating an even larger need for workforce diversity management (Kinyanjui, 2013).

### **2.5.1 Workforce Diversity Management Strategies**

- **Communication in Managing Workforce Diversity**

The first strategy in managing workforce diversity is communication. Open communication and teamwork must be encouraged across work functions. Horizontal communication is more relevant in business environments where social media networking platforms are causing hierarchical boundaries to disappear. Encourage employees to work together to solve problems and consider incentives and rewards for successful projects (Wambui et al., 2013).

A diverse workforce requires efficient communication. Leaders must ensure that there are open avenues for employees to communicate new ideas, grievances, input and feedback. In many ways, the classic bureaucratic model is antithetical to the needs of culturally diverse workgroups and innovative, nonhierarchical organizational designs may be in order to insure effective communications (White 1999). Organizations can minimize miscommunication with diverse others and build relationships with diverse others by implementing the following strategies, that is, by communicating effectively, working with diverse others, encouraging peers to be open in discussing their personal opinions, and educating employees about differences. These strategies will increase awareness about workforce diversity (Patrick & Kumar, 2012).

Communication is essential in a workplace as it is the backbone of productivity and relationships for the success of the organization. There are steps in communication that must be done in order to make workforce diversity management a success: learning how source culture best receives communication; training employees early so that they are absorbed in the system's culture; training all who are native born to enhance relationship with non-natives; assign mentors and take care of partners; practice open door communication; and avoid jargon and slang (Kinyanjui, 2013).

- **Diversity Recruitment Strategy**

The next strategy in managing workforce diversity is about recruitment method. A multicultural successful organization should advance its supply of diverse workers through aggressive recruiting. It must improve its recruitment method by enlarging the number of women and minorities in the higher salary groups through career development, mentoring, and executive appointment. It must empower all of its

employees to use their full capacity (White, 1999). Develop a recruitment strategy that stresses on the need for diversification. As an organization, develop policies and guidelines for staff conduct and ensure that each staff member has a copy. Include the channels and procedures for grievances and ensure confidentiality for everyone. Ensure that the rules and guidelines are fair and transparent and apply to all staff, including the management (Wambui et al., 2013).

- **Training of Employees**

Moreover training of employees by top management plays a crucial and leading role in making diversity a success. The CEO must exhibit a strong commitment to the training of employees. Leaders must receive diversity training to address myths, stereotypes and real cultural differences as well as organizational barriers that interfere with the full contribution of all employees. Top executives need experience of what it is like to be a minority (White, 1999). Training of recruitment personnel will make them experts in diversification matters. Provide them with the skills to analyze the current workforce and fill skills gaps. Ensure that candidates are chosen solely because they are the best fits for the jobs, and for no other reason (Wambui et al., 2013).

Some of the strategies that lead to inclusiveness that can be practiced in organizations are systematic learning about cultural differences and the way business is conducted in the country where the overseas assignment is, training employees to learn about and be sensitive to cross-cultural differences, encouraging employees to accept overseas assignments, and offering language training, which can improve employees' ability to work with diverse others with cultural differences and increase inclusiveness



in an organization. By implementing the following strategies, organizations can improve employees ability to work with diverse others with cultural differences from their own (Patrick & Kumar, 2012).

- **Commitment of Organisation to Diversity Policies**

Another strategy in managing workforce diversity is the commitment of organization to diversity policies. Diversity policies must be part of an organization's strategic business objective. A diversity program cannot fully succeed if it is a separate strategy similar to traditional Affirmative Action/EEO programs. Diversity goals must be linked to business goals, not merely meeting Affirmative Action legal requirements. Diversity must be stressed not only internally but should be a significant part of external outreach programs that identify the organization as a multicultural leader and active in community and societal issues. Diversity should be a superordinate goal rather than a goal ascribed to individual groups. Managers must be held accountable for meeting diversity goals. Performance evaluations and rewards should be tied to a manager's ability to develop and manage a diverse workforce. Top management must scrutinize compensation to insure fairness (White, 1999).

Furthermore, an important aspect that corporations use to manage their workforce diversity is performance management. This is done through performance appraisals that have so far been adopted by a number of corporations, especially state corporations of which through the appraisals abilities and weaknesses of their workforce can be identified and measures that improve the performance of individuals according to their needs established. When this is done, members are empowered and motivated to perform better. Having programs that benefit employees improve the

relationship between them like engaging the employees in long-term planning, avoiding discrimination in hiring and compensating and implementing a code of conduct that help the employees know how to behave towards each other improves work relations especially in a diverse environment ( Kinyanjui, 2013).

- **Receive Feedback from the Workforce and the Management.**

Seek periodic feedback from staff and management in the form of a questionnaire or staff survey. Analyze and communicate the results to staff, identifying any progress made in staff satisfaction and highlight any diversity or conflict issues so that they can be addressed before they become unmanageable (Wambui et al., 2013).

- **Valuing Diversity**

For an organization to be successful it must value diversity. A diversity climate must allow differences to be celebrated instead of merely tolerated. All employees must understand the competitive and moral advantages of diversity. They must respect and support workforce diversity through the recognition of distinctive cultural and religious holidays, ethnicity, age, gender, knowledge, educational background, diet restrictions, and the like. Often, organizations must undergo a workforce transformation before they can successfully achieve the full benefits of diversity (Carnevale & Stone as cited in White, 1999). Understanding, respecting and accepting diversified workforce are considered as key issues for managing projects successfully when doing business with people from different cultural backgrounds. Moreover, effective knowledge sharing with people having different cultural backgrounds and areas of expertise is seen as one of the key issues for a project to be successful (Kivrak et al., 2009).

Although much can be achieved by working with multi-cultural teams, the truly successful construction firms are likely to be those, which embed the change through integrated changes to cross-cultural team selection, joint decision making, communication, teamwork, effective people selection and project selection. In applying the above, it is affirmed that the value of diversified workforce working can be captured at many levels in the organization, being project based or permanent, and furthermore will allow project teams to reach high performance levels consistently (Ochieng & Price, 2010).

Organizations should design and support organizational culture that maximizes the benefits of diversity, and use that culture to manage various groups of organizational members, project teams, business start-up teams, customer service response teams, and top management. It will be worthwhile if these strategies are implemented more often in organizations to increase workforce diversity. As it is found that discrimination is the most frequently encountered barrier for accepting workplace diversity, employees and applicants for employment should be treated fairly in their employment and advancement, based on their abilities, and not based on arbitrary characteristics of color, religion, national origin, gender, age, sexual orientation, or physical handicap. This will eliminate this barrier to a very great extent as diversity is considered valuable asset to every organization. Some of the strategies that lead to inclusiveness that can be practiced in organizations are systematic learning about cultural differences and the way business is conducted in the country where the overseas assignment is, training employees to learn about and be sensitive to cross-cultural differences, encouraging employees to accept overseas assignments, and offering language training, which can improve employees' ability to work with

diverse others with cultural differences and increase inclusiveness in an organization (Patrick & Kumar, 2012).

Focused and successful diversity strategy must address organizational culture change to create a work environment that nurtures teamwork, participation and cohesiveness which positively impact performance. Team building & group training enhances mutual cooperation, reduces role conflicts & increases sharing among the diverse work force. Moreover efficient communication enhances information sharing among employees which increases organizational effectiveness. Further evaluation programmes are important in the organizational system to serve as a base line for current climate for diversity (Gupta, 2013). Moreover, effective knowledge sharing with people having different cultural backgrounds and areas of expertise is seen as one of the key issues for a project to be successful (Kivrak, Ross, Arslan & Tuncan, 2009).

In addition, Otike et al. (n.d) indicated that first to enhance leverage of the existing diversity, a philosophy should be established on diversity that would affect most of the human resources activities with regard to the differences as existing among its employees. Secondly, the top management must emphasize diversity in planning, operations and in the top management. The top management at the branch and the headquarter level should undergo some training on how to leverage on diversity of its workforce. To enhance proper management of diversity, the organisations must include diversity in their strategic plan, as resources for organizational effectiveness.

### **2.5.2 Tools for Effective Management of Workforce Diversity**

The key tool on how to manage diversity in a workplace is planning, implementation and conflict resolution skills. Good communication is one of the best ways to manage diversity in the workplace. Diversity at the workplace is by default as the organization only needs the qualifications, skills and competencies of its workforce. It is therefore important for the organization to find amicable ways of dealing with issues that arise from it with a view of fixing, covering up or deferring the issues with as little hassle as possible. The effort therefore should be management driven from the very top all the way to the bottom, enforced in such a way that behaviour rather than attitudes is changed. This is called diversity management, and also involves the drawing of direct benefits from difference in people and their perspectives. The ultimate objective of managing these diversities is to create an organization whose culture recognizes respects and encourages individual differences. Diversity is a set of conscious practices that involve understanding and appreciating interdependence of humanity, cultures, and the natural environment; practicing mutual respect for qualities and experiences that are different from our own; understanding that diversity includes not only ways of being but also ways of knowing; recognizing that personal, cultural, and institutionalized discrimination creates and sustains privileges for some while creating and sustaining disadvantages for others; and building alliances across differences so that we can work together to eradicate all forms of discrimination ( Wambui, Wangombe, Muthura, Kamau & Jackson, 2013 ).

### **2.5.3 Types of Workforce Diversity**

Workforce diversity is a people concern, focused on the differences and similarities that people bring to an organization. It is usually defined broadly to include

dimensions beyond those specified legally in equal opportunity and affirmative action non-discrimination statutes. Diversity is often interpreted to include dimensions which influence the identities and perspectives that people bring, such as profession, education, parental status and geographic location. For example, Ashton as cited in Dike (2013) grouped diversity into two dimensions namely primary dimension and secondary dimension. The primary dimension which includes age, gender, sexual orientation and so on, shows the main differences among various individuals. These primary differences also have the most impact on first encounters and can be easily seen as filters through which people view the world. The secondary dimensions which consist of religion, education, geographical location, income etc on the other hand, are those qualities that are not seen in the first encounter and can even vary during different encounters. These qualities are only noticed after some interactions occur between individuals.

As a concept, diversity is considered to be inclusive of everyone. Diversity is about learning from others who are not the same, it is about dignity and respect for all and about creating workplace environments and practices that encourage learning from others and capture the advantages of diverse perspectives. Demography is the most basic type of workplace diversity which encompasses age, gender and ethnicity. Demographic diversity can also include professional degrees, work history and veteran and disability status. Life experience is another type of workplace diversity. For example, a military veteran or a retired athlete will have unique ideas and perspectives due to their respective experiences, as will a homemaker, a single parent and a political refugee. Informational diversity refers to differences in educational background and individual knowledge base. For example, an individual with an MBA or PhD will have a different base of knowledge and understanding than a high school

graduate who became a self-made millionaire (Wambui, Wangombe, Muthura, Kamau & Jackson, 2013).

There are a numerous demographic characteristics contributing to diversity. The most widely recognized ones are, age, gender, ethnicity, and education. The changing age composition of the workforce is forcing organizations to make a number of adjustments. Every organization is learning how to deal effectively with age because discrimination cannot be made on that basis. Organizations must start to listen to their older employees, determine how their needs vary from those of younger workers, and learn to draw from the expertise and experience that older employees can offer. Organizations must also learn how to deal with younger employees, who have values clearly different from those of their older counterparts. There are also changes occurring in gender composition as women entering the workforce have increased over the last four decades. However, this increase is not as fast as their male counterparts due to family responsibilities. Employees have different levels of education hence this is an aspect of diversity that should be well handled so that everyone can positively contribute towards organizational effectiveness despite their level of education. Most organizations with a diverse workforce find it hard to cope with the above challenges and create an encouraging work atmosphere that consequently may influence the degree of performance. The way age, gender and educational level as dimensions of diversity are managed may have an impact on the performance of individual workers and consequently the success of the project (Munjuri, 2012).

#### **2.5.4 Merits of Managing Workforce Diversity to an Organisation**

By managing diversity at the workplace, organizations create an inclusive and harmonious environment which enhances good reputation of the organization with people seeking jobs hence able to attract the best workers in the market. The employees feel valued, rewarded and motivated while working in an organization that manages diversity. According to a research done worldwide three million employees indicated that diversity brings about satisfaction and organizational performance. It was also found out that creating an inclusive and harmonious environment was a key driver in employee engagement and commitment. Managing diversity creates greater employee engagement which at the end leads to reduced labour turnover (Wambui, Wangombe, Muthura, Kamau & Jackson, 2013 ).

The repercussions for not managing diversity would lead to lack of skills, competencies, and interests in employees, which will ultimately increase employee turnover and reduce individuals' and organizations' performance to a great extent. Organizations that manage diversity are recipients of more commitment, and better satisfied as well as better performing employees. Diversity management intends to create and maintain a positive work environment where the similarities and differences of individuals are valued, so that all can reach their potential and maximize their contributions to an organization's strategic goals and objectives. Diversity management ensures that all employees have the opportunity to maximize their potential and enhance their self-development and their contribution to the organization (Patrick & Kumar, 2012).



### **2.5.5 Challenges of Workforce Diversity to an Organisation**

Workforce diversity exists when companies hire employees from various backgrounds and experiences. Many companies see workforce diversity as an investment toward building a better business. Although workplace diversity provides many benefits, it also poses many challenges to employees and managers. To reap the benefits of workplace diversity, employees and managers must understand the challenges and know how to effectively deal with them. Diversity and inclusion affect not only the businesses' people and operations internally but also their customers, suppliers, and other external stakeholders.

Communication barriers lead to problems in a company attempting to create a diverse workplace. When companies hire employees of other cultures whose first language is not English or Twi, employees and managers may experience difficulties communicating with one another. This can lead to misunderstandings and therefore affect the project success. For example, if a manager gives instructions about completing a certain task to an employee who fails to fully comprehend the instructions, the employee may make mistakes if he tries to complete the task without receiving clarity. As a solution, it would be helpful for organizations to hire bilingual employees who can mediate and reduce language and communication barriers.

Although workplace diversity benefits an organization as a whole, some employees and managers may not react positively to changes made. Employees who oppose workforce diversity usually reject new ideas and make work environments more difficult. If the company does not handle opposition properly, workplace diversity initiatives may not provide the intended benefits to the company. To deal with

opposition, companies should explain the reasons for diversity and what benefits changes in diversity bring to management and employees. Alleviating fears some people possess about workplace diversity may reduce much of the opposition.

Although on paper workforce diversity may seem like a good idea, many companies experience challenges when attempting to implement changes. Employers must develop strategies for implementation, analyze results and make necessary changes if results do not meet the established goals. The implementation process may present challenges to everyone involved, and frustrations may arise because implementation is not as smooth as expected. To help with implementation, employers may decide to hire experienced professionals who specialize in managing workforce diversity. Experienced professionals understand the challenges and know how to handle them.

Once workplace diversity is implemented, companies must effectively manage the changes in policies. This presents a challenge for many organizations. Challenges in managing workplace diversity can stem from several reasons, such as taking the wrong approach to solving diversity issues. For example, a company may adopt affirmative action policies in an attempt to solve diversity problems. Affirmative action is about giving opportunity to previously disadvantaged workers. Hiring based solely on race may not solve diversity issues. Managers face challenges when new employees from diverse backgrounds interact with long-standing employees. As a solution, many companies offer training programs to managers to help them effectively manage their newly diverse departments (Wambui, Wangombe, Muthura, Kamau & Jackson, 2013)

## **2.6 Overview of Construction Project**

### **2.6.1 Meaning/Nature of Construction Project**

A project is a unique endeavour to produce a set of deliverables within clearly specified time, cost and quality constraints (Westland, 2006). Additionally, Labuschagne (2005) defined project as a temporary undertaking with a specific objective as well as definite beginning and end or as a temporary endeavour undertaken to produce a only one of its kind product or service. Furthermore, A project can be defined, whether it is in construction or not, by the following characteristics: a defined goal or objective, specific tasks to be performed, a defined beginning and end, and finally resources being consumed.

The goal of construction project is to build something. What makes the construction industry different from other industries is that its projects are large, built on-site, and generally unique. Time, money, labor, equipment, and, materials are all examples of the kinds of resources that are consumed by the project. Projects begin with a declared goal established by the owner and achieved by the project team. As the team begins to design, estimate, and plan out the project, the members learn more about the project than was known when the goal was first established. This often leads to a redefinition of the stated project goals (Elbeltag, 2009).

A project is specifications designed to meet customer needs. A construction project is completed through a combination of many events and interactions, planned or unplanned, over the life of a facility, with changing participants and processes in Project is a complex, non-routine, one-time effort limited by time, budget and

resource and performance a constantly changing environment (Arslan & Kivrak as cited in Babu & Sudhakar , 2015).

### **2.6.2 Concept of Construction Project Life Cycle**

A project life cycle can be defined as “an orderly sequence of integrated activities, performed in phases, leading to success (Labuschagne, 2005).The project life cycle may be considered as a process through which a project is undertaken from beginning to end. This process is often very complex; however, it can be broken into several stages (Elbeltaf, 2009).The expressions used to describe the phases of the project life-cycle vary between type of project and industry. Project management books usually omit the operational phase because they tend to be written from a consultant’s or contractor’s perspective. Nevertheless, a good operational performance is vital for all projects. The experience during this phase will have a dramatic impact on the perceived or real success of a project (Anton, 1988).

### **2.6.3 Construction Project Participants/Team**

The construction industry is a project-based industry. Each project needs different people in accordance with their professionalism, knowledge, and experience, and requires them to work and coordinate with others from different companies. The construction projects need different professionals with various expertise to handle them. The works of these professionals are interrelated and therefore have to depend on other members in order to perform their functions successfully. It is sufficient to say that teamwork is dominant in construction’s cultural tradition at the foundation of successful construction projects. Teams and teamwork in construction have been impacted by diverse and exceptional features in the construction industry, as in the

way it goes about its business. The construction project team comprises of a team of diverse people and cultural backgrounds (Azmy, 2012).

Uher and Loosemore as cited in Azmy (2012) listed the participants of a typical construction project team as the following: Client, Project Manager/Site Engineer, Financier, Legal Consultant, Design Leader (Architect or Structural Engineer), Other Design Consultants, Main Contractor (managing director), Subcontractors, Cost Consultant, Other Consultants (depending on project needs) and end user of the completed project.

However, the above list is subjected to the size and types of project, as well as the project delivery method chosen. Different types of delivery methods require a different project team composition. Common project team members include owner, project manager, architect, and engineers, as well as contractors and subcontractors. The owner or client of a construction project can either be a public or private entity. Typically, it is the owner who is responsible for providing the project's scope and requirements, as well as funding for the project. The design team is composed of architects, engineers, and consultants, who generate the construction documents for the owner. The contractor typically builds a unique project in a viable setting and relies heavily on subcontracted and sub-subcontracted labor. Additionally, other participants, such as city planners, zone authorities, union officials, safety specialists, health specialists, government engineers, vendors, users, subcontractors, special issue groups, and many others, also influence a construction project team.

Construction project team members bring together various skills and knowledge to fill common roles, but the people who fill these roles vary from project to project. The teams are not necessarily successful unless they improve the effective and efficient delivery of the project, such as by removing the traditional barriers between team members (e.g., designers and construction managers) (Azmy, 2012). According to Azmy, the team effectiveness factors are Team Goals and Objectives, Team Leadership, Team Relationship, Team Roles and Responsibilities, Team Communication, and Trust and Values. These factors are utilized to develop a Team Effectiveness Survey geared towards team members in a construction project.

## **2.7 Construction Project Success**

### **2.7.1. What is a Successful Project?**

Since the outcomes of the capital projects have strategic implications on the success and profitability of the business, the ability to deliver based on pre-determined objectives should be critical to the company's success. Project success can be defined as meeting the required expectation of the stakeholders and achieving its intended purpose. Success criteria or a person's definition of success as it relates to construction often changes from project to project depending on participants, scope of services, project size, sophistication of the owner related to the design of facilities, technological implications, and a variety of other factors (Arslan & Kivrak as cited in Babu & Sudhakar, 2015).

Amponsah (2012) considers three basic words that run through the project management book of knowledge. These are customer satisfaction, quality and time. According to him, these were the most important ingredients for a project to be

considered a success. Project management action is a key for project success. Competent Project Managers can use management tools to plan and execute their construction projects to maximize the project's chances of success. The variables in project management include adequate communication; control mechanisms; feedback capabilities; troubleshooting; coordination effectiveness; decision making effectiveness; monitoring; project organization structure; plan and schedule followed, and related previous management experience. A number of attributes will affect this factor, including the communication system, control mechanism, feedback capabilities, planning effort, organization structure, safety and quality assurance program, control of subcontractors' works, and finally the overall managerial actions (Babu & Sudhakar, 2015).

A construction project requires team spirit; therefore team building is important among different parties. Team effort by all parties to a contract such as owner, architect, construction manager, contractor, and subcontractors is a crucial ingredient for the successful completion of a project (Babu & Sudhakar, 2015). It is therefore imperative for a diversified workforce in every organization to be well managed in order to develop team spirit needed for a successful completion of construction projects.

The success of the project can strongly depend on the availability of an effective management system. It is indicated that managing demographic differences among workforce is also a part of this system and considered it as having a possible effect on the project success. It is obvious that establishing a management system that includes managing people from different cultural backgrounds is highly essential for the

success. At this point, top management support plays a vital role. Ignoring demographic differences among workforce within the company can seriously lead to inefficiencies and reduce productivity (Kivrak, Ross, Arslan & Tunçan, 2009).

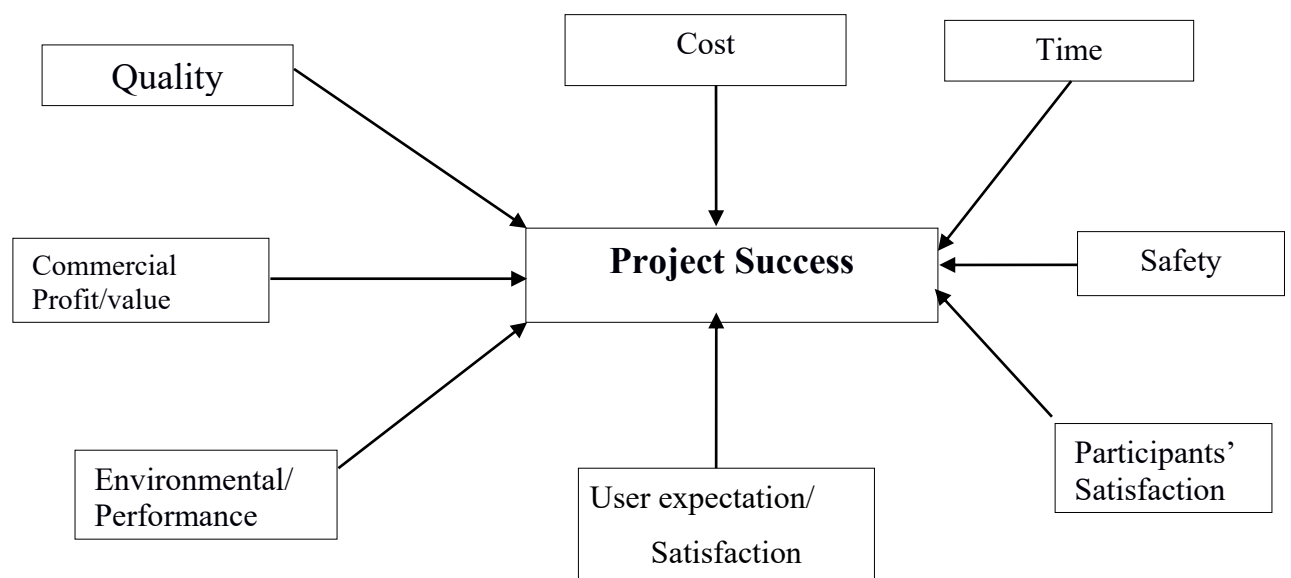
The construction industry is a complex and huge industry with several key players with different interests. Therefore, a project can be successful in its entirety when the construction organization is able to effectively manage all human and nonhuman resources; this is done in order to deliver a facility that satisfies and exceeds the needs of the client at the time it is required and within considerable budget range (Farinde & Sillars, 2012).

Undoubtedly, to characterize a project as successful or a failed is not an easy task. One of the problems encountered is that the different parties involved in the project view success in a different way. The science of Project Management has not yet succeeded in reaching a consensus for the definition of project success. It is remarkable that the triple constraint is the sole universally accepted mean of evaluating projects. In other words, a project is characterized as successful if it is finished on or before the established schedules, if it gets completed within the budget guidelines and operates according to the customer specifications. However, almost all researchers agree that using only the golden triangle is ineffective. They propose additional parameters in addition to the golden triangle in order to develop a more complete set of criteria. Apart from the triple constraint, other studies showed that client satisfaction or client acceptance and the satisfaction of key stakeholders play significant roles in the evaluation of project success.

The study of various Project Success definitions showed that the evaluation of the project success will vary according to the type of the rater (different types of person,



different jobs, age, education, work position, etc.). Project stakeholders, such as customers, project managers, users, top-management, sponsors and so on, view project success differently. Consequently, project success could be measured from several viewpoints. “Therefore, project success could be defined as the level of satisfaction expressed by the key stakeholders and always in accordance with the fulfillment of the three core parameters” (Boukanos, 2007). The three core parameters include cost, quality and time.



**Figure 2. 1: Consolidated model for project success**  
**Source: Adopted from Chan (2001)**

Anton (1988) also argues that measuring success is complex and a project is hardly ever a disaster or failure for all stakeholders during all phases in the project life-cycle. Therefore, a project can be a success for one party and a disaster for another. Success is also time dependent. A project may be perceived a success one day and a failure the next. The project objective for the Human Resources Perspective is to create a competent and motivated project team that would fortify the results of other perspectives. It can be assumed that the human factor is the “indicator” of project

success. It is the project team that will deliver the product and provide services, deal with all problems and finally interact with the end-users and the customer. Consequently, the successful completion of all the above tasks will bring the desired financial results to the firm. In the Ghanaian construction industry, it is essential to continually improving the skills of the project personnel and establishing a policy of motivating all parties involved.

The negative working environment led to some of the project team members to quit. It is true that in many cases Project Managers are trying to meet impossible goals by sacrificing the people on project team. They get focused only on budgets and schedules forgetting the needs of the individual team members (Boukanos, 2007). For example, in working environment where discrimination on the basis of sex, age, ethnicity, and the like exist, there is likelihood of high employees' turnover.

Additionally, Boukanos (2007) admitted to the fact that one can realize the importance of the human dimension in relation with project success. According to him, both researchers and the professionals in the work place believe that the human factor has a significant impact on the project outcome. To him, it is very difficult for organizations to achieve project success if the level of personnel satisfaction is low. If the project team or the personnel are not pleased, this will surely have a certain impact on the project success. The personnel may transfer this dissatisfaction to the clients or the manager, simply by showing their discomfort with their "working tools.

The literature on project success reveals that cost, time, quality and management are the four basic factors of success measurement and the most important of Critical Success Factors in construction projects success. Automatically, when the

construction project completed with the accurate time, budget and quality, the project is becoming success. Therefore, this Critical Success Factors (CSFs) are used as guide factors to predict the probability of project success. Other measures, such as safety, technology, satisfaction, and etc are attracting increasing attention (Ramlee, Tammy, Raja Mohd Noor, Ainun Musir, Abdul Karim, Chan & Mohd Nasir 2016). Ofori (2013) advises that in order to improve project quality in Ghana attention must be paid to the 4Cs – communication, commitment, competency, and coordination (Ofori, 2013).

At first, project success was known to be reaching the objectives and the planned results in compliance with predetermined conditions of time, cost and performance. As knowledge in project management field developed, the “golden triangle” was considered not enough to define project success. The five factors with highest implications for projects’ success are: “clearly defined goal and directions, competent project team members, clearly defined roles and responsibilities, communication and consultation with stakeholders and compliance with the planned budget, time frame and performance criteria” (Beleiu, Crisan & Nistor, n.d).

Babu & Sudhakar (2015) argues that researches on project success show that it is impossible to generate a universal checklist of project success criteria suitable for all projects. Success criteria will differ from project to project depending on participants, scope of services, project size, and sophistication of the owner related to the design of facilities, technological implications, and a variety of other factors. On the other hand, common threads relating to success criteria often develop not only with an individual project but across the industry as we relate success to the perceptions and expectations of the owner, designer, or contractor.

### **2.7.2 Relationship between workforce diversity management and project success**

In international construction projects there are many factors that have an effect on the success of the projects. Diversified workforce has also the potential to impact on the success of these projects. Therefore, companies have to consider the issues of diversity in their daily businesses to operate successfully in the global marketplace. Research showed that the managers see a direct relationship between project success and diversity. It is established that, successfully managing diversity in workforce was seen as one of the key elements in project success. On the other hand, ignoring and mismanaging diversity was considered as one of the important causes for project failure (Kivrak, Ross, Arslan & Tuncan, 2009).

It is suggested that diversity in construction projects bring new approaches and new ideas for solving the problems encountered in project implementation. Diversity in knowledge, skills, experience, abilities and having people from various backgrounds with varied methods of problem solving, information process and varied perceptions enhances project performance. Positive outcomes are also associated with diverse and multicultural teams such as high productivity, creativity and adaptability. However, there are also challenges associated with diversity. For example, having diverse team and multicultural workforce create tensions, conflicting interests, poor communication and low trust levels. Managing these challenges can result in gaining benefits of workforce diversity (Moayyad & Udechukwu, 2015)

Another study also admitted to the fact that cultural differences between the project engineer and community led to frustration and issues for management of the project. In particular, differing cultural perceptions led to difficulties with communication and

participation, and problems arose when the management structure selected by the engineer proved inappropriate for the local cultural context (Furber, Smith & Crapper, 2012).

Additionally, it is considered that team diversity in terms of gender, tribe, and religion among others if managed well do not affect team output and final project negatively. Instead, team diversity rather improves cohesiveness or collaboration among team members and does have a significant and positive relationship with the project success (Duffour, 2014; Karim, 2016). Subsequently, research establishes that workplace diversity has contributed to more productivity but some factors such as differential treatment could hinder its successful implementation and hence company success. Big companies are more passionate about diversifying their workforce and see its implementation as a norm and continuously strive to improve diversity management, whereas small companies see it as a choice and evitable when they feel it a burden or cannot effectively manage it (Dike, 2013).

However, it is also argued that the effect of diversity depends on the dimensions of diversity. Different dimensions have a different relation with performance. Age diversity has a negative impact on organizational performance. Ethnic diversity has a positive impact on sales, productivity, market share & innovativeness. Gender diversity can have either positive or negative impact on organizational performance. An again, moderate level of gender diversity increases competitive advantage while higher level of gender diversity in organizations has a negative impact on organizational performance (Gupta, 2013).

Related research conclusively proved that the diversity of all three demographic profiles of the workforce - namely age, gender and ethnicity - does not significantly

impact the performance of employees and the project (Darwin & Palanisamy, 2015). In the similar study, the negative correlation indicates that the diversity either based on demographic or social-cultural differences, if not managed well, would work against the organizational effectiveness. This is made worse by a weak diversity management culture. To them, although, there are deliberate efforts to capitalize on diversity at organisation, very little is being achieved, and negative diversity is likely to affect organizational effectiveness, if not properly addressed ( Otike, Messah & Mwalekwa, n.d).

## **2.8 Theoretical perspective**

Many economists have developed theories of workforce diversity and their performance towards the success or failure of project, but few such as the following have sought to capture both the costs and benefits of heterogeneity. Sparber (2007) developed a model of production that includes a term to capture the costs of inter-group communication, allows complementarities between workers of different types, and yet still nests the traditional Solow growth model within it. The Author suggested that a simple relationship between intergroup complementarities and costs of interaction determines whether diversity generates direct gains or losses in production or in project delivery.

According to Hamilton, Nickerson and Owan (2004) model, diversity in skills and ability may enhance the performance of the workforce because more skilled workers help and teach the less skilled, and teammates gain more from task coordination. However, demographic diversity potentially inhibits within-team communication and

thus reduces both the effectiveness of collaboration and peer pressure, as well as the non-pecuniary benefit of joining the team.

Social classification and similarity-attraction theory calculate negative effects, such as reduction in within-group communication, decreased satisfaction and commitment, and increased labour turnover. However, from the information and decision-making perspective, positive effects of diversity are hypothesized, mainly because more diverse workforces are expected to process information differently, as team members may bring together different viewpoints (Williams et al. as cited in Bharti, 2015).

Economic theory suggests that workforce diversity may affect firm performance differently and through various channels. Diversity in skills and education may generate knowledge spillovers and skill complementarities among the employees within a firm (as long as workers' information are relevant), which positively affects firm performance. Similarly, diversity in age can be beneficial to firms because there are complementarities between the human capital of younger and older workers. Younger employees have knowledge of new technologies and IT and older employees have a better understanding and experience with the intra-firm structures and the operating process (Lazear as cited in Parrotta et al., 2011).

## **2.9 Conceptual framework**

There is diversity among construction professionals, especially in their perception of the prioritisation of construction management practices. Theoretically, this statement supports the multidisciplinary nature of the construction industry. The industry is diverse, where different construction professionals with diverse backgrounds and

trainings come together to achieve construction goals. Practically, this statement further exposes the subsisting differences among construction professionals within the construction industry. Among them are architects, quantity surveyors, builders and civil engineers (Olanipekun, Aje & Adedokun, 2014).

In many countries including Ghana companies are under lawmaking pressure to diversify their workforce either through quotas or affirmative action. Workforce diversity has thus become an essential business concern. Moreover Globalization, migration, initiatives for social justice, and other developments have made diversity issues very important for every organization in many nations (Wambui, Wangombe & Jackson, 2013) including Ghana.

For example, in most countries like Ghana Organizations are global today. This has led to an increase in the heterogeneousness among employees and has increased the challenge of organizations to manage diverse employees. Incorporating diverse people and their perspectives has become a major concern for every organization. The repercussions for not managing workforce diversity would lead to lack of skills, competencies, and interests in employees, which will ultimately increase employee turnover and reduce individuals' and organizations' performance and to a great extent affect the success of projects.. Organizations that manage diversity are recipients of more commitment, and better satisfied as well as better performing employee (Patrick & Kumar, 2012).

Many companies see workforce diversity as an investment toward building a better business. Although workplace diversity provides many benefits, it also poses many challenges to employees and managers. To reap the benefits of workplace diversity,



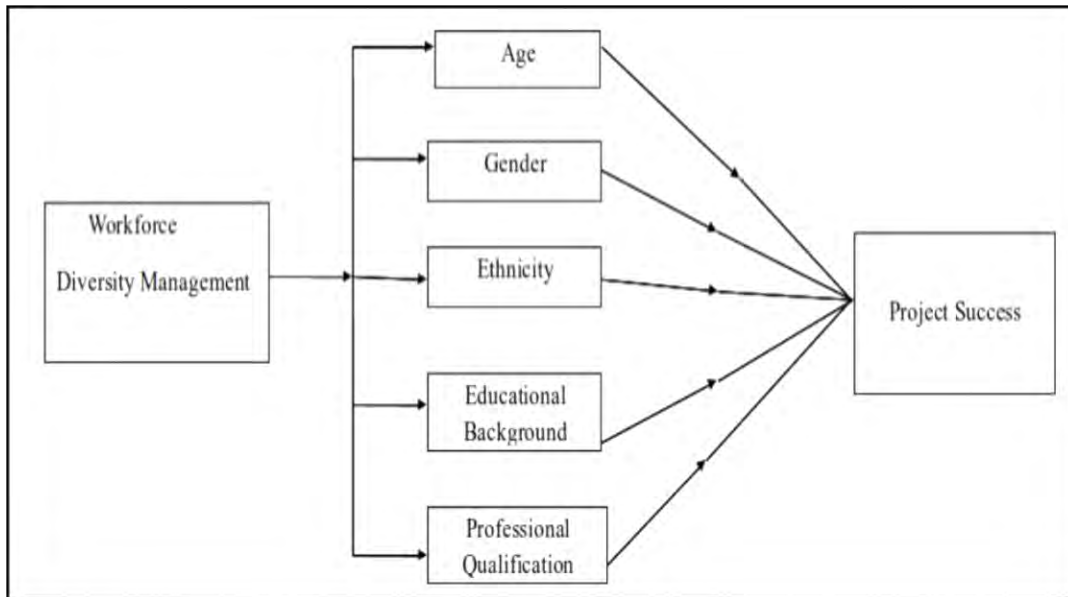
employees and managers must understand the challenges and know how to effectively manage the diversified work workforce (Wambui, Wangombe & Jackson, 2013) because the way diversity is valued by management is what determines the relationship between diversity itself and the project success. Additionally, Kivrak, Ross, Arslan, & Tuncan, (2009) advise that successfully managing diversified workforce is seen as one of the key element in project success. On the other hand, ignoring and mismanaging cultural differences are considered as one of the important causes for project failure.

It is established that, the Construction industry teams are made up different types of diversity which include, surface-level diversity and deep-level diversity. The surface level diversity includes, differences in age, gender, ethnicity, educational background, professional qualification among others, whereas the deep level diversity includes psychological differences, differences in values among others. This is because the industry consists of a lot of different people from diverse background (Duffour, 2014).

In connection with the project objectives this part presents the development of a conceptual framework to position the relationship between workforce diversity management and construction project success. The conceptual framework will help in investigating the association between these variables and also aid in finding out if workforce diversity management has direct implications for construction project success.

Figure 2.2 shows the conceptual framework of the study. It depicts the relationship between workforce diversity management and project success. From the literature review, researchers realize the most widely recognised variables of workforce

diversity in construction industry that affect project success and these include age, gender, ethnicity, educational background and professional qualification.



**Figure 2. 2: Conceptual Framework**

Source: Researcher Field Construct, 2018

The success of any organizations depends on the ability to manage a diverse body of talent that can bring innovative ideas, perspectives and views to their work. The challenge and problems of workplace diversity can be turned into a strategic organizational asset if an organization is able to capitalize on this Melting pot of diverse talents (weiliang, mun, chern, fong & yuan, 2011).

Indisputably, to describe a project as successful or a failed is not an easy task. Different parties involved in the project view success in a different way. The knowledge of Project Management has not yet succeeded in getting a consensus for the definition of project success. It is remarkable that the triple constraint is the sole universally accepted mean of evaluating projects. In other words, a project is described as successful if it is finished on or before the establish schedules, if it gets

completed within the budget guidelines and operates according to the customer specifications.

However, almost all researchers agree that using only the golden triangle is ineffective. They suggest additional parameters in addition to the golden triangle in order to develop a more comprehensive set of criteria. Apart from the triple constraint, other studies showed that client satisfaction or client acceptance and the satisfaction of key stakeholders play significant role to the evaluation of project success. Therefore the researcher considers project as successful for this study based on time, budget, quality, and client satisfaction. The independence variable in this study is workforce diversity management and the dependence variable is project success.

**Table 2. 1: Types of diversity**

<b>Type of diversity</b>	<b>Description</b>
Age	The length of time a person has lived since birth. That is how old one is (Maphosa, 2015).
Gender	State of being male or female. It has to do more with sexual orientation than a biological state (Maphosa, 2015).
Ethnicity	Refers more to the cultural factors than biological which a person may have in common with others. Example, language, nationality, belief (Maphosa, 2015).
Educational level	This refers to the highest level of education obtained, example diploma or degree (Maphosa, 2015).
Professional qualification	This refers to the professionals with different background who have the expertise in specific areas.

**Source: Adopted from Maphosa (2015).**

**Table 2. 2: Project success**

<b>Project success</b>	<b>Description</b>
Cost	This refers to the price of the project or the amount that the project costs.
Quality	Meeting the required standard or specification. It can be measured by the amount of defects during and after the project (Maphosa, 2015).
Time/ schedule	The duration of the project, and can be broken down into activity/task duration. It indicates when activity or task starts and ends (Maphosa, 2015).
Client satisfaction	Meeting the expectations of the client or the owner of the project.

**Source: Adopted from Maphosa (2015)**

## **2.10 Summary**

This chapter discussed the construction industry in general and its relationship to the national economy, concept of diversity and its meaning, legal framework of diversity, barriersto diversity and equality in construction industry, Managing workforce diversity in organizations,The chapter also talked onOverview of construction project andConstruction project success.It also elaborated on the theoretical perspective andconceptual framework / theoretical framework of the study.

The literature revealed that the managers see a direct relationship between project success and diversity. It further revealed that, successfully managing diversity in workforce was seen as one of the key elements in project success. On the other hand, ignoring and mismanaging diversity was considered as one of the important causes for project failure(Kivrak, Ross, Arslan & Tuncan, 2009). It alsoreviewed that diversity in construction projects bring new approaches and new ideas for solving the problems encountered in project implementation.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

Research methods are those methods/techniques used by the researcher during the course of studying his research problem (Kothari, 2004). This chapter presents the methods that were used during the research study and the methods adopted were considered most suitable to enable accurate findings to be obtained. The basic contents in this chapter include: research design, the study approach, study population, Sources of data, Data collection instrument, data collection procedure, data analysis and ethical consideration.

#### **3.1 Research Design**

The research design is the conceptual structure within which the research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. Therefore the research design can be defined as a master plan for the determined methods, structure, and strategy of a research to find out alternative tools to solve the problems, and to minimize the variances (Kothari, 2004).

The researcher's ability to answer the research questions and achieve the set objectives is reliant on the kind of research design employed. Saunders, et. al. as cited in Duffour (2014) identified the following research designs- experiment; survey; archival research; case study; ethnography; action research; grounded theory; and narrative inquiry. Burton (2007) gave the types of survey as cross sectional, longitudinal, trend, time cohort and panel. According to Chris and Diane (2004), one of the most common and famous study designs is the cross-sectional survey design. In this type of research study, either the entire population or a subset thereof is selected,

and from these individuals, data are collected to help answer research questions of interest. It is known as cross-sectional because the information about the variables that is gathered represents what is going on at only one point in time.

### **3.1.1 Research Design adopted for the Study**

The research design adopted is a cross-sectional survey with questionnaire to provide answers to the research questions or to find out whether the hypothesis would be supported or rejected. The research was cross-sectional because it was meant for a particular phenomenon and at a particular time. Also cross-sectional survey could assist in finding the relationship between the independent and the dependent variables (Chris & Diane, 2004).

### **3.2 The Study Approach/Strategy**

A research approach is a plan of action that gives direction to conduct research systematically and efficiently. It plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation (Creswell, 2014). The three common approaches to conducting research are quantitative, qualitative, and mixed methods. The researcher anticipates the type of data required to answer the research questions. For instance, it should be considered whether the data to be collected is numerical, textual, or both numerical and textual and for that matter decide on the type of approach to be employed. Based on this assessment, the researcher selects one of the three above mentioned approaches to conduct research. Researchers normally choose the quantitative approach to respond to research questions requiring numerical data, the qualitative approach for research questions requiring textual data, and the mixed methods

approach for research questions requiring both numerical and textual data (Williams, 2007; Creswell, 2003). The quantitative method seeks to collect data which is factual and also helps the researcher to test relationships between different facts. Quantitative research approach/strategy was chosen so as to test the relationship between independent variable (Workforce Diversity management) and the dependent variable (civil engineering project success).

### **3.3 Population**

Population or universe means, the total mass of observations, which is the parent group from which a sample is to be formed. But in Research Methodology population means characteristics of a specific group (Prabhat & Meenu, 2015). A population can be defined as all people or items with the characteristics that one wishes to study (Bhattacharjee, 2012). Moreover, a population can be viewed as all people or items with particular characteristics one wishes to understand. The main objective of this study is to analyse the implications of workforce diversity management for civil engineering project success.

#### **3.3.1 Study population**

The target population for the study comprised senior (most experience in terms of number of years of working in the construction industry) site engineers and managing directors of 60 road construction firms registered with the Association of Road Contractors of Ghana (ASROC) in Ashanti Region giving a total population size of 120. This is because they oversee all the activities of the firms and could therefore be in good position to provide the needed information.

### 3.3.2 Justification for the Selection of the population

- The road construction firms have relatively more employees with diverse demographic background and could therefore be a good fit for the study.
- Again, they mostly undertake government projects which are funded by central government. Right now government is doing all he can to promote diversity in all public institutions. It is therefore justifiable to study population which undertakes government projects when it comes to the issue of diversity.
- Ashanti Region was chosen because being the highest densely populated region is also relatively located in the middle of Ghana. For this reason most of the registered road construction firms working across the country are found registered under Ashanti Region due to its proximity to all the other regions. This simply means that if Ashanti region is used for the study, majority of the registered road construction firms in the country could be captured and could therefore be a good representative.

Generally, the main disadvantages of Census surveys are high cost involved and more time to print, distribute, and collect data which all increase due to the increased in volume of materials and labor required (Parker 2011). According to the association of registered road contractors(ASROC) in Ashanti Region, sixty (60) construction firms have registered. Looking at the size of the population, the researcher decided to use census survey by including all the population (registered road construction firms) in the study, because the size of the population will not give larger volumes of data that requires high cost and more time for data entry, data cleaning/verification, data analysis, and report production.



Some of the Advantages of census survey are listed below:

- One of the greatest advantages of a census survey is that all employees have the same opportunity to participate. Some employees may still choose not to participate, but at least the opportunity to do so is presented. No one person or group can feel slighted or left out.
- Accuracy concerns are reduced as compare to sample surveys. Sample surveys, when conducted properly, are certainly capable of yielding representative results, however, census surveys tend to enhance feelings of security surrounding the accuracy of the results.
- A census survey is easier to administer, because it includes all persons. The volume of surveys that need to be distributed may increase with a census survey, but figuring out who receives a survey is clear; that is everyone (Parker 2011).

### **3.4 Sampling Technique and Sample Size**

The sampling technique adopted was a census. This involved administering the survey questionnaires to all the target population. Therefore the sample size was 120 which is the same as the populaiont size.

### **3.5 Sources of data**

Data refer to raw facts without any processing, organizing or analysis, and hence they have little meaning, and few benefits to the managers and decision-makers. They are un-interpreted materials on which a decision is to be based, and depend on facts which may include anything known to be true or exist. They are bits of content in either text or numerical format (sequences of numbers, letters, pictures, etc.). They are normally

structured, but do not bear any information to use them in a particular context (Mohajan 2016). The heart of any research design is collecting data. Data collection plays a very crucial role in the statistical analysis. In research, there are different methods used to gather information, all of which fall into two categories, these two categories of data are the primary and secondary i.e. primary and secondary data (Douglas, 2015 & Gangraden.d).

### **3.5.1 Primary data**

Primary data is one which is collected for the first time by the researcher. Primary data is a real-time data which is factual and original. It is collected with an aim for getting solution to the problem at hand; its collection is a very involved process. This data sources include surveys, observations, experiments, questionnaire, personal interview etc (Oluwatosin, 2017). Therefore the primary data for this study was obtained mainly through the questionnaires given to the respondents.

### **3.5.2 Secondary data**

Secondary data is the data already collected or produced by others. It is just the analysis and interpretation of the primary data. Secondary data is the already existing data collected by the investigator agencies and organisations earlier. Sources of Secondary data include government publications, websites, books, journal articles, internal records etc. (Oluwatosin, 2017).

This source was used by the researcher to present evidence, back up arguments and statements, or help represent an opinion by using and citing multiple sources (Twin cities campus library 2013). The researcher therefore relied on government publications, websites, books, journal articles, internal records etc. on workforce diversity, diversity management, construction project success and other related

publications for the secondary data. This created the framework upon which the research was conducted

### **3.6 Data collection instrument**

Questionnaire was employed by the researcher to collect data from respondents for the study. Questionnaire as one of the primary sources of data is an observational technique which comprises series of items presented to a respondent in a written form, in which the individual is expected to respond in writing. Here the respondents are given list of written items which they respond to by ticking the one they considers appropriate (Oluwatosin, 2017).

Closed-ended questionnaires were employed to extract appropriate responses from the respondents because these type of questionnaires were easier for respondents to answer and also helps the researchers to analyze the data easily (Duffour, 2014). These Questionnaires were mainly used to gather data from managing directors and site engineers within the registered road construction firms in Ashanti Region and also because it was easy to administer besides their ability to draw out significant responses from respondents. The nature of the questionnaire enhanced respondents' ability to produce specific responses. The content of the questionnaires were mainly depended on the objectives of the study. The questionnaires were divided into two main parts; thus part 1 and part 2. The part 1 talked about the demographic profile of the respondents while part 2 also talked about the main objectives of the study. The form of questions in the questionnaire was the likert scale format – ranging from Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Agree (5). Questionnaires were used because of the following reasons:

- The questionnaire is relatively less expensive procedure

- It is simply administered to the respondents with a minimum of explanation
- The questionnaire can often be administered to a large number of individuals simultaneously
- With little amount of funds, it is usually possible to cover a wider area and obtain information from more people
- The impersonal nature of a questionnaire -its standardised wording, its standardised order of questions, its standardised instructions for recording responsesensures some uniformity from one measurement situation to another
- Respondents may have greater confidence because of their anonymity, and thus feel more free to express views which they fear might be disapproved of or might land them into trouble.
- Questionnaire places less pressure on the subject for immediate response
- When the subject is given ample time for filling in the questionnaire, he can consider each point carefully(Gangrade n.d).

### **3.6.1 Validity**

Validity is defined as the extent to which a concept is accurately measured in a quantitative study. It simply looks at whether the instrument adequately covers all the content that it should with respect to the variable. In other words, does the instrument cover the entire domain related to the variable, or construct it was designed to measure(Heale &Twycross, 2015)?Instrument validity was achieved by discussing the questionnaire with colleague, there after adjustments was done before submission to the supervisor to assess the face validity. This helped to assess the appropriateness of sentence construction, comprehensiveness of instruments and language clarity. Comments were received on the acceptability of the instrument in terms of; length

and the privacy of respondents. These comments were used in designing the final instrument that was used to collect the primary data for the study.

### **3.6.2 Reliability**

According to Heale and Twycross (2015), reliability relates to the consistency of a measure. This agrees with Mugenda and Mugenda as cited in Shiba (2015) who stated that reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. In order to measure internal consistency among items, Cronbach's Alpha ( $\alpha$ ) was used. All the Cronbach's Alpha ( $\alpha$ ) results were above 0.70 except challenges to the management of workforce diversity (0.690). According to Nunnally and Berntein (1994), Cronbach's Alpha ( $\alpha$ ) values above 0.70 are considered acceptable. The Cronbach's Alpha ( $\alpha$ ) scores for this study ranges from 0.690 for challenges to managing diversity to 0.891 for strategies for enhancing project performance through effective management of diversity (Appendix B). Also the questionnaire was reviewed by the supervisor to ensure that they are capable of capturing the required data.

### **3.7 Data collection procedure**

Research instruments were administered to solicit information from the 60 managing directors and 60 site engineers. The researcher adopted the self-administered type of questionnaire where the questionnaires were delivered to the respondents personally through visits. The respondents were given ample time to complete the questionnaires and collected later

### **3.8 Data analysis**

Quantitative data analysis involved the use of both descriptive and inferential statistics in the Statistical Package for Social Scientists (SPSS). Descriptive statistics entailed determination of measures of central tendency such as mean and measures of dispersion such as standard deviation and percentages. Inferential statistics also comprised Kendall's tau-b correlation and ANOVA test.

### **3.9 Ethical Considerations**

The researcher respected anonymity of the respondents by ensuring confidentiality of the respondents and the data provided. This was done through assurance that the information they provided would be purely for academic purposes and that their identity would not be disclosed to anyone. This was illuminated in the introductory part of the questionnaire. All the sources of literature have been acknowledged through citations and referencing. Finally, objectivity would be ensured during report writing to avoid personal bias.

### **3.10 Summary**

In this chapter, the research design and the approach are discussed. A quantitative approach was followed, which involved the administering of questionnaires to the respondents. The use of questionnaires as research instrument was deemed to be the best for this study and sufficient for data collection. The questionnaires were reviewed by a colleague research student and the supervisor, and based on that a few changes were made to the final questionnaires. The next chapter presents the results from the analysis of data collected from the respondents. The implications of workforce diversity for civil engineering project success will be deduced from the results and findings.

## CHAPTER FOUR

### PRESENTATION AND ANALYSIS OF RESULTS

#### 4.1 Introduction

This chapter presents and analyses the results of the data gathered from the field. It focuses on analysing the data gathered from the questionnaire respondents answered. This is captured in descriptive statistics tables providing quantitative insight into the study and as such provides an invaluable contribution to the objectives of this research. In this regard, the analyses presented focused on data from the demographics of respondents, challenges to managing diversity on civil engineering project sites, benefits of managing workforce diversity on civil engineering project sites, the influence of workforce diversity management on civil engineering project success, and the recommendations for enhancing project performance through effective management of diversity.

#### 4.2 Response Rate

As depicted in Table 4.1, 120 questionnaires were distributed to the 60 registered construction firms in Ashanti region. Out of the 120 questionnaire, 102 questionnaires were returned and were useable as follows: 49 questionnaires representing (81.7%) from Site engineers and 53 questionnaires representing (88.3%) from the managing directors. This study yielded an effective response rate of approximately 85.0%. This response rate is considered adequate, as according to Oladapo (2005), Newman and Idrus (2002), Ellhag and Boussabaine (1999) and others, have indicated that a response rate of 30% and above is good enough in social research.

**Table 4. 1: Percentage of Questionnaires Distributed and Responses Received**

	Site engineers	Managing Directors	Total
Number of distributed questionnaires	60	60	120
Number of useable questionnaires	49	53	102
Response rate (%)	81.7	88.3	85.0

*Source: Field Work (2018)*

### 4.3 Demographic Characteristics of Respondents

This section presents the demographics of respondents. It includes age of respondents, academic qualification, and composition of workforce of respondents. The demographics of the respondents were essential to the study since they play significant roles on workforce attitudes and ideas about a particular issue as well as how they respond to issues. According to Ferguson and Mulwafu (2004), the socio-economic background of people influences their attitudes and helpful in determining the implication of workforce diversity on project success.

#### 4.3.1 Age of Respondents

Table 4.2 shows the age distribution of respondents who participated in the study. The purpose was to find out the average age of the employees who are actively involved in the operations within the registered construction firms in Ashanti Region. From the Table, 3.9% of the respondent were between the age category of 30-39 years (approximately 4 respondents), 33.3% of respondents were within age bracket 40-49 years (representing 34 respondents) while 62.7% of the respondents were above 50 years. On the ages of the managing directors, 9.4% were between 40-49 years, 90.6% were above 50 years. Concerning the ages of the Site engineers, 8.2% were between the ages of 30-39 years, 59.2% were between the ages of 40-49, whilst 32.7% of the



respondents were above 50 years. Ferguson and Mulwafu (2004) are of the view that, age cohorts of workers play a significant part in the success of construction projects. Thus, workers of different age cohorts have different strength and perceptions towards activities performed. This suggests that, majority of the respondents were matured enough to answer the questionnaire very well.

**Table 4. 2: Respondents based on age**

Category	Age group of respondents						Total	
	30-39 years		40-49 years		50 years and above		N	%
	N	%	N	%	N	%		
Managing Director	0	0.0	5	9.4	48	90.6	53	100.0
Site engineer	4	8.2	29	59.2	16	32.7	49	100.0
<b>Total</b>	<b>4</b>	<b>3.9</b>	<b>34</b>	<b>33.3</b>	<b>64</b>	<b>62.7</b>	<b>102</b>	<b>100.0</b>

Source: Field Work, 2018

#### 4.3.2 Educational level of Respondents

Table 4.3 revealed that 64 respondents constituting 62.7% have Diploma, 38 of them representing 37.3% have Bachelor degree. On the educational level of the managing directors, 81.1% were holding Diploma, whilst 18.9% were hold bachelor degree. Concerning the Site engineers, 42.9% had Diploma and 57.1% of the respondents had first degree. Respondents with higher levels of education are likely to have more acquisition of knowledge gained on their fields of study compared to those with low level of education. Therefore, highly learned people as in this case of this study are considered to have control and better understanding on their fields of study and hence the result could be considered accurate and consistent.

**Table 4. 3: Respondents based on educational level**

Category	Educational level of respondents				Total	
	Diploma		First degree		N	%
	N	%	N	%		
Managing Director	43	81.1	10	18.9	53	100.0
Site engineer	21	42.9	28	57.1	49	100.0
<b>Total</b>	<b>64</b>	<b>62.7</b>	<b>38</b>	<b>37.3</b>	<b>102</b>	<b>100.0</b>

Source: Field Work 2018

#### 4.4 Descriptive Statistics about Challenges to the management of diversity

In order to examine Site engineers' and managing directors' views on the challenges to managing diversity on civil engineering project sites, the study sought to undertake a simple descriptive statistic showing all challenges to managing diversity. The results obtained are ranked in descending order as shown in Table 4.4. The challenges were measured by mean and standard deviations and the significant mean level was pegged at 3.0. Anything above the 3.0 threshold is considered as a strong factor and those factors below the cut-off point is rejected and considered as a weak challenge.

It can be observed from the study results in Table 4.4 that there are no experienced experts for managing diversity at construction sites. This statement was rated 1<sup>st</sup> with a mean score of 3.75 and a standard deviation of .999. This implies that most of the Site engineers and managing directors of the construction firms in Ashanti Region do not get involved and are not knowledgeable in managing workforce diversity. On average, the respondents accepted that cost is a challenge in managing workforce diversity in the construction sites. This is supported by a mean of 3.34 and a standard deviation of 1.278. With a mean score of 3.30 and a standard deviation of 1.280, the respondents accepted that diversity management is not seen as an organizational

priority, and it possess a challenge to the management of workforce diversity in construction sites.

The Site engineers and managing director affirmed that there are no well-developed policies for handling workforce diversity in construction sites had a mean score of 3.18 and a standard deviation of 1.230. This indicates that the construction industries find it difficult in managing workforce diversity because there are no policies that guide diversity management. The respondents further mentioned that the workforce resistance to change posed a challenge in the management of workforce diversity in construction sites. This statement was rated 5<sup>th</sup> with a mean score of 3.13 and a standard deviation of 1.376.

The respondents rejected to difficulty in communicating freely with other employees due to the language differences ( $x=2.49$ ,  $SD=1.032$ ), it is difficult to issue instructions to complete work task due to language barrier ( $x=2.15$ ,  $SD=.894$ ), employees make mistakes due to the misunderstanding of instructions ( $x=1.85$ ,  $SD=1.028$ ), procurement method employed does not encourage employee to work as a team ( $x=1.75$ ,  $SD=.571$ ), and bilingual employees needed to reduce language and communication challenges ( $x=1.49$ ,  $SD=.754$ ) as a challenges to effective challenge to managing diversity. These statements were ranked 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> respectively.

**Table 4. 4: Responses on challenges to managing diversity**

S/No.	Challenges	Mean	Std. Dev.	Rank	Decision
1.	There are no experienced experts for managing diversity	3.75	.999	1 <sup>st</sup>	Accepted
2.	Cost of Diversity Management	3.34	1.278	2 <sup>nd</sup>	Accepted
3.	Diversity management is not seen as an organizational priority	3.30	1.280	3 <sup>rd</sup>	Accepted
4.	There is no well-developed policies for handling diversity challenges	3.18	1.230	4 <sup>th</sup>	Accepted
5.	Resistance to change	3.13	1.376	5 <sup>th</sup>	Accepted
6.	There is difficulty in communicating freely with other employees due to the language differences	2.49	1.032	6 <sup>th</sup>	Rejected
7.	It is difficult to issue instructions to complete work task due to language barrier	2.15	.894	7 <sup>th</sup>	Rejected
8.	Employees make mistakes due to the misunderstanding of instructions	1.85	1.028	8 <sup>th</sup>	Rejected
9.	The procurement method employed does not encourage employee to work as a team	1.75	.571	9 <sup>th</sup>	Rejected
10.	Bilingual employees are needed to reduce language and communication challenges which increase the project cost	1.49	.754	10 <sup>th</sup>	Rejected

Source: *Field Work, 2018*

$\bar{x} \geq 3.0 = \text{Accepted}$

#### 4.5 Benefits of managing workforce diversity on civil engineering project sites

Descriptive statistics were used to measure the benefits of managing workforce diversity on civil engineering project sites. The perceived benefits of managing workforce diversity were measured by seven items and the results obtained were ranked in descending order as shown in Table 4.5. The benefits were measured with mean and standard deviations and the significant mean level was fixed at 3.0. Anything above 3.0 threshold is considered as a strong factor and those factors below the cut-off point is rejected and considered as a weak benefit.

The findings from the study reveal that most of the respondents accepted that workforce diversity management gives the employees more skills, knowledge, competencies and interest in working. This is supported by a mean of 3.91 and a standard deviation of 1.267 as 1<sup>st</sup> in the ranking order. The respondents accepted that diversity management creates an inclusive harmonious working environment. This statement indicates a mean score of 3.84 and a standard deviation of 1.288 as the 2<sup>nd</sup> in likert ranking order. With a mean score of 3.79 and a standard deviation of 1.213, the respondents accepted that diversity management gives all employees the opportunity to maximize their potential and contribution in the construction site. This statement was rated 3<sup>rd</sup> in the ranking order.

The issue that diversity management improves employee's commitment and engagement was ranked a mean score of 3.69 and standard deviation of 1.202. From the study, the respondents accepted that diversity management improves collaboration and cohesiveness among employees. This statement was ranked 5<sup>th</sup> benefits of diversity management with a mean score of 3.62 and a standard deviation of 1.19. Moreover, the statement that diversity management leads to employees' satisfaction and organizational performance was rated by the Site engineers and managing directors as a 6<sup>th</sup> benefits. This statement had a mean score of 3.58 and a standard deviation of 1.112. This confirms that managing a diverse workforce comes with numerous benefits and management must be aware in the decision-making processes in the organization.

**Table 4. 5: Responses on the benefits of managing workforce diversity**

S/No.	Benefits	Mean	Std. Dev.	Rank	Decision
1.	Gives the employees more skills, knowledge, competencies and interest	3.91	1.267	1 <sup>st</sup>	Accepted
2.	Creates an inclusive harmonious working environment	3.84	1.288	2 <sup>nd</sup>	Accepted
3.	Gives all employees the opportunity to maximize their potentials and contributions	3.79	1.213	3 <sup>rd</sup>	Accepted
4.	Improves employees commitment and engagement which reduces labour turnover	3.69	1.202	4 <sup>th</sup>	Accepted
5.	Improves collaboration and cohesiveness among employees	3.62	1.194	5 <sup>th</sup>	Accepted
6.	Leads to employees satisfaction and organisational performance	3.58	1.112	6 <sup>th</sup>	Accepted
7.	Helps to value, reward and motivate employees	2.51	1.208	7 <sup>th</sup>	Rejected

Source: *Field Work, 2018*

$\bar{x} \geq 3.0 = Accepted$

#### 4.6 Influence of workforce diversity management on project success

In determining the influence of workforce diversity management on project success, descriptive statistics were used to measure the variables of workforce diversity management and project success. In order to evaluate the correlations and ANOVA between workforce diversity management and project success at construction sites, factor analysis was performed on the variables.

##### 4.6.1 Workforce diversity management

Descriptive statistics were used to measure the items of workforce diversity management. The results obtained were ranked in descending order as shown in Table 4.6. The items were measured with mean and standard deviations and the significant mean level was pegged at 3.0. Anything above 3.0 bench marks is considered as strong factors and those below 3.0 cut-off point is rejected and considered as weak.

The study indicated that the construction firm ensures proper communication among all the employees. This statement was rated 1<sup>st</sup> with a mean score of 4.07 and a standard deviation of .957. According to the respondents, the construction firm encourages the employees to work with employees with different ethnicity. This is supported by a mean of 4.06 and a standard deviation of .910 as it was rated 2<sup>nd</sup> in the ranking order. The construction firm prohibits alcoholism and drug abuse at the workplace was rated 3<sup>rd</sup> with a mean of 3.87 and a standard deviation of 1.191. Again, the respondents affirmed that the construction firm encourages employees to work with employees with different educational background. This statement was rated 4<sup>th</sup> with a mean of 3.82 and a standard deviation of 1.066. The construction firms encouraging employees to work with employees of different professional qualification had a mean of 3.76 and a standard deviation of 1.073 implying that most of the construction firms avoid discrimination at workplace in terms of age, educational background and gender.

In addition, it appeared that workers health conditions are ensured. This is supported by a mean of 3.70 and a standard deviation of 1.311. On the other hand, the respondents accepted that the construction firms encourage employees to work with employees of different gender. This statement was ranked 7<sup>th</sup> with a mean score of 3.59 and a standard deviation of 1.417. With a mean score of 3.46 and standard deviation of 1.33, the respondents agreed that the construction firms encourage employees to work with employees with different age. According to the respondents labour loyalty and satisfaction are paramount to the construction firms. This was supported by a mean of 3.43 and a standard deviation of 1.278 as it was rated 9<sup>th</sup> in the ranking order.

The respondents rejected to labour personal issues and economic condition are taken into consideration ( $x=2.98$ ,  $SD= 1.462$ ), and income of labourers are sufficient ( $x=2.49$ ,  $SD=1.288$ ). These statements were ranked 10<sup>th</sup> and 11<sup>th</sup> in the ranking order.

**Table 4. 6: Responses on diversity management**

S/No.	Diversity management	Mean	Std. Dev.	Rank	Decision
1.	The organisation ensures proper communication among all the employees	4.07	.957	1 <sup>st</sup>	Accepted
2.	The organisation encourages employees to work with employees with different ethnicity	4.06	.910	2 <sup>nd</sup>	Accepted
3.	The organization prohibits alcoholism and drug abuse at the workplace	3.87	1.191	3 <sup>rd</sup>	Accepted
4.	The organisation encourages employees to work with employees with different educational background	3.82	1.066	4 <sup>th</sup>	Accepted
5.	The organisation encourages employees to work with employees of different professional qualification	3.76	1.073	5 <sup>th</sup>	Accepted
6.	Workers health condition are ensured	3.70	1.311	6 <sup>th</sup>	Accepted
7.	The organisation encourages employees to work with employees with different gender	3.59	1.417	7 <sup>th</sup>	Accepted
8.	The organisation encourages employees to work with employees with different age	3.46	1.333	8 <sup>th</sup>	Accepted
9.	Labour loyalty and satisfaction are paramount to the organization	3.43	1.278	9 <sup>th</sup>	Accepted
10.	Labour personal issues and economic condition are taken into consideration	2.98	1.462	10 <sup>th</sup>	Rejected
11.	Income of labourers are sufficient	2.49	1.288	11 <sup>th</sup>	Rejected

Source: *Field Work, 2018*

$x\text{-bar} \geq 3.0 = \text{Accepted}$



#### 4.6.1.1 Factor Analysis to diversity management in constructions sites

Further, factor analysis was used to establish the underlying interrelations existing among the many variables identified in Table 4.7. This makes it possible to reduce the variables to a more meaningful framework to support effective management and policy decisions. The rotated component matrix is presented in Table 4.8. In the preliminary analysis, the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy achieved a high of 0.541 (Appendix A). This test measures the homogeneity of variables (Sharma as cited in Eydurán, et al. 2009). The Bartlett test of sphericity shows overall significance of the correlation matrix at the 0.000 level. The communalities achieved were also 1.00. These measures indicate that, 9 variables are appropriate for the factor analysis. Principal components extraction with varimax rotation was employed. The Kaiser criterion (eigenvalue >1) was employed in conjunction with evaluation of screen plots. The screen test indicates that only four factors should be considered. In Table 4.7, the rotated component matrix indicates that, 9 out of the original 11 variables could be the underlying themes of four main factors (using a cut-off point of 0.50). Besides, the eleven items obtained a KMO value of 0.588 thereby satisfying the reliability scale.

With respect to factor 1, the organisation encourages employees to work with employees with different educational background (0.926), workers health condition is ensured (0.913), and the organization prohibits alcoholism and drug abuse at the workplace (0.563). Issues in factor 2 could also be linked to the organisation ensures proper communication among the entire employee (0.947), and the organization prohibits alcoholism and drug abuse at the workplace (0.925). Factor 3 indicates that the organisation encourages employees to work with employees with different age

(0.686), the organisation encourages employees to work with employees with different gender (0.506), and the organisation encourages employees to work with employees of different professional qualification (0.765). Issues in factor 4 are associated with the fact that organisation encourages employees to work with employees with different ethnicity (0.907), and labour personal issues and economic condition are taken into consideration (0.607).

The initial eigenvalues (Table 4.8) indicates that, if all the factors are ranked, factor 1 account for 26.263% of the variance, factor 2 accounts for 18.799% of the variance, factor 3 accounts for 14.708% of the variance, factor 4 accounts for 12.507% of the variance. Together, the four identified factors accounted for 72.277% of the variance.

**Component 1: Encourages team work at workplace**

Organisation encourages employees to work with employees with different educational background, and workers health condition are ensured, and organization prohibits alcoholism and drug abuse at the workplace

**Component 2: Ensuring good communication at workplace**

Organisation ensures proper communication among the entire employees, and the organization prohibits alcoholism and drug abuse at the workplace.

**Component 3: Avoiding discrimination**

Organisastion encourages employees to work with employees with different age, organisation encourages employees to work with employees with different gender, and the organisation encourages employees to work with employees of different professional qualification.

**Component 4: Taking workers personal issues and economic condition into consideration**

Organisation encourages employees to work with employees with different ethnicity and labour personal issues and economic condition are taken into consideration.

**Table 4. 7: Rotated Component Matrix for the diversity management**

	Component			
	1	2	3	4
The organisation encourages employees to work with employees with different age	-.270	.116	.686	-.048
The organisation encourages employees to work with employees with different gender	.155	.274	.506	-.058
The organisation encourages employees to work with employees with different ethnicity	.075	-.036	.144	.907
The organisation encourages employees to work with employees with different educational background	.926	.080	-.022	.054
The organisation encourages employees to work with employees of different professional qualification	.179	-.070	.765	.114
The organisation ensures proper communication among all the employees	.042	.947	.009	.074
Labour personal issues and economic condition are taken into consideration	-.288	.203	-.474	.607
Workers health condition are ensured	.913	.200	.094	-.099
The organization prohibits alcoholism and drug abuse at the workplace	.563	.925	.031	.005

*Extraction Method: Principal Component Analysis.*

*Rotation Method: Varimax with Kaiser Normalization.*

*a. Rotation converged in 5 iterations.*

**Table 4. 8: Total Variance Explained for the diversity management**

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
		% of	Cumulative		% of	Cumulative
	Total	Variance	%	Total	Variance	%
1	2.364	26.263	26.263	1.937	21.527	21.527
2	1.692	18.799	45.061	1.935	21.501	43.028
3	1.324	14.708	59.770	1.405	15.614	58.642
4	1.126	12.507	72.277	1.227	13.635	72.277
5	.976	10.847	83.124			
6	.680	7.551	90.676			
7	.550	6.110	96.786			
8	.178	1.973	98.759			
9	.112	1.241	100.000			

Extraction Method: Principal Component Analysis.

Source: *Field Work, 2018*

#### 4.6.2 Overall project success measurement

In examining the overall project, the study sought to undertake descriptive statistics showing the success of civil engineering projects. The results obtained are ranked in descending order as shown in Table 4.9. The project success indicators were measured by mean and standard deviations and the significant mean level was pegged at 3.0 and any item above the 3.0 threshold is considered as a strong factor and those factors below the cut-off point is rejected and considered as a weak factor.

The respondents accepted that projects are completed within the stipulated time. This is supported by a mean of 4.16 and a standard deviation of 1.150 as it was rated 1<sup>st</sup> in the ranking order. Again, the respondents accepted that sharing new ideas, different knowledge, new skills and approaches to projects are achieved by team members. This statement was ranked 2<sup>nd</sup> with a mean score of 3.97 and a standard deviation of .980. The issue that projects are completed successfully as a result of effective

diversity management, a mean of 3.88 and a standard deviation of 0.968 was attained reflecting the third (3<sup>rd</sup>) in ranking.

The Table 4.10 further shows that, employees become satisfied at the end of the project. Majority of the respondents totally accepted to this fact. This fact had a mean score of 3.33 and a standard deviation of 0.938 rating 4<sup>th</sup> ranking order. Moreover, the respondents accepted that transfer of knowledge is always achieved between the project team members upon project completion. The statement had a mean score of 3.83 and a standard deviation of 1.063 as 5<sup>th</sup> in Likert ranking order. On the issue that projects are completed to specified quality, majority of the respondents accepted to that statement. This statement had a mean score of 3.75 and a standard deviation of 1.158 reflecting the 6<sup>th</sup> in ranking. However, with a mean score of 3.58 and a standard deviation of 1.246, the respondents accepted that clients are satisfied with the completed project. This statement rated the 7<sup>th</sup> in the likert ranking. With the aspect the fact that the projects are always completed safely without any incidents or accidents due to effective diversity management, majority of the respondents accepted to that fact. This fact had a mean score of 3.12 and a standard deviation of 1.253 reflecting 8<sup>th</sup> in the ranking order.

**Table 4. 9: Responses on overall success of civil engineering projects**

S/No.	Project success	Mean	Std. Dev.	Rank	Decision
1.	Projects are completed with the stipulated time	4.16	1.150	1 <sup>st</sup>	Accepted
2.	Sharing of new ideas, different knowledge, new skills and approaches to projects are achieved by project team members	3.97	.980	2 <sup>nd</sup>	Accepted
3.	Projects are completed successfully	3.88	.968	3 <sup>rd</sup>	Accepted
4.	Employees become satisfied at the end of the project	3.85	.938	4 <sup>th</sup>	Accepted
5.	Transfer of knowledge is always achieved between the project team members upon project completion	3.83	1.063	5 <sup>th</sup>	Accepted
6.	Projects are completed to specified quality	3.75	1.158	6 <sup>th</sup>	Accepted
7.	Clients are satisfied with the completed projects	3.58	1.246	7 <sup>th</sup>	Accepted
8.	Projects are always completed safely without any incidents or accidents	3.12	1.253	8 <sup>th</sup>	Accepted
9.	Projects are completed within the stipulated budget	2.50	.865	9 <sup>th</sup>	Rejected

Source: *Field Work, 2018*

$\bar{x} \geq 3.0 = \text{Accepted}$

#### 4.6.2.1 Factor Analysis of success of civil engineering projects

Factor analysis was used to establish the underlying interrelations existing among project success variables. This makes it possible to reduce the variables to a more meaningful framework to support effective management and policy decisions. The rotated component matrix is presented in Table 4.10. In the preliminary analysis; the Kaiser-Meyer-Olkin (KMO) test of sampling adequacy achieved a high of 0.510. The KMO test measures the homogeneity of variables (Sharma as cited in Eyduran, et al. 2009). The Bartlett test of sphericity shows overall significance of the correlation matrix at the 0.000 level. The communalities achieved were also 0.560 or higher. These measures indicate that, the 8 variables are appropriate for the factor analysis.

Principal components extraction with varimax rotation was employed. The Kaiser criterion (eigenvalue >1) was employed in conjunction with evaluation of scree plots. The screen test indicates that only ten factors should be considered. In Table 4.10, the rotated component matrix indicates that, 8 out of the original 9 variables could be the underlying themes of 3 main factors (using a cut-off point of 0.50). Besides, the 9 items obtained a Kaiser-Meyer-Olkin (KMO) value of 0.558 thereby satisfying the reliability scale.

The variables; Projects are completed with the stipulated time (0.544), projects are always completed safely without any incidents or accidents (0.511), transfer of knowledge is always achieved between the project team members upon project completion (0.747), and projects are completed successfully (0.805) belong to factor 1. For factor 2, clients are satisfied with the completed projects (0.700), and sharing of new ideas, different knowledge, new skills and approaches to projects are achieved by project team members (0.657). For factor 3, projects are completed to specified quality (0.846), and projects are always completed safely without any incidents or accidents (0.577).

The initial eigenvalues (Table 4.11) indicates that, if all the factors are ranked, factor 1 accounts for 21.116% of the variance, factor 2 accounts for 18.468% of the variance, and factor 3 accounts for 15.029. Together, the 3 identified factors account for 54.613% of the variance. In this effect, the project success factors are summarised in following below:

**Component 1: Successful completion of projects on time**

Projects are completed with the stipulated time, projects are always completed safely without any incidents or accidents, transfer of knowledge is always achieved between the project team members upon project completion, and projects are completed successfully.

**Component 2: Clients satisfied with project completed**

Clients are satisfied with the completed projects, and sharing of new ideas, different knowledge, new skills and approaches to projects are achieved by project team members.

**Component 3: Completion of projects to specified quality**

Projects are completed to specified quality, and projects are always completed safely without any incidents or accidents.

**Table 4. 10: Rotated Component Matrix about project success**

	Component		
	1	2	3
Projects are completed to specified quality	-.035	.006	.846
Projects are completed with the stipulated time	.544	-.407	-.244
Clients are satisfied with the completed projects	.215	.700	-.231
Employees become satisfied at the end of the project	-.407	-.236	.391
Projects are always completed safely without any incidents or accidents	.511	.201	.577
Transfer of knowledge is always achieved between the project team members upon project completion	.747	-.188	-.012
Sharing of new ideas, different knowledge, new skills and approaches to projects are achieved by project team members	-.125	.657	.001
Projects are completed successfully	.805	.038	.029

*Extraction Method: Principal Component Analysis*

*Rotation Method: Varimax with Kaiser Normalization*

*a. Rotation converged in 5 iterations*

**Source:** Field Work, 2018



**Table 4. 11: Total Variance Explained for project success**

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.689	21.116	21.116	1.605	20.059	20.059
2	1.477	18.468	39.584	1.555	19.435	39.493
3	1.202	15.029	54.613	1.210	15.119	54.613
4	.986	12.324	66.936			
5	.837	10.469	77.405			
6	.761	9.514	86.919			
7	.535	6.694	93.613			
8	.511	6.387	100.000			

Extraction Method: Principal Component Analysis.

*Source: Field Work, 2018*

### 4.6.3 Analysis of Relationship between Variables

In order to determine if there is an influence of workforce diversity management on projects success, Kendall's tau-b correlation and ANOVA were deployed for the analyses based on two (2) hypotheses.

#### 4.5.3.1 Correlation between diversity management and project success

The study investigated the correlation between diversity management and project success. The investigation involves test of the two hypotheses using Kendall's tau-b correlation test at  $P \leq 0.05$ . The results are presented in Table 4.12. In all, the test had four (4) diversity management variables against three (3) Site engineers' roles in Ghanaian construction industry.

**Table 4. 12: Correlation matrix**

Construct	1	2	3	4	5	6	7
1 Encourages team work at workplace	1.000	-.193*	-.209*	-.015	.860**	.255**	.196*
2 Ensuring good communication at workplace		1.000	.388**	-.243**	-.193	.542**	.350**
3 Avoiding discrimination			1.000	-.117	-.211	.157	.927**
4 Taking workers personal issues and economic condition into consideration				1.000	.089	-.025	-.054
5 Successful completion of projects on time					1.000	-.215*	-.199*
6 Clients satisfied with project completed						1.000	.105
7 Completion of projects to specified quality							1.000

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: Field Work, Using SPSS-23, 2018

The results of Kendall's tau-b correlation test found a positive significant correlation between encourages team work at workplace and successful completion of project on time ( $r = .860$ ,  $p < 0.01$ ), clients satisfied with project completed ( $r = .255$ ,  $p < 0.01$ ), completion of project to specified quality ( $r = .196$ ,  $p < 0.05$ ). The results of Kendall's tau-b correlation further showed a positive association between good communication and clients satisfied with project completed ( $r = .542$ ,  $p < 0.01$ ), completion of project to specified quality ( $r = .350$ ,  $p < 0.01$ ). Moreover, a significant association was found between avoiding discrimination and completion of project to specified quality ( $r = .927$ ,  $p < 0.01$ ).

#### 4.5.3.2 ANOVA Test

In testing the hypothesis ANOVA test was conducted to find out the influence of workforce diversity management on project success (Table 4.13). The results are summarized and the original Table from SPSS-23.0

**Table 4. 13: ANOVA Test**

Model		Sum of Squares	df	Mean Square	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	F	Sig.
1	Regression	119.681	4	29.920	.925 <sup>a</sup>	.856	.456	143.947	.000 <sup>b</sup>
	Residual	20.162	97	.208					
	Total	139.843	101						

*a. Dependent Variable: project success*

*b. Predictors: (Constant), Taking workers personal issues and economic condition into consideration , Encourages team work at workplace, Ensuring good communication at workplace, Avoiding discrimination*

From Table 4.13, the study found a positive and significant ( $p=0.000<0.01$ ) influence of diversity management on the success of civil engineering projects. Also the adjusted  $R^2$  of the model was 0.456. The adjusted  $R^2$  is the coefficient of determination which tells the variation in the dependent variable due to changes in the independent variable. From the findings as shows in Table 4.13 the value of  $R^2$  was 0.856, which is an indication that there was variation of 85.6% on the success of civil engineering projects in the Ashanti Region due to changes in taking workers personal issues and economic condition into consideration, encouraging team work at workplace, ensuring good communication at workplace, and avoiding discrimination. R is the correlation coefficient which shows the relationship between the study variables. From the findings in Table 4.13 there was a strong positive relationship between the study variables as who by  $R=0.925$ .

This indicates that the workforce diversity management have influence on project success. The workforce diversity management is significant in ensuring civil engineering project success in the Ashanti Region. The overall significance of the model displayed in Table 4.12 ( $F=143.947$ ,  $P<0.01$ ). This implies that effective management of workforce diversity and project success at the various construction industries in Ashanti Region is significant at  $.000<0.01$  level (2 tailed).

## Hypothesis

- H<sub>0</sub>: There is no significant relationship between workforce diversity management and civil engineering project success.
- H<sub>1</sub>: There is a significant relationship between between workforce diversity management and civil engineering project success.

The study reveals that, workforce diversity management had a positive influence on project success ( $F=143.947$ ,  $p=.000<0.01$ ) having their P- value below the bench mark of (0.01), hence the null hypothesis is rejected and the alternate hypotheses is accepted.

### 4.7 Enhancing project performance through effective diversity management

In developing the appropriate recommendations for enhancing project performance through effective management of diversity, respondents were made to indicate their level of agreement on the statement. The statements were measured with mean and standard deviations and the significant mean level was fixed at 3.0. Anything above 3.0 threshold is considered as a strong statement and those statements below the cut-off point is rejected and considered as a weak recommendation. Table 4.14 presents the results.

As depicted in Table 4.14, the respondents accepted that open communication and team work is a way of managing workforce diversity. This statement had a mean score of 4.04 and a standard deviation of 0.911 representing 1<sup>st</sup> in ranking order. With regard to valuing diversity, majority of the respondents agreed to that statement. This statement had a mean score of 4.00 and a standard deviation of 0.867 reflecting 2<sup>nd</sup> in ranking. Again, the respondents accepted that diversity recruitment strategy is a way of managing workforce diversity. This statement reflected 3.97 mean score and a

standard deviation of 0.949 as the 3<sup>rd</sup> in ranking order. Moreover, on whether Commitment of organisation to diversity policies is a way of managing workforce diversity, majority of the respondents accepted to that statement. The statement depicted a mean score of 3.60 and a standard deviation of 0.998 as the 4<sup>th</sup> in ranking order. In terms of whether government giving tax relief to organisation committed to workforce diversity management is a way of managing workforce diversity, majority of the respondents accepted to that fact. This fact had a mean score of 3.54 and a standard deviation of 1.302 as 5<sup>th</sup> in ranking. Furthermore, the respondents accepted that training employees is way of managing workforce diversity. This statement was rated 6<sup>th</sup> with a mean score of 3.02 and a standard deviation of 1.342.

From the analysis of the results, it is clear that the most important suggestion identified by the respondents for managing workforce diversity at workplace were: ensuring open communication and team work, valuing diversity, diversity recruitment strategy, commitment of organisation to diversity policies, government giving tax relief to organisation committed to workforce diversity management policies, and training of employees.

**Table 4. 14: Responses on enhancing project performance**

S/No.	Recommendations	Mean	Std. Dev.	Rank	Decision
1.	Open communication and team work	4.04	.911	1 <sup>st</sup>	Accepted
2.	Valuing diversity	4.00	.867	2 <sup>nd</sup>	Accepted
3.	Diversity recruitment strategy	3.97	.949	3 <sup>rd</sup>	Accepted
4.	Commitment of organisation to diversity policies	3.60	.998	4 <sup>th</sup>	Accepted
5.	Government giving tax relief to organisation committed to workforce diversity management policies	3.54	1.302	5 <sup>th</sup>	Accepted
6.	Training of employees	3.02	1.342	6 <sup>th</sup>	Accepted
7.	Giving awards to managers committed to diversity management strategies and policies	2.84	.952	7 <sup>th</sup>	Rejected

Source: Field Work, 2018

$\bar{x} \geq 3.0 = \text{Accepted}$

#### **4.8 Summary**

In this chapter, the results obtained from the study were presented in tables. These were presented in the following sections: demographic information, responses from the survey based on challenges to the management of diversity, benefits of effectively managing workforce diversity on civil engineering project sites, influence of workforce diversity management on project success and recommendation for enhancing civil engineering project performance through effective management of diversity. The next chapter presents discussion of results of the study.

## CHAPTER FIVE

### DISCUSSION OF RESULTS OF THE STUDY

#### 5.1 Introduction

This chapter presents detailed discussions of emerging themes from the results of the research presented in the previous chapter. The results and findings from the analysed data are discussed and presented in four sections: the key challenges to managing diversity on civil engineering project sites in Ghana, benefits of effectively managing workforce diversity on civil engineering project sites, assessing the influence of workforce diversity management on civil engineering project success, and the appropriate recommendations for enhancing project performance through effective management of diversity.

#### 5.2 Challenges to managing diversity on civil engineering project sites

In examining the Site engineers and managing directors views on key challenges to managing diversity on civil engineering project sites in Ghana, questionnaire was designed to ask a number of questions from respondents. On this objective, the study revealed that, lack of experienced experts for managing diversity, cost of diversity management, absence of priority by construction firms in managing diversity, lack of well-developed policies for handling diversity challenges, and resistance to change are the key challenges to managing diversity on civil engineering project sites in Ghana. This indicates that workforce diversity is a complex phenomenon to manage in an organization. According to Kreitner (2001), managing a diverse workforce comes with potential challenges that mentors and leaders must overcome. Kreitner revealed some common barriers to implementing diversity management:

- The difficulty in balancing career and Family: Women are most likely to be presented with this challenge. In modern culture, women are still expected to take care of young children and to manage the household. Although attitudes are shifting, women still bear the greatest household responsibilities.
- An unsupportive and hostile working environment for diverse employees: Diverse employees are excluded from social activities and are thus prevented from forming networks among other employees.
- Fears of discrimination: People fear of being discriminated upon and therefore are reluctant to apply for jobs where there are different nationalities than theirs.
- Diversity is not seen as an organizational priority: Employees may not view diversity efforts as work contributing to the success of the organization.
- Resistance to change: People resist change for reasons such as fear of failure, mistrust and peer pressure (Kreitner, 2001).

The view by the respondents that high cost of managing diverse workforce is a challenge concurs with the study by (Jain & Verma, 1996). As per Jain and Verma to increase job satisfaction, workplace diversity management could sometimes be very costly, when an organisation strives to effectively manage the diverse workforce, it undergoes mandatory diversity training during which supervisors, employees, and managers receive lessons on the best way to interact with employees and clients. In recent times, there are lots of diversity management program available where companies could choose from, taking into account the size of the company and it is employees. Some training programs require a high travelling and participation cost.



The responses of the respondents that lack well-developed policies for handling diversity possess a challenge align with the study by Wambui, et al. (2013). According to Wambui many construction firms do not have policies in guiding the management of diverse workforce. Once workplace diversity is implemented, companies must be guided by policies and effectively manage the changes in policies. This presents a challenge for many construction firms. Challenges in managing workplace diversity can stem from several reasons, such as taking the wrong approach to solving diversity issues. For example, without any guided policies, a company may adopt affirmative action policies in an attempt to solve diversity problems. Affirmative action is about giving opportunity to previously disadvantaged workers. Hiring based solely on race may not solve diversity issues. Managers face challenges when new employees from diverse backgrounds interact with long-standing employees.

Managing diversity is a broad and complex issue. Leaders face formidable challenges in building a multicultural organization that truly values diversity. To be successful, managers need to "unlearn practices rooted in an old mind set, change the ways organizations operate, shift organizational culture, revamp policies, create new structures, and redesign human resource systems (Jamieson & O'Mara, as cited in White, 1999). Despite the efforts channeled into workforce diversity management, organizations rarely achieve their expected benefits due to lack of experienced experts for managing diversity.

It is up to leadership to overcome these challenges by properly informing and managing changes and the perceptions when they feel threatened. The management of

workforce diversity as a tool to increase organizational effectiveness cannot be underscored, especially with current changes sweeping across the globe. It is argued that organizations that value diversity will definitely cultivate success and have a future in this dynamic global labour market (Jain & Verma, 1996). Workforce diversity management has become an important issue for both governments and private organizations. Its importance has mainly been brought about by the free movement of labour due to globalization and the fight for human rights by certain minority groups who feel excluded from the employment sector (Weaver, 2001).

### **5.3 Benefits of effectively managing workforce diversity on project sites**

In order to identify benefits of effectively managing workforce diversity on civil engineering project sites, questionnaire was designed to ask a number of questions from respondents. On this objective, the study revealed that, effectively managing workforce diversity gives the employees more skills, knowledge, competencies and interest, creates an inclusive and harmonious working environment, gives all employees the opportunity to maximize their potentials and contributions, improves employees commitment and engagement which reduces turnover, improves collaboration and cohesiveness among employees, and leads to employees satisfaction and organisational performance. This clarifies that workforce diversity management helps construction firms to achieve their expected benefits. According to the study by Wambui et al. (2013) effective management of workforce diversity at the workplace creates an inclusive and harmonious environment which enhances good reputation of the organization with people seeking jobs hence able to attract the best workers in the market. The employees feel valued, rewarded and motivated while working in an organization that manages diversity.

The responses of the respondents that effective diversity management creates an inclusive harmonious working environment leads to employees satisfaction and organisational performance concurs with the research done by Jenner (1994) that diversity management brings about satisfaction and organizational performance. It was also found out that creating an inclusive and harmonious environment was a key driver in employee engagement and commitment. Managing diversity creates greater employee engagement which at the end leads to reduced labour turnover (Jenner, 1994).

It is not surprising that the respondents agreed to employee's satisfaction and organisational performance. Jenner (1994), and Koonce (2001) noted that ensuring employee's satisfaction and increasing productivity at the workplace has been one of the major challenges for managers and leaders and to the company in general. Due to the fact that every organisation has its own unique company structure and objectives, different strategies may be used to challenge or address the company in order to achieve project success. One of those strategies involves adopting workplace diversity and managing it effectively. When management takes the welfare of its workers at heart by means of offering them proper compensation, health care and employee appraisal, it enables workers to feel they belong to the company irrespective of their cultural background by remaining loyal and hardworking which helps to increase the company's productivity and profit.

The respondents agreeing to collaboration and cohesiveness among employees as a benefit of diversity management confirms with the study by Kivrak et al. (2009). Kivrak et al. revealed that in recent times teamwork is increasingly advocated by

businesses and organisations as a means of assuring better outcomes on tasks and also for the delivery of goods and services. A single person taking on multiple tasks cannot perform at the same pace as a team could; therefore, each team member brings to the table different ideas and offers a unique perspective during problem solving to effectively arrive at the best solution at the shortest possible time. According to Babu and Sudhakar (2015), employees and their co-workers that come from a diverse background bring to the table some amount of unique perceptions and experience during teamwork or group tasks. Pooling the diverse skills and knowledge of culturally distinct employees together can immensely benefit the company by strengthening the responsiveness and success of projects to adapt to the changing conditions. Every diverse culture has its own strengths and weaknesses, therefore in addition to their individuality; every diverse employees possesses a unique strengths and weaknesses that are derived from their culture. When each workers' unique trait is managed properly and effectively in the organization, it can leverage the strengths and complement its weaknesses to highly impact the workforce.

The view of the respondents that effectively managing workforce diversity gives the employees more skills, knowledge, competencies and interest concurs with the study by Boukanos (2007). The view by Blommaert and Verschueren (1998), and Boukanos (2007) indicated that diversity at the workplace creates an opportunity for employees' personal growth. When workers are being exposed to new cultures, ideas, skills, knowledge, and perspectives, it can help each person to intellectually reach out and have a clearer insight of their place in the global environment and hence their own surroundings. The more time spent with culturally diverse co-workers can slowly

break down the subconscious barriers of xenophobia and ethnocentrism, thereby encouraging workers to be more experienced members of the society.

According to Devoe (1999), workplace diversity management can immensely strengthen a company's relationship with some specific group of customers by making communication more effective. Customer service department is one of the areas where effective communication is crucial. A customer service personnel or representatives can be paired up with customers from their specific area or location, making the customer feel at home with the representative and thus with the company. For example some companies in the south-western part of the United States often prefer to hire customer service personnels who are bi-lingual to deal with customers who speak Spanish in their native language.

The repercussions for not managing diversity would lead to lack of skills, competencies, and interests in employees, which will ultimately increase employee turnover and reduce individuals' and organizational performance to a great extent. Organizations that manage diversity are recipients of more commitment, and better satisfied as well as better performing employees. Diversity management intends to create and maintain a positive work environment where the similarities and differences of individuals are valued, so that all can reach their potential and maximize their contributions to an organization's strategic goals and objectives. Diversity management ensures that all employees have the opportunity to maximize their potential and enhance their self-development and their contribution to the organization (Patrick & Kumar, 2012).

#### **5.4 Influence of workforce diversity management on project success**

In order to assess the influence of workforce diversity management on civil engineering project success, Kendall's tau-b correlation and ANOVA test was conducted. The study reveals that, workforce diversity management had a positive and significant influence on project success ( $F=143.947$ ,  $p=.000<0.01$ ) having their P-value below the bench mark of (0.01), hence the null hypothesis is rejected and the alternate hypotheses is accepted. Weiliang et al. (2011) asserted that the success of any organizations depends on the ability to manage a diverse body of talents that can bring innovative ideas, perspectives and views to their work. The challenges and problems of workplace diversity can be turned into a strategic organizational asset if an organization is able to capitalize on this Melting pot of diverse talents.

A positive and significant relationship between diversity management and project success attained aligns with the study of Kivrak et al. (2009) who found out a positive and significant relationship between project success and diversity management. It was established that, successfully managing diversity in workforce was seen as one of the key elements in project success. On the other hand, ignoring and mismanaging diversity was considered as one of the important causes for project failure (Kivrak, et al., 2009). The study by Furber et al. (2012) also found a positive and significant effect of diversity management on project success. It is suggested that diversity management in construction projects bring new approaches and new ideas for solving the problems encountered in project implementation.

As indicated by Dike (2013), diversity in knowledge, skills, experience, abilities and having people from various backgrounds with varied methods of problem solving,

information process and varied perceptions enhances project performance. Positive outcomes are also associated with diverse and multicultural teams such as high productivity, creativity, adaptability and project success. A study by Moayyad and Udechukwu (2015) found that there are challenges associated with diversity management. Thus; having diverse team and multicultural workforce create tensions, conflicting interests, poor communication and low trust levels. Managing these challenges can result in positive impact on project success (Moayyad&Udechukwu, 2015). Another study by Karim (2016), considered that diversity in terms of gender, tribe, and religion among others if managed well affect final project positively. According to Karim, diversity management improves cohesiveness or collaboration among team members and does have a significant and positive relationship with the project success.

The findings contradict with the study by Darwin and Palanisamy (2015). Darwin and Palanisamy conclusively proved that diversity management of all three demographic profiles of the workforce - namely age, gender and ethnicity - does not significantly impact the performance construction projects.

### **5.5 Enhancing project performance through effective diversity management**

From the analysis of the results, it is clear that the most appropriate recommendations for enhancing project performance through effective management of diversity were: ensuring open communication and team work, valuing diversity, diversity recruitment strategy, commitment of organisation to diversity policies, government giving tax relief to organisation committed to workforce diversity management policies, and training of employees. This indicates that managing diverse workforce requires

efficient strategies. Successful diversity strategy must address organizational culture change to create a work environment that nurtures teamwork, participation and cohesiveness which positively impact performance. Team building and group training enhances mutual cooperation, reduces role conflicts and increases sharing among the diverse work force. Moreover efficient communication enhances information sharing among employees which increases organizational effectiveness. Furthermore, evaluation programmes are important in the organizational system to serve as a base line for current climate for diversity (Gupta, 2013)

The responses of the respondents that open communication and team work would ensure effective management of diversity confirms with the study of Wambui et al. (2013). As per Wambui, et al. (2013), open communication and teamwork must be encouraged across work functions. A diverse workforce requires efficient communication. Leaders must ensure that there are open avenues for employees to communicate new ideas, grievances, inputs and feedback. Communication is essential in a workplace as it is the backbone of productivity and success of projects of the the organization (Kinyanjui, 2013).

According to White (1999), training of employees by top management plays a crucial and leading role in making diversity management a success. The organization must exhibit a strong commitment to the training of employees. Leaders must receive diversity training to address myths, stereotypes and real cultural differences as well as organizational barriers that interfere with the full contribution of all employees. Top executives need experience of what it is like to be a minority (White, 1999). Training of recruitment personnel will make them experts in diversification matters. The



opinion of the respondents that commitment of organisation to diversity policies concurs with the study by White(1999). Diversity policies must be part of an organization's strategic business objective. Diversity should be a super ordinate goal rather than a goal ascribed to individual groups. Managers must be held accountable for meeting diversity goals. Performance evaluations and rewards should be tied to a manager's ability to develop and manage a diverse workforce. Top management must scrutinize compensation to insure fairness (White, 1999). According to Kinyanjui (2013), commitment of organisation to diversity policies improve the relationship between the managers and the employees like engaging the employees in long-term planning, avoiding discrimination in hiring and compensating and implementing a code of conduct that help the employees know how to behave towards each other improves work relations especially in a diverse environment.

For construction firm to be successful it must value diversity. A diversity climate must allow differences to be celebrated instead of merely tolerated. All employees must understand the competitive and moral advantages of diversity. They must respect and support workforce diversity through the recognition of distinctive cultural and religious holidays, ethnicity, age, gender, knowledge, educational background, diet restrictions, and the like. Often, organizations must undergo a workforce transformation before they can successfully achieve the full benefits of diversity (Carnevale & Stone as cited in White, 1999). Understanding, respecting and accepting diversified workforce are considered as key issues for managing projects successfully when doing business with people from different cultural backgrounds. Moreover, effective knowledge sharing with people having different cultural backgrounds and

areas of expertise is seen as one of the key issues for a project to be successful (Kivrak et al., 2009).

## **5.6 Summary**

The results obtained from the study are discussed in this chapter. The results showed that the workforce diversity management has positive and significant influence on civil engineering project success. Summary, conclusions and recommendations are presented in the next chapter.

## **CHAPTER SIX**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 Introduction**

This chapter provides a summary of the main findings, conclusions and recommendations of this research. The area for further research is also discussed at the end of this chapter.

#### **6.2 Summary of Findings**

The presentation of the main findings of the study was presented according to the specific objectives set out in Chapter One of this work.

##### **6.2.1 Challenges to managing diversity on civil engineering project sites**

The study found that lack of experienced experts for managing diversity, cost of diversity management, absence of priority by construction firms in managing diversity management, lack well-developed policies for handling diversity challenges, and resistance to change are the key challenges to managing diversity on civil engineering project sites in Ghana.

##### **6.2.2 Benefits of effectively managing workforce diversity on project sites**

The study revealed that, effectively managing workforce diversity gives the employees more skills, knowledge, competencies and interest, creates an inclusive harmonious working environment, gives all employees the opportunity to maximize their potentials and contributions, improves employees commitment and engagement

which reduces labour turnover, improves collaboration and cohesiveness among employees, and leads to employees satisfaction and organisational performance.

### **6.2.3 Influence of workforce diversity management on project success**

- The study found a positive significant correlation between encourages team work at workplace and successful completion of project on time ( $r = .860$ ,  $p < 0.01$ ), clients satisfied with project completed ( $r = .255$ ,  $p < 0.01$ ), completion of project to specified quality ( $r = .196$ ,  $p < 0.05$ ).
- The results of the study confirmed that there is a positive association between good communication and clients satisfied with project completed ( $r = .542$ ,  $p < 0.01$ ), completion of project to specified quality ( $r = .350$ ,  $p < 0.01$ ). Moreover, a significant association was found between avoiding discrimination and completion of project to specified quality ( $r = .927$ ,  $p < 0.01$ ).
- The test of hypothesis revealed that, workforce diversity management has a positive and significant influence on project success ( $F = 143.947$ ,  $p = .000 < 0.01$ ) having their P- value below the bench mark of (0.01), hence the null hypothesis is rejected and the alternate hypotheses is accepted.

### **6.2.4 Enhancing project performance through effective diversity management**

The study indicated that most appropriate recommendations for enhancing project performance through effective management of diversity were: ensuring open communication and team work, valuing diversity, diversity recruitment strategy, commitment of organisation to diversity policies, government giving tax relief to organisation committed to workforce diversity management policies, and training of employees.

### **6.3 Conclusion**

Construction firms are hiring more diverse workforce to withstand global challenges and to face extensive competition. Construction firms are faced with numerous challenges in managing diverse workforces. According to the study lack of experienced experts for managing diversity, cost of diversity management, absence of priority by construction firms in diversity management, lack well-developed policies for handling diversity challenges, and resistance to change are the key challenges to managing diversity on civil engineering project sites in Ghana. Diversity management helps construction firms gives the employees more skills, knowledge, competencies and interest, creates an inclusive and harmonious working environment, gives all employees the opportunity to maximize their potentials and contributions, improves employees commitment and engagement which reduces labour turnover, improves collaboration and cohesiveness among employees, and leads to employees satisfaction and organisational performance.

The study found that workforce diversity management has a positive and significant influence on project success. In enhancing project performance through effective management of diversity, construction firms should ensure open communication and team work, value diversity, ensure diversity recruitment strategy, be committed to diversity policies, government should give tax relief to organisation committed to workforce diversity management policies, and the employees of the construction firms should be trained.

#### **6.4 Recommendations**

Based on the conclusions, the researcher recommends that:

- Construction firms in Ashanti Region should come up with policies that are geared towards managing diverse workforce in the firms.
- Construction firms can succeed at diversity if the initiative that create, manage and value the diverse workforce has the full support of the top management.
- Education and communication should be enhanced by the site engineers to transform the behaviour of employees toward embracing and accepting diversity. Also the managers/engineers need to communicate more to employees, to give the workers the room to confide in them with their challenges.
- Managers/engineers should be prepared to change some part of their company techniques, when the diversity management techniques adopted are not working effectively but before doing so, the vision for the change must be communicated effectively.

#### **6.5 Suggestion for Further Research**

A replication of this study can also be conducted either in a different construction firms in an entirely different region since the current research was carried in Ashanti Region. A further research could be conducted to find out the effect of workplace diversity management on employees of construction firms.

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**APPENDIX A****KMO and Bartlett's Test for diversitymanagement**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.541
Bartlett's Test of Sphericity	Approx. Chi-Square	402.492
	df	55
	Sig.	.000

**KMO and Bartlett's Test for project success**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.510
Bartlett's Test of Sphericity	Approx. Chi-Square	64.513
	df	28
	Sig.	.000

**APPENDIX B****Questionnaire reliability testing**

<b>S/No.</b>	<b>Construct and measuring items</b>	<b>No. of Items</b>	<b>Cronbach Alpha (<math>\alpha</math>)</b>
1	Diversity management in constructions sites	11	0.716
2	Challenges to managing diversity	10	0.690
3	Benefits of managing workforce diversity	7	0.772
4	Success of civil engineering projects	9	0.828
5	Strategies for enhancing project performance	7	0.891

*Source: Researcher Field Construct, SPSS-23, 2018*

## **APPENDIX C**

### **UNIVERSITY OF EDUCATION, WINNEBA**

#### **COLLEGE OF TECHNOLOGY EDUCATION, KUMASI**

#### **QUESTIONNAIRE FOR SITE ENGINEERS AND MANAGING DIRECTORS**

Dear respondent,

My name is Obeng Kwaku, an M. Phil student at College of Technology, Kumasi (University of Education, Winneba). As part of the requirements for the award of this Degree, I am carrying out a research project titled “Workforce Diversity Management in the Construction Industry: Implications for Project Success in Ashanti Region. I pledge that any information provided will be purely used for academic purposes specifically in writing an academic research report for the award of the said Degree. The findings of this study will be handled with the strictest confidentiality. I would therefore be grateful if relevant information could kindly be provided to the best of your ability.

Thank you.

Please answer the following by ticking ( ✓ ) the appropriate box.

**Part One: General Information**

1. Kindly indicate your gender    Male                       Female

2. Kindly indicate your age group

A. 18-29 years     B. 30-39 years                     

C. 40-49 years                       D. 50 years and above                     

3. Please indicate your level of education

A. Secondary                       B. Certificate                                            C. Diploma                     

D. First Degree                       E. Master's Degree                                            F. PhD                     

4. Please indicate the composition of your workforce

A. Men only                       B. Women only                       C. Men and Women                     

D. Same tribe                       E. Different Tribes                       F. Only Ghanaians                     

G. Mixed Countries

**Part Two: Workforce Diversity**

*Workforce diversity means differences among various employees/workers in terms gender, age, ethnicity, religion, education, etc.*

Please indicate your level of agreement by ticking ( ✓ ) the appropriate box.

Note that: 5 = strongly agree; 4 = agree; 3 = neutral; 2 = disagree; 1 = strongly disagree.



## 1. Measuring diversity in construction industry

		5	4	3	2	1
1	The organisation has diverse workforce.					
2	The organisation recruits employees of different age.					
3	The organisation recruits employees of different gender.					
4	The organisation has employees of different ethnicity.					
5	The organisation recruits employees of different educational background.					
6	The organisation recruits employees of different professional qualification.					

## 2. Managing Diversity in your organization

1	The organisation encourages employees to work with employees of different professional qualification					
2	Labour personal issues and economic condition are taken into consideration					
3	The organisation encourages employees to work with employees with different ethnicity					
4	The organisation encourages employees to work with employees with different educational background					
5	The organisation ensures proper communication among all the employees					
6	Workers health condition are ensured					
7	The organization prohibits alcoholism and drug abuse at the workplace					
8	Income of labourers are sufficient					
9	Labour loyalty and satisfaction are paramount to the organization					
10	The organisation encourages employees to work with employees with different age					
11	The organisation encourages employees to work with employees with different gender					

**2. The key challenges in managing diversity on project sites**

		5	4	3	2	1
1	Diversity management is not seen as an organizational priority					
2	Cost of Diversity Management					
3	There is no well-developed policies for handling diversity challenges					
4	Resistance to change					
5	It is difficult to issue instructions to complete work task due to language barrier					
6	There is difficulty in communicating freely with other employees due to the language differences					
7	The procurement method employed does not encourage employee to work as a team					
8	Employees make mistakes due to the misunderstanding of instructions					
9	There are no experienced experts for managing diversity					
10	Bilingual employees are needed to reduce language and communication challenges which increase the project cost					

Any other challenges (specify) .....

.....  
 .....

### 3. Benefits of managing workforce diversity

Workforce Diversity at my workplace or in the organization

		5	4	3	2	1
1	Creates an inclusive and harmonious working environment					
2	Helps to value, reward and motivate employees					
3	Leads to employees' satisfaction and organizational performance					
4	Improves employees commitment and engagement which reduces labour turnover					
5	Gives the employees more skills, knowledge, competencies and interest					
6	Gives all employees the opportunity to maximize their potentials and contributions					
7	Improves collaboration and cohesiveness among employees					

Any other benefits (specify) .....

.....

.....

#### 4. Project success

*Project success means completion of project within the budget, specified quality, stipulated time and to the client's satisfaction.*

		5	4	3	2	1
1	Projects are completed within the stipulated budget					
2	Sharing of new ideas, different knowledge, new skills and approaches to projects are achieved by project team members					
3	Projects are always completed safely without any incidents or accidents					
4	Employees become satisfied at the end of the project					
5	Projects are completed with the stipulated time					
6	Projects are completed to specified quality					
7	Clients are satisfied with the completed projects					
8	Transfer of knowledge is always achieved between the project team members upon project completion					
9	Projects are completed successfully					

**5. The appropriate recommendations to improve project success include:**

		5	4	3	2	1
1	Open communication and team work					
2	Diversity recruitment strategy					
3	Training of employees					
4	Commitment of organisation to diversity policies					
5	Valuing diversity					
6	Government giving tax relief to organizations committed to workforce diversity management policies					
7	Giving awards to managers committed to diversity management strategies and policies					

Any other strategy (specify) .....