# ASSESSING THE PERFORMANCE OF LOCAL CONTRACTORS

## ON GOVERNMENT PROJECTS IN THE AKUAPEM NORTH

MUNICIPAL ASSEMBLY

AKROPONG-AKUAPEM E/R

KNUST

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COMMONWEALTH EXECUTIVE MASTER OF BUSINESS ADMINISTRATION,

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## **DECLARATION**

I hereby declare that this submission is my own work towards the Commonwealth Executive Masters in Business Administration and that, to the best of my knowledge, it contains no material previously published by another person nor degree of the University, except where due acknowledgement has been made in the text.

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#### **ABSTRACT**

This research work seeks to find out the performance of local contractors on government projects. Assessing the performance of local contractors was identified as the independent variable and the government projects were identified as the dependent variable. The persistent poor quality of on-going and finished projects and unmet deadlines of local contractors has contributed to the perception that the local contractor is inefficient. The researcher therefore sought to find out whether local contractors have the technical capacity to undertake project awarded to them. The researcher needed also to find out the mode of local contractor selection. The literature provided discussions on some captions like the performance assessment in the construction industry in Ghana, the Procurement Act, performance indicators and the like. Information was gathered, using questionnaires and interview guides. They were made of both close and open ended questions. Eighteen questions on the questionnaire and sixteen questions on the interview guides were designed for staff from various department selected and local contractors respectively. Data was sourced from both primary and secondary sources. The non probability sampling technique was adopted in selecting the sample from the population. Data gathered was analyzed by using Statistical Package for Social Science. It was found out that most local contractors performed unsatisfactorily due to the use of inferior material even though they were monitored regularly. It was also found out the Assembly delayed in making payment to the local contractors. It was recommended that prompt payment should be made to local contractors to enable them complete their projects on time.

## **DEDICATION**

I dedicate this piece of work to my husband Mr. Victor Augustine Dumolga, and my daughters Lynette and Yanni Dumolga.



#### **ACKNOWLEDGEMENT**

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#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1 BACKGROUND TO THE STUDY

Performances of local contractors on projects are assessed to ensure that deliverables are in line with specification. Municipal Assemblies are charged to champion the development agenda of the central government in the municipality.

According to Lee et al. (2001) throughout the world, the business environment within which organizations operate continues to change rapidly. Organizations failing to adapt and respond to the complexity of the new environment tend to experience survival problems. Samson and Lema (2005), also assert that with increasing higher users' requirements, environmental awareness and limited resources on one side, and high competition for construction business market place on the other side, contractors have to be capable of continuously improve their performance.

Performance assessment is fundamental to organizational improvement. The importance of performance assessment has increased with the realization that to be successful in the long-term requires meeting and measuring performance against all stakeholders' needs including customers, consumers, employees, suppliers, local community stakeholders, and shareholders. While the importance of performance assessment is difficult to quantify, it is evident that virtually all in texts, research, and case studies on organizational improvement, performance measurement plays a central role. It is worth noting that performance measurement is a requirement for benchmarking and business excellence.

"In order to have a successful project, it should be guaranteed by some means that all participants are experienced and trained to do the project: it matters what kind of network

is conducting the work. (Odeh and Battaineh, 2002). In the construction industry's present scenario, the systematic ways of performance measurement have influenced many construction firms, government sectors, public and private clients and other project stakeholders (Takim, 2003). Performance measurement has been used in collecting and reporting information about inputs, efficiency and effectiveness of construction projects.

Kagioglou et al. (2000) are of the view that, construction firms use performance measurement to judge their project performances, both in terms of the financial and non-financial aspects and to compare and contrast the performance with others in order to improve programme efficiency and effectiveness in their organizations. Moreover, according to (Steven et al. 1996), performance measurements are needed to track, forecast and ultimately control those variables that are important to the success of a project, and this has been agreed by many researchers and practitioners (Sinclair and Zairi, 1995).

The subject of performance measurement or assessment has become a matter of concern to several countries at different levels of socio-economic development which have realized the need to improve the performance of their construction industry (Ofori 2000, Beatham et al 2004). Ofori, (2000), again assert that discontent with the state of their construction industries, government in development countries is supporting various initiatives for improvement.

ISSER, (2007) reports that, the construction industry in Ghana plays an essential role in the socio economic development of the country, in 2006 and 2007, the industry contributed 0.7% and 1.0% respectively to Gross Domestic Product (GDP). According to the government of Ghana Growth and Poverty Reduction Strategy report (2005) the

construction industry contributed 8.8% to GDP in 2004, ranking third behind agriculture (35.99%) and government services (9.98%).

With Assibey (2008) he says, the activities of the construction industry have great significance to the achievement of national socio-economic goals of providing infrastructure, refuge and employment. These includes hospitals, schools, townships, offices, houses and other buildings; urban infrastructure (including water supply, sewage, drainage) highways, roads, ports, railways, airports, power systems, irrigation and agricultural systems and telecommunications. The industry deals with all economic activities directed to the creation, renovation, repair or extension of fixed assets in the form of buildings, land and improvement of an engineering nature. Although, figures are not readily available, the industry generates substantial employment to unskilled, semiskilled and skilled work force and provides a growth impetus to other sections of the economy. It is essential therefore, that, this vital activity is nurtured for the healthy growth of the economy.

#### 1.2 STATEMENT OF THE PROBLEM

The construction industry is an important part of every economy and that performance assessment holds the key to its achievement of national socio-economic goals.

Persistent poor quality of on-going and finished projects and not meeting deadlines by some local contractors has contributed to the perceptions that the local contractor is inefficient. The Ghanaian Times, Thursday, 12 March, 2009, pg. 9 states "the Ghanaian contractor generally, has been perceived as inefficient, that is, the Ghanaian contractor lacks managerial skills and has limited technical know-how. The Ghanaian contractor has

also been accused of not being able to deliver completed projects to specifications and quality standards".

Again, on August 22, 2011 the Ghanaian Times featured Mr. Kweku Amua-Mensah Coordinator of the Construction Industry Efficiency Improvement Programme, who asserted that, the Building and Civil Engineering Contractors Association of Ghana is to institute performance assessment programme for its members. He said the programme was to ensure that contractors executed projects excellently for their clients including the government. This he indicated, the association would also set up performance rating to enable the public to know the contractors to engage for specific projects. He stated, the government was spending so much on construction projects but the performance of some contractors was below expectation.

## 1.3 OBJECTIVES OF THE STUDY

The objectives of this study are to:

- Find out whether local contractors have the technical capacity to undertake a project.
- 2. Determine whether there are measures put in place to monitor the performance and quality of projects of the local contractors.
- 3. Determine whether the environment of the project affect the project.
- 4. Find out the criteria for the selection of local contractors.
- 5. Determine the sources of funding for project executed by the local contractor.

## 1.4 RESEARCH QUESTION

The questions that will guide the researcher are:

1. Do local contractors have the technical capacity to undertake building project?

- 2. What are the measures put in place to check the performances of local contractors?
- 3. What factors affect the performances of local contractors?
- 4. What criteria are in place for the selection of local contractors?
- 5. What are the sources of funding for projects carried out by the local contractor?

#### 1.5 SIGNIFICANCE OF THE STUDY

The study would help management of the Municipal Assembly to improve upon the routine payment made to contractors. It would also help policy makers identify the challengers the local contractor encounter in the execution of project. It would help the local contractors put in their best as they are being criticized. Findings from the study would be of help to monitoring team of projects in the Assembly to assist the local contractors to correct deviation which they might have overlooked. Copies of the study report can be made available to other Assemblies.

#### 1.6 SCOPE OF STUDY

There are 213 Metropolitan, Municipal and District Assemblies in the Country. The Eastern Region has 10 Districts and 16 Municipal Assemblies; however, the scope of study was limited to the Akuapem North Municipal Assembly.

#### 1.7 LIMITATIONS OF THE STUDY

The study like any other research had its limitation;

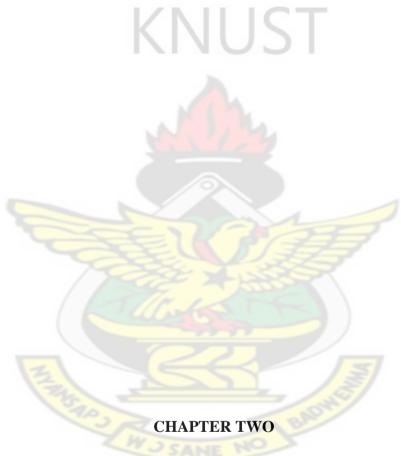
First, due to the fact that the time frame for the collection of data was short, it could have affected the final outcome of the research as the researcher had to combine academic activities at the same time. However, the researcher managed to bring out her possible best.

Again, some respondents were not willing to co-operate with the researcher in the data collection process which was critical in providing the needed inputs for the research. The researcher tried and established the necessary rapport that made her overcome this problem.

Finally financial constraints in the course of the research, the researcher had to spend a lot of money in printing of the research work, photocopying relevant research materials, travelling and transport cost to gather information and making phone call to check whether questionnaires were answered.

#### 1.8 ORGANISATION OF THE STUDY

The research work is divided into five (5) chapters. Chapter one focuses on the background to the study, Statement of the problem, Objectives of the study, Research questions, Significance of the study, Scope of the study, limitation of study and Organization of the study. Chapter two involves the review of related literature on the relevance of the research. Chapter three was the methodology. This looked at the research design used in conducting the study, the population of the study, the sample and sampling procedures, data gathering instrument. It also indicated data processing procedure and data analysis plan. The data analysis and discussion was captured in chapter four. Chapter five was devoted to the summary of major findings and conclusion and recommendation.



## LITERATURE REVIEW

## 2.1 INTRODUCTION

Performance management and performance assessment can help government agencies develop a continuous system of improvement. Consistent performance measures can help reveal when a program or service is not being delivered properly or effectively, which can result in insufficient services to the public. It is important for government agencies to be

receptive to introducing performance measures to become more focused on outputs and outcomes of a program. Performance measurements can also result in positive behavioral change. Local contractors should embrace the concept of continuous improvement and be willing to be measured (benchmarked) against outcomes. Establishing a receptive climate for performance measurement is as important as the measurements themselves.

The more concrete and specific the objective is, the easier it will be to identify performance measures. To do this, ask "How can 1 tell the difference between a good job and a poor job on this objective?" Quantity, accuracy, efficiency and timeliness are typical considerations. A performance measure defines quality on the objective, which may have many aspects. For example, in a major report, performance measures might include: completeness, timeliness, style and format, input from others, and how it is received by its users. Performance measures can refer to both the product and the process. (Chan et al 2004)

## 2.2 DEFINING PERFORMANCE MEASUREMENT

The criteria cost, time and quality are in no doubt the foundation of performance measurement systems. In theory, performance measurement appears to be one of those "suitcase words (Bourguignon, 1995) in which everyone places the concepts that suit them, letting the context take care of the definition". For example, Max Moullin (1990) defined performance measurement as "evaluating how well organizations are managed and the value they deliver for customers and other stakeholders".

Alternatively, Adams (2002), defines performance measurement as "the process of quantifying the efficiency and effectiveness of past action". However, Hatry, (2006) defines performance measurement as the "regular measurement of the result (outcomes) and efficiency of services or programmes". While these definitions provide an understanding of the performance measurement concept each one of the definitions above also has its own limitations. The purpose of performance measurement is regular assessment, which suggests that if we want to manage for results through managing measures, then, we should consider performance measurement not just as a rear-view mirror to evaluate our past performance but as a tool to support day to day decision making process.

For the purposes of this study or research, the definition of performance measurement as given by (Takim et al., 2003) would be adopted. Takim defined performance measurement as the "regular collecting and reporting of information about the inputs, efficiency and effectiveness of construction projects". The definition provides the opportunity for a day to day decision to be taken concerning the efficiency and effectiveness of the inputs applied which is a vital component of any effort at managing for results.

#### 2.2.1 Performance Measures and Performance Indicators

Before any effective performance measurement can be undertaken there is the need to develop an objective and consistent measureable criteria. Various studies have classified these measurable criteria into performance measures and indicators.

Love et al (2001) have identified a distinction between performance indicators; performance measures and performance measurement. They said performance indicators specify the measurable evidence necessary to prove that a planned effort has achieved the desired result. In other words, when indicators can be measured with some degree of precision and without ambiguity they are called measures. However, when it is not possible to obtain a precise measurement they are usually referred to as performance indicators.

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On the other hand, Performance measures are the numerical or quantitative indicators Sinclair et al (1995) and performance measurement is a systematic way of evaluating the inputs and outputs in manufacturing operations or construction activity and acts as a tool for continuous improvements (Mbugua et al 1991). In response to calls for continuous improvement in performance, many performance measurement measures have emerged in management literature. Some examples include the financial measures (Kangari et al., 1992), client satisfaction measures (Kometa, 1995; Chinyio et al., 1998), Employee measures (Bititci, et al 1994), Industry measures (Latham, et al 1994).

Cordero, (1990) also classifies performance measurements based on the method of measurement and areas of measurement. The methods of performance measurement can be in terms of the technical performance, the commercial performance and the overall performance. Furthermore, he proposes a model of performance measurement in terms of output and resources to be measured at different levels. Outputs are measured to determine whether they help to accomplish objectives and resources are measured to determine whether a minimum amount of resources is used in the production of outputs. However, in his model, Cordero failed to reflect the interest of stakeholders, their needs and expectation. That is, if construction organizations are to remain competitive in the

long run, they need to develop and better understand their relations with their customers, suppliers, employees, lenders and the wider community as suggested by Love et al., 2000.

Hence, performance measurement has to incorporate the interest of the stakeholders. In addition, Love et al., (2000) proposed a model known as Stakeholders Perspective Measurement (SPM) that adequately considers relations with customers, suppliers, employees, financiers and the wider community. In Zavadskas and Kaklauskas, (1996) bid to determine who an efficient contractor is, identified estimated cost of project, duration of construction, quality of final building product, standard of workmanship, ability to formulate practical programmes, employee development relations, with subcontractors and statutory authorities, degree of co-operation with stakeholders among others as criteria for determining efficient contractor.

Furthermore, (Xiao and Proverbs, 2003) defined overall contractor performance to embrace construction cost, construction time, construction quality and sustainable development, the philosophy being that the achievement of one aspect of performance should not be at the expense of another. Table 2.1 below shows the indicators of overall contractor performance as suggested by Xiao and Proverbs.

Table 2.1

Indicators of overall performance

Aspect	Performance indicators
Cost	Construction Cost
	Cost Certainty
	Client satisfaction on cost
Time	Construction Time
	Time Certainty
	Client satisfaction on time
Quality	Defects
	Liability Period
	Client satisfaction on Cost

Sustainable Development	Profitability
	Partnership
	Investment in R & D and training
	Environment Protection
	Health and Safety
	•

## 2.2.2 Technical Performance Measurement

Technical performance measurement compares technical accomplishments during project execution to the project management plan's schedule of technical achievement. It requires definition of objective quantifiable measures of technical performance which can be used to compare actual results against targets. Such technical performance measures might include weight, transaction times, number of delivered defects, storage capacity and the like. Deviation, such as demonstrating more or less functionality than planned at a milestone, can help to forecast the degree of success in achieving the project's scope, and it may expose the degree of technical risk faced by the project. (PMBOK 2008)

## 2.2.3 Performance Report

A PMBOK (2008) state, performance report is the process of collecting and distributing performance information, including status reports, progress measurement, and forecasts. The reporting process involves the periodic collection and analysis of baseline versus actual data to understand and communicate the project progress and performance as well as to forecast the project result.

Performance reports need to provide information at an appropriate level for each audience. The format may range from a simple status report to more elaborate reports. A simple status report shows performance information, such as percent complete, or status

dashboards for each area that is scope, schedule, cost, and quality. More elaborate report may include:

- ➤ Analysis of past performance
- Current status of risks and issues
- > Work completed during the period
- Work to be complete next
- Summary of changes approved in the period and other relevant information which must be reviewed and discussed.

## 2.2.4 Project Performance Appraisals

Objectives for conducting performance appraisal during the course of a project can include clarification of roles and responsibilities, constructive feedback to team members, discovery of unknown or unresolved issues, development of individual training plans, and the establishment of specific goals for future time periods.

The need for formal or informal project performance appraisal depends on the length of the project, complexity of the project, organizational policy, labour contract requirements, and the amount and quality of regular communication (PMBOK 2008).

## 2.2.5 Importance of Performance Measurement

Osborne and Gaebler, (2005), mentioned that failure to measure results means that a distinction cannot be made between success and failure, and if success is not appreciated, it cannot be rewarded. This means that, if success is not rewarded, then, probably failure is being rewarded and the inability to recognize failure means it cannot be corrected. But

if results can be demonstrated, then, improvement can be achieved. A major use of performance measurement is to establish accountability so that stakeholders in the construction industry can assess what programmes have been achieved with the funds provided (Neely, 2002). Another major use is to help stakeholders develop and then justify budget proposals that support strategic planning and goal-setting. Performance measurement also helps or assists stakeholders in determining effective use of resources (Neely, 2002).

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Public and private managers are of the view that performance information will not help them because their problem is too few resources to do what needs to be done. Yet managers need performance measurement to enhance their decision making process as how to increase their ability to get the job done with whatever resources they have. Performance measurement also assists in the improvement of customer service (Hatry, 2006). According to (Greiner, 2007) performance measurement gives a basis for rating the outcomes and competitiveness of programmes or activities. It also Stimulates Productivity and Creativity that is to say performance measures can be used to create new incentives and rewards to stimulate staff's creatively and productivity. Organizations may be able to reduce costs while maintaining or even improving service delivery if they implement creative ideas to reach the performance measurement goals.

Performance measurement changes the focus from what is achieved over how the job is completed. This enables administrators to manage and motivate employees to develop or try new ideas that will achieve the stated objectives. Performance measurement can improve the budget process and help to develop budgets that are based on realistic costs

and benefits. Performance measurement can also improve the monitoring of organization budgets by measuring whether the budget and expected service levels are being met.

Reporting to the public improves municipal government accountability to taxpayers. Accountability is improved because stakeholders and taxpayers involved can be informed about the achievements and challenges succinctly. Performance measurement also allows managers and administrators to delegate authority with greater confidence because their expectations are clearly stated, and a consistent method for reviewing actual performance.

Nassar (2009) posits that, the importance of performance measurement in the construction industry is believed to accrue to the major stakeholders in the industry, that is, the client, consultant and the contractor. To the client, he mentioned that best value for money will be achieved since the project stands the chance of being delivered on schedule to and to quality standards as spelt out in the specifications. Performance measurement also provides the client with an objective and consistent means of implementing prequalification process since performance information of different contractors would be available for comparison and selection. To the consultant, Nassar (2009) mentioned that performance measurement will help the consultant to know specific areas of the contractor's performance to focus during construction supervision to ensure a smooth implementation of the project. Also, it will provide the consultant with reliable, accurate and consistent means to assess contractor performance.

To the contractor, Nassar (2009) again mentioned that performance measurement will provide the contractor with an objective assessment of performance with strength and

weaknesses pointed out. The contractor will know which areas need strengthening in order to improve performance. Furthermore, performance measurement will help the contractor to institute improvement measures which will lead to an increase in quality of work, cost effectiveness and efficiency of operations.

Results become the focus, leading to a closer review of how service is delivered, how well it is delivered, its costs, and the impacts on the community. Service delivery can be regularly altered or tuned to respond to current taxpayer needs. A focus on client needs causes organizations to rely more on cooperation and partnership. Setting targets improvements in performance can occur simply by setting clear, measurable targets.

Improved communication, setting targets, comparisons, a focus on service, and access to a directory of best practices can lead to improved project outcome. Project can be more easily altered and adjusted to the current situation because the changes are revealed earlier. (http://www.mah.gov.on.ca/Page297.aspx. Accessed 3<sup>rd</sup>March 2012)

## 2.2.6 Characteristics of Effective Performance Management

Following characteristics for effective Performance management were identified;

A clear vision and purpose and a focus on outcomes

Commitment to and enthusiasm for realizing the community's aspiration

Effective democratic and community engagement

Robust planning, monitoring and review systems

Strategic and enabling corporate management arrangements. (www.harrogate.gov.uk)

## 2.3 TOTAL QUALITY MANAGEMENT IN CONSTRUCTION INDUSTRY

Total Quality Management (TQM) is concerned with a holistic approach to continuously meeting customers' needs in most competitive ways. As defined by Rampey and Roberts (1992), Total Quality Management aims at continual increase in customer satisfaction at continually lower real cost.

The industry is often criticized for poor performance. There are many reasons for this. The industry is comprised of a multitude of occupations, professions and organizations. The owner perceives a need to invest in a building project so as to meet the needs of the public. The contractor, have profit as his main goal and the owner has the goal of minimum costs. Many service providers want speedy completion but that can often result in sloppy workmanship. Goals tend to conflict as different parties have different priorities (Milakovich, 1995).

Quality management systems can contribute to the mitigation and elimination of rework or non conformances, enhance client satisfaction, performance, and provides the catalyst for the synergy relative to the project parameters such as client satisfaction, cost, quality, and time (Smallwood and Rossouw, 2008). Establishing the project requirement for quality begins at project inception. A careful balance between the owners requirement of the project costs and schedule, desired operating characteristics, materials of construction and the design professionals' needs for adequate time and budget to meet those requirements during the design process is essential.

Total Quality Management (TQM) is increasingly being adopted by construction companies as initiatives to solve the quality problems in the construction industry and to meet the needs of the final customer. As suggested by Oakland and Aldridge (1995), if

ever an industry needed to take up the concept of total quality management it is the construction industry

#### 2.4 PERFORMANCE ASSESSMENT IN THE CONSTRUCTION INDUSTRY

Ward et al. (1991) opine that, in assessing the performance of contractors, 'a common approach is to evaluate performance on the extent to which client objectives like cost, time and quality were achieved'. On the international scene, especially in the well advanced countries such as the UK, USA and Japan these are seen as the three traditional indicators of performance (Moshsini et al (1992). These traditional measures have become so popular and entrenched due to the objectivity and simplicity surrounding their measurement. Again, in today's construction environment, timely completion within budgetary allocations are highlighted as critical to client requirement in order to attain 'first in the market' advantage over competitors (Kog et al., 1999). These 'three measures' provide an indication as to the success or failure of a project, but do not in isolation, provides a balanced view of the performance measurement. Furthermore, their implementation in construction projects is apparent at the end of the project, and therefore, they can be classified as 'lagging' rather than 'leading' indicators of performance.

Indeed, Ward et al (1991) are of the view that 'looking back on the conduct of a project, what sticks in the mind is often not so much financial success or early completion, but memories of other people involved and abiding impressions of harmony, goodwill and trust or, conversely, of argument, distrust and conflict'. The Client's willingness to pursue a given procurement route to achieve a future project is likely to be strongly influenced by these factors. Therefore, it is clear that the traditional measures of assessing the

performance of contractors, though very significant, are not sufficient to assess their performance.

Kagioglou et al, (2000) agree that the methods used to measure performance in construction projects fall into three main categories:

- 1. Financial Perspectives: That is, how do the project's financial stakeholders view the project? For example, use of cash flow and cost benefit analysis;
- 2. The internal business process perspective: That is, how are we performing in our key process activities? For example, use of critical path analysis.
- 3. The customer perspective: That is, how do our existing and potential customers see it?

Kagioglou et al. (2000) identified some limitations in the three main categories above in that the participants in construction projects, where the aim is to find methods for measuring and managing performance that can be consistently applied to the set of project participants. Again, the categories lack validation from extensive empirical evidence to form the basis for effective performance measurement for organization.

During the 1990's there has been some interest in 'emerging' techniques and philosophies to measure and manage performance, such as total quality management (TQM), benchmarking, business process re-engineering (BPR) and business process management, that have shifted the focus from 'lagging' towards 'leading' indicators of performance. The majority of these concepts have been imported into construction from manufacturing industry (Koskela, 1992). These techniques have tended to concentrate on construction productivity and those factors that influence it (Motwani et al; 1995), with the aim of

achieving continuous improvement through the 'leading' indicators of performance. For example, the Integrated Performance Index (Pillai et al., 2002) in India was developed for performance measurement of Research and Development (R&D) projects, based on their real-life experiences of working on the management system for the Integrated Guided Missile Development Programme of India. The usefulness of the integrated performance index is that it can be applied at all phases of the project life cycle to rank the project for selection, to compare project performance under the execution phase and to act as an input for the management of future projects. Another example is the Quality Assessment System in Constructions (QLASSIC) model developed by the Construction Industry Development Board of Malaysia to assess the contractor's performance in terms of quality of the finished product (CIDB Malaysia, 2001). Some few years ago the UK construction best practice programme (CBPP) launched the 'key performance indicators' (KPIs) for construction. This was to create an industry-wide performance measurement system to enable good companies to demonstrate their abilities and allow clients to select contractors and consultants on the basis of reliable data (Bprc, 1999). These KPI's give information on the range of performance being achieved in all construction activities and they include the following:

- 1. Client satisfaction product
- 2. Client satisfaction service
- 3. Defects
- 4. Predictability cost
- 5. Predictability time
- 6. Profitability
- 7. Productivity
- 8. Safety

#### 9. Construction Cost

#### 10. Construction Time.

These KPIs are intended for use as benchmarking indicators for the whole industry, whereby an organization can benchmark itself against the national performance of the industry and identify areas for improvement, that is, where they perform badly. Further discussion on the above KPIs would be presented under the discussion on performance measurement systems.

## (a) Performance

Everybody has an idea of what the term performance means. It is however very difficult to define. It is sometimes used to describe the manner in which something is done, how effectively somebody does a job or something that is carried out or accomplished. Two key definitions that is suited to our purposes are:

- 1. "Performance is the calculation of achievement used to measure and manage project quality." (PMBOK 2008).
- 2. "Performance is the degree to which a development intervention or a development partner operates according to specific criteria/standards/guidelines or achieves results in accordance with stated goals or plans. (Source: A guide for Project M & E: Glossary of M & E Concepts and Terms).

From these two definitions, it is evident that performance involves carrying out a task, the progress of which can be measured and compared using a set of stated requirements. These requirements when fully met make a product or an output satisfy set or stated needs.

# 2.5 THE SIGNIFICANCE OF THE GHANAIAN CONSTRUCTION INDUSTRY

Construction activities and its output is an integral part of a country's national economy and industrial development. The construction industry can mobilize and effectively utilize local and human material resources in the development and maintenance of housing and infrastructure to promote local employment and improve economic efficiency (Anaman et al 2007). Field et al (1988) states, the construction industry make a noticeable contribution to the economic output of a country; it generates employment and incomes for the people and therefore the effects of changes in the construction on the economy occur at all levels and in virtually all aspects of life. Hence, the construction is regarded as an essential and highly visible contributor to the process of growth.

Ahadzie (2007) supported the above assertion when he mentioned that in the early 1990s, the contribution of the industry to GDP dropped to 2.7% but mentioned again that, recent figures indicate that it has once again appreciated to a significant level of 4.2%. Currently, the construction industry's share of GDP and contribution to growth are 8.9% and 1.0% respectively (ISSER, 2007)

#### 2.5.1 Contractor Performance Studies in Ghana

The quality of performance and negative perceptions of Ghanaian Contractors has become a great concern to the Government and general public (Taskforce Report, 2007). In this regard, a five person taskforce was therefore set up by the Ministry of Finance and Economic Planning (MOFEP) on October 10, 2007 to study the situation, make

recommendations and submit its findings. The Taskforce Report recommended a rating and ranking scheme to contractors to encourage them to strive for excellence. The Report also proposed an Award Scheme for contractors which they believe would immensely improve the construction in Ghana. This will subsequently remove the negative perception of local contractors and enable them to compete favourably with international contractors.

The literature search revealed that not much documentation had been undertaken in respect of contractor performance in Ghana. However, Owusu (1999) identified two main factors affecting contractor performance in Ghana. The two factors were Financial and Managerial Capacities of the firm. Under the financial factors he mentioned that contractor's financial stability in terms of access to credit was questionable and that has gone a long way to affect their performance over the years. Again under the managerial capacities he identified site management practices, lack of technical expertise among others as factors influencing contractor performance in Ghana.

Furthermore, Mensah, (2008) investigated into factors affecting the various classes of contractors in Ghanaian construction industry. They identified qualified staff, employee development, organizational structure, equipment holding, labour relations, site management practice, communication, health and safety practices, client satisfaction, access to finance, risk management, among others as factors affecting contractor performance in Ghana.

#### 2.6 WHAT IS A PROJECT

A project is a temporary endeavour undertaken to create a unique product, service, or result. Temporary nature of projects indicates a definite beginning and end. The end is reached when the project's objectives have been achieved or when the project is terminated because its objectives will not or cannot be met, or when the need for the project no longer exists. Temporary does not necessarily mean short in duration. Temporary does not generally apply to the project, service, or result created by the project; most projects are undertaken to create a lasting outcome. For instance a project to build a national monument will create a result expected to last centuries. Projects can also have social, economic and environmental impacts that far outlast the project themselves.

Every project creates a unique product, service, or result. Although repetitive elements may be present in some project deliverables, this repetition does not change the fundamental uniqueness of the project work. For example, office buildings are constructed with the same or similar materials or by the same team, but each location is unique with different design, circumstances, different contractors, and so on.

An ongoing work effort is generally a repetitive process because it follows an organization's existing procedures. In contrast, because of the unique nature of projects, there may be uncertainties about the products, service, or results that the project creates. Project tasks can be new to a project team, which necessitate more dedicated planning than other routine work. (PMBOK)

Lake (1997), also defines a project as a temporary endeavor involving a connected sequence of activities and a range of resources which is designed to achieve a specific and

unique outcome and which operates within time, cost and quality constraints and is often use to introduce change.

A project is a set of people and other resources temporary assembled to reach a specified objective, normally with a fixed budget and with a fixed time period. Projects are generally associated with products or procedures that are being done for the first time or with known procedures that are being altered Graham (1985).

In the lay person terms, a project is a grouping of tasks with a specified start and end date, a specific and defined objective, and a budget and resources assigned to the effort.

## A project can create:

- a. A product that can be either a component of another item or an end item in itself,
- b. A capability to perform a service (example a business function that supports production or distribution),
- c. A result such as an outcome or document (example a research project that develops knowledge that can be used to determine whether a trend is present or a new process will benefit society).

In other words a project involves either implementing something new such as a new programme or new system, or enhancing an existing programmes or systems.

## 2.6.1 Monitor and Control Project Work

According to the (PMBOK) Monitor and control work is the process of tracking, reviewing, and regulating the progress to meet the performance objectives defined in the project management plan. Monitoring is an aspect of project management performed throughout the project. Monitoring includes collecting, measuring and distributing

performance information, and assessing measurements and trends to affect process improvement. Continuous monitoring gives the project management team insight into the health of the project, and identifies any areas that may require special attention. Control includes determining corrective or preventive actions or replanning and following up on action plans to determine if the actions taken resolved the performance issue. The monitoring and control project work process is concerned with, comparing actual project performance against the project management plan. Assessing performance to determine whether any corrective or preventive actions are indicated, and then recommending those actions as necessary. Identifying new risks and analyzing, tracking, and monitoring existing project risks to make sure the risks are identified, their status is reported, and that appropriate risk response plan are being executed. Maintaining an accurate, timely information base concerning the project's products and their associated documented through project completion. Providing information to support status reporting, progress measurement, and forecasting. Providing forecasts to updated current cost and current schedule information; and monitoring implementation of approved changes as they occur.

#### 2.7 PROCUREMENT

Procurement as a concept has also received a myriad of definitions from various authors. Howard, T. L (1993), defines procurement as the "acquisition by a manufacturer for his necessary primary material, supplies, equipments and so forth, by any method whatsoever". Koomson S.E.(1971) defines procurement as the function responsible for obtaining by purchasing, lease or other legal means, equipment undertaking for use in production. Branch, (2001) also defines procurement as the process by which organizations define their needs for goods and services, identify and compare the supplies

and suppliers available to them, negotiate with source of supply, make contracts and pay for the goods and services required.

#### 2.7.1 Public Procurement Act

The principal law that regulates procurement in the Public Service and other state institutions is the Public Procurement Act, 2003, Act 663. The Act received Presidential Assent on the 31<sup>st</sup> December, 2003. It is an Act to provide for public procurement, establish the Public Procurement Board; make administrative and institutional arrangements for procurement; stipulate tendering procedures and provide for purpose connected with these.

It is estimated by financial experts that 70% of expenditure in the public is on procurement. This compelled Government to promulgate the Act in 2003 to replace earlier laws which were not able to curtail corrupt practices in procurement. The coming into force of the Public Procurement Act,2003 repealed existing laws such as the District Tender Board Regulations, 1995 (LI 1606), Ghana National Procurement Agency Degree, 1976 (SMCD 55) and the Ghana Supply Commission Law, 1990 (PNDCL 245).

According to the Act, Procurement comprises three components -goods, works and services. Procurement of goods includes procurement of materials, foodstuffs, stationary, vehicles etc.

Procurement of works includes the building of schools, clinics, bridges, rehabilitations and maintenance of buildings etc. Procurement of services includes feasibility studies, consultancies, technical assistance, cleaning contracts, revenue collection.

# 2.7.2 Objectives of Procurement

According to the Act, there are some objectives inherent in procurement and they include. Purchase the right quality of goods and services at the right time, in the right quantity, from the right source at the right price.

Provide institutions with a constant flow of goods and services to meet its needs.

Reduce costs through more effective purchasing by buying wisely, efficiently and ethically to obtain the best value for money.

Ensure continuity of supply through having good relationships with existing suppliers and contractors and developing other sources of supply.

Manage stocks in the best way so as to provide the best possible service to the public at the lowest cost.

#### 2.7.3 Procurement Entity

Section 15 of The Act specifies that a procurement entity is responsible for procurement, subject to The Act and to such other conditions as may be laid down in the procurement regulations and administrative instructions of the Minister, issued in consultation with the board.

- (2)Also, the head of an entity and any other officer to whom responsibility is delegated are responsible and accountable for action taken and for any instructions with regard to the implementation of the Act that may be issued by the Minister acting in consultation with the board.
- (3) Again, Procurement decisions of an entity shall be taken in a corporate manner and any internal units concerned shall contribute to the decision making process.

(4) The head of an entity is responsible to ensure that provisions of the Act are complied with; and concurrent approval by any Tender Review Board shall not absolve the head of entity from accountability for a contract that may be determined to have been procured in a manner that is inconsistent with the provisions of the Act.

# 2.7.4 District Tender System

Article 39 of the Local Government Authority Act 462 makes provision for the establishment of the District Tender Boards. The Board has the District Chief Executive (DCE) as the chairman and the District Coordinating Director (DCD) as the Secretary. Other members of the Board are the Presiding Member, Chairmen of the Works and Finance Sub-Committees, District Engineer, District Planning Office and the Member of Parliament (MP). The District Tender System as formulated under law provides in detail the tender process and the evaluation of submitted bids for contracts and consultancy services for District Assemblies. It also provides for the process of awarding contracts and mandatory requirement for copies of minutes of the meeting at which a contract is awarded shall be sent to the Regional Coordinating Council and the Minister of Local Government.

There are dual tendering processes in the Assemblies, the Selective and the Open ones, depending on the type of project one is dealing with. While Selective tendering involves calling some good performing contractors to tender for particular procurement, the Open one entails a much more detailed procedure. Steps enumerated include: advertise the bid; contractor buys the form (one contractor allowed to buy one bid only) and submit their proposals; the Tender Committee opens the bid in the presence of bidders, both technical and financial proposals are then reviewed by an Evaluation Team, recommendations

submitted to the Tender Committee for the selection of the best and lowest bidder.

(Source: Akuapem North District Assembly)

#### 2.8 TENDER EVALUATION

Holt, (1998) mentions that the tender evaluation considers specific criteria that can measure the suitability of a contractor for the proposed project. According to the Standard Award Criteria for Housing Service Contracts by South Bedfordshire UK, the purpose of the Tender Evaluation Assessment is to evaluate and award points on tender submissions from each contractor based upon price and quality. The points awarded will determine the number of contractors who may be selected for a post tender interview with the Evaluation Panel.

# 2.8.1 Contractor Selection Methods

#### (a) Single Criteria (Bid Price)

This is largely through competitive bidding where the bid price is evaluated, after preliminary inspection found tenderers to meet minimum tender requirements, and the lowest price bidder is awarded the contract. Ang *et al* (1984) state that traditional forms of procurement and tendering supported by prescriptive, solution-based specifications and the lowest price only, are suitable for routine projects but will hamper innovation in other types of projects. Selection of the lowest price bidding contractor is one of the major causes of the poor performance of a construction project (Nerija et al 2006). The "lowest price wins" philosophy has been a consistent theme of contractor selection over the years. It is important to comprehensively elucidate the lowest price win selection preference and compare it with the use of a multi-criteria selection approach in the tender evaluation process (Cheeh *et al*, 2001).

#### (b) Multi-Criteria

For this approach, selection and evaluation of contractors is based upon multiple criteria, sometimes by more than one interested party to the project. Decision analysis is concerned with situations in which decision-makers have to choose among several alternatives  $A_1$ ,  $A_2$ ...  $A_3$  through the consideration of a common, but differently scored, set of attributes (criteria) for each alternative. Traditionally, the criteria scores are manipulated in such a way as to provide a consequence describable in terms of single criterion making it an easy task for the decision-maker to choose the most desirable alternative (Hatush et al 1998).

Researchers like Zavadskas et al, (2007) have pointed out that in construction it is essential to be able to take into account the impacts of cultural, social, moral, legislative, demographic, economic, environmental, governmental and technological change, as well as changes in the business world on international, national, regional and local real estate (construction) markets. Evaluation of contractors based on multi-attributes is becoming more popular and is, in essence, largely dependent on the uncertainty inherent in the nature of construction projects and subjective judgment of decision-makers.

Multi-attribute decision-making is defined by processes that involve designing the best alternative or selecting the best one from a set of alternatives, that has the most attractive overall attributes, and that involves the selection of the optimal alternative, handled via preference models (French *et al* 1998)

# 2.9 SOURCE OF FUNDING FOR PROJECTS IN DISTRICT ASSEMBLIES

The main source of funding projects in the District Assemblies are District Assembly Common Fund (DACF), District Development Facility (DDF), Local Service Delivery and Governance Program (LSDGP) and donor funds through which government transfers funds to assist the District Assemblies for development.

It has been argued that the Internally Generated Fund (IGF) situation of most District Assemblies (DAs) could be improved significantly if the DAs could adopt a pro-active attitude towards internal revenue mobilization as well as the institution of credible revenue accounting procedures to support developmental projects of the DAs. (Source: Akuapem North District Assembly)

# 2.10 THE ENVIRONMENT OF PROJECTS

The environment of a project is separated into internal and external environment. The internal environment of the project is affected directly by factors which affect the implementation process and hence the project performance. These are essentially contingency factors in nature and have been classified into factors related to project; the project manager or consultant, project team, the client's organization. These factors impact directly on the action, expectation and learning which shape the management of the project. (Gyadu-Asiedu William 2009)

External environment can be the political, economic, socio-culture and technological (PEST) context in which the project is executed. According to Jaselskis et al (1998) bidding considerations, in developing countries makes it clear that governments in developing countries have a direct influence on construction in both the public and private sector through their behavior, policies and legislations.

As in many other countries, government is the major construction client in Ghana (Eyiah et al 2003). Hence it is hard to disconnect the impact of government and politics on construction in Ghana. For instance, a contractor who is not registered with the government ministries responsible for works and housing or roads and transport and even the District and Municipal Assemblies will not be entitled to the award of any government project or contract. Government policies in areas of housing, economics, environment and spatial planning are discussed as factors affecting sustainable development and construction and in many cases having direct implications on the construction industry and related developmental issues. These policies are concerned with alleviation of poverty, employment creation, capacity building, quality of environment, etc., but whether methods adopted to enact these policies enhance the objective of sustainable construction is debatable. This situation is compounded by the lending policies of the International Monetary Fund (IMF) and the World Bank, coupled with structural adjustment, which have had considerable impact on the construction industry. The policies advocate for reduction in public spending and restructuring of the public sector and privatization of assets. The process has created unemployment in certain sectors with the construction sector, among other sectors, needing to absorb some of this labour force (Adebayo 2000).

William Gyadu-Asiedu (2009) opines that construction process is associated with known impact on society either positive or negative. This could be number of population affected, and type of communities and institutionalized structures affected, type of community and social resources affected. In a country where most of the land is still vested in stools, government's intention for undertaking projects could be greatly

supported or seriously frustrated by the social and cultural environment shaped by traditions and traditional rules of the project location.

Economically, loss of farming lands and farm produce of the inhabitants in the project areas could affect their means of livelihood. The increase in population could increase the market size for their produce. Construction activities can result to archaeological finding and minerals which could be sold. The project could also offer employment to the local people thus improving their purchasing power and standard of living.

#### 2.11 BENCHMARKING

This is a systematic process of measuring and comparing an organizations performance against that of other similar organizations in key business activities. The lessons learned from other companies can be used to establish improve targets and to promote changes in the organization. Benchmarking process can create a fertile ground for ideas, but only in a receptive environment. Companies that share good practices and compare their performance against others benefit most. Recently industry groups in several different countries have initiated benchmarking programs focused mainly on construction performance measures (usir.salford.ac.uk/id/e[print/583 accessed on March 13<sup>th</sup> 2012).

In conclusion, performance measurement is an integral part of business management. By championing key project aims, managers are more likely to achieve success. But the only way knowing whether those goals being delivered is by identifying indicators of their success and using them to keep an eye on the way the project is performing.



# CHAPTER THREE METHODOLOGY

# 3.1 INTRODUCTION

In this chapter, the research methodology presented the research design, population of the study, sampling techniques, research instrument, administration of the research instrument and data analysis plan.

# 3.2 PROFILE OF THE AKUAPEM NORTH MUNICIPALITY

The Akuapem North Municipal Assembly (ANMA) is one of the sixteen administrative Municipalities of the Eastern Region with its capital at Akropong-Akuapem. It is located in the South-Eastern part of the Eastern Region and is bounded in the North by the Yilo Krobo Municipality, North-West by the New Juabeng Municipality, South-West by the

Akuapem South District, Aburi and on the West by the Suhum-Kraboa Municipality. The Municipality is situated on the Akuapem-Togo range with a general altitude of between 381m and 487 m with the highest peak reaching 500m. The District was established in 1988 by Legislative Instrument (LI) 1430, until then, it was part of the former Akuapem District Council which was established in 1975. The Akuapem North District Assembly was one of the District Assemblies which was upgraded to Municipality in accordance with Legislative Instrument (LI) 2041 and gazetted in March 9<sup>th</sup> 2012.

The total population of the Municipality stood at 136,483 according to the 2010 Population and Housing Census (PHC) with a male population of 64,028 and a female population of 72,455. The Staff strength of the Municipal Assembly stands at 141, comprising 80 males and 61 females.

The Mission Statement of the Assembly is; "The Akuapem North Municipal Assembly exists to improve upon the living conditions of the people through effective and efficient mobilization and utilization of resources with particular reference to community participation".

# 3.3 THE POPULATION OF THE STUDY

A population is considered to be any group of people, events or things that are of interest to the researchers and that they wish to investigate (Sekeran, 2000).

It is for the benefit of the population that researches are done, a population is usually a well-defined collection of individuals or objects known to have similar characteristics. All individuals or objects within a certain population usually have a common binding characteristics or trait. Usually, the description of the population and the common binding characteristics of its members are the same.

The Akuapem North Municipal Assembly has almost all the departments represented in the Assembly. These decentralized departments take care of activities within the municipality that fall within their scope of operations. These departments are Finance, Works, Administration, Stores, Internal Audit, Planning and Budget Unit, Information Service Department, Agric, National Service, Town and Country Planning, Births and Deaths, Social Welfare, Co-operatives, Non-Formal Education, Environmental Health, National Disaster and Management Organization (NADMO), Parks and Gardens. These departments contribute to the running of the Municipality as a whole. The population of workers in the Akuapem North Municipal Assembly is 141.

Registered Contractors in the Akuapem North Municipality are grouped into roads, general building works, electrical works, plumbing works, drilling of boreholes stationary suppliers and the like according to the type of work they undertake. The researcher focused on projects undertaking by the building contractors. The populations of registered building contractors were fifty (50). As at the time this research was being conducted, the number of active building contractors on projects was fifteen (15). Projects undertaking were, construction of classroom blocks office and stores, KVIP, markets stalls, clinics, Area Council offices etc. The researcher would concentrate on ongoing and completed projects.

**Table 3.1 Population of the study** 

DEPARTMENT	NUMBER
FINANCE	8
WORKS	11
ADMINISTRATION	10
STORES	1
INTERNAL AUDIT	2

PLANNING	2
INFORMATION SERVICE	6
AGRIC	40
NATIONAL SERVICE	2
TOWN PLANNING	5
BIRTHS AND DEATHS	2
CO-OPERATIVES	2
SOCIAL WELFARE	2
NON-FORMAL EDUCATION	20
NADMO	12
PARKS AND GARDENS	1
ENVIRONMENTAL HEALTH	15
TOTAL	141

Source: Central Administration Akuapem North District Assembly

### 3.4 THE SAMPLE USED IN THE STUDY

A sample is a subset of the population in question and consists of a selection of members from the particular population (Sekaran, 2000). Sampling is described as the selection of a proportion of the total number of units of interest for the ultimate reason of being able to draw general conclusions about the total number of units (Parasuraman, 1986).

The concept of sample arises from the inability of the researchers to test all the individuals in a given population. The sample must be representative of the population from which it was drawn and it must have good size to warrant statistical analysis. The main function of the sample is to allow the researchers to conduct the study to individuals from the population so that the results of their study can be used to derive conclusions that will apply to the entire population. It is much like a give-and-take process, the

population gives the sample and it "takes" conclusions from the results obtained from the sample.

The target of the study were local contractors whose works were looked at, and selected staff of the Municipal Assembly who dealt with the contractors like finance, central administration, planning, internal audit and works department.



Table 3.2 Sample used in the study

TARGET GROUP	NUMBER	RESPONDENT
ACTICTIVE CONTRACTORS	15	15
FINANCE	8	8
WORKS	15	15
ADMINISTRATION	10	5
PLANNING	2	2
AUDIT	2	2
TOTAL	52	47

Source: Field Work, 2012

# 3.5 SAMPLING TECHNIQUES

The non-probability sample was adopted in the selection of the sample from the population. Non- probability sampling is a sampling technique where the samples are gathered in a process that does not give all the individuals in the population equal chances of being selected. The purposive sampling procedure was adopted in getting the sample out of the population. The purposive sampling was used by the researcher to choose the sample based on whom the researcher thinks would be appropriate for the study; Purposive sampling is primarily used when there are a limited number of people with expertise in the area being studied. The purposive sampling technique was therefore adopted to select the sample size.

# 3.6 ADMINISTRATION OF THE RESEARCH INSTRUMENT

The researcher informed the respondents two weeks prior to the administration of the questionnaire and interview guide. The questionnaires were distributed to the respondents selected for this research work. However, contrary to the expectations of the researcher, the questionnaires could not be answered and returned to the researcher on the same day they were distributed. The researcher was then given a week to come for the answered questionnaires.

It took two weeks and four extra days to be able to retrieved the questionnaires from the respondents. Out of the thirty-two questionnaires distributed to the respondents, twenty-five were retrieved. With the interview guide, the researcher was able to interview thirteen local contractors out of the fifteen targeted.

# 3.7 THE RESEARCH INSTRUMENT

The main instrument used in the collection of data for the study was the questionnaire and an interview guide. A questionnaire is a data collection technique or an instrument which involves the preparation and use of series of questions (both verbal and written) to gather information on a subject from a target group. The researcher used unstructured questions or open-ended questions, structured or close-ended questions as well as a four point Likert scale where respondents were asked to rank, as excellent, good, satisfactory and unsatisfactory. The unstructured or open ended questions allow respondents to answer questions in their own way or words. With the structured or close ended questions, all questions and answers were specified.

Interview guide were designed for the local contractors; the interview guide for the local contractors had fifteen questions for respondents to answer. The interview guide had five open-ended questions and eleven closed-ended questions. This was read out to Local Contractors to give their response. Eighteen questionnaires were designed for department who work with the contractors. Five open ended questions, one four point likert scale question and twelve close ended questions

### 3.8 SOURCE OF DATA

There are basically two sources of data for this research work- the primary data and the secondary data.

A **primary source** is an original object or document, the raw material or first-hand information. Primary sources include historical and legal documents, eyewitness accounts, results of experiments, statistical data, pieces of creative writing, and art objects. In the natural and social sciences, primary sources are often empirical studies; research where an experiment was done or a direct observation was made. For this

research work the primary data was the information gotten from the questionnaire and interview guide.

**Secondary Data-**This is the data that has been collected and collated by another person or organization other than the researcher himself. For the purpose of this study, the secondary data the researcher relied on included various literature on the topic under research, the monitoring and progress report on project, inspection report, list of local contractors of the Municipal Assembly, Tender system, sources of funding for projects, Population and Housing Census Figures.

#### 3.9 RESEARCH DESIGN

According to Allen and Babbie (2001), descriptive research seeks to portray accurately the characteristics of a population. Amedahe (2002), also opines that in descriptive research, accurate description of activities, objects, processes and persons is the objective. Descriptive research refers to a research which specifies the nature of a given phenomena. It determines and reports the way things are. Descriptive research thus involves collecting data in order to test hypotheses or answer research questions concerning the current status of the subject of the study (Gay 1992).

Wuersma (1991), is of the view that descriptive survey is also used because it specifies the nature of a given phenomena and reports things the way they are. In this study the researcher does not manipulate variables, data is collected under natural settings to answer the research questions which are geared towards 'determining the status quo of sociological and psychological variables as they occur in natural settings'. Also, the descriptive survey is used because condition and events already exist and there is no intervention in terms of treatment to experimental groups. Furthermore, variables and

procedures are described as accurately and completely as possible in descriptive survey designs. This makes it possible for the study to be replicated by other researchers.

Fraenkel and Wallen (2000), explain that, a descriptive survey involves asking the same set of questions often prepared in a written questionnaire to a large number of individuals. Thus, descriptive survey is directed at determining the nature of a situation as it exists at the time of study. It helps identify conditions present and points out future needs. Surveys also provide a lot of information from a large sample of individuals from which generalization could be made about the population. In addition, there are several ways of drawing a representative sample in a descriptive survey design. Both probability and non-probability sampling methods can be used to draw representative samples for the study.

Finally, descriptive research is purposely used to describe, observe and document aspects of situation as it naturally occurs. It sometimes, serves as a starting point for hypothesis generation or theory development. The researcher realized that the descriptive research studies will aid the researcher to organize and present information systematically on "An Assessment of the performance of local contractors on government projects"

#### 3.10 DATA ANALYSIS

Data collected were edited and coded. This was done to ensure consistency and uniformity in the processing of the data. The data was analyzed using computer software called Statistical Package for Social Science (SPSS 16) and Microsoft Excel. Frequencies and percentages were used in the analysis and the result represented in tables, graphs and charts.

#### **CHAPTER FOUR**

# DATA PRESENTATION, ANALYSIS AND DISCUSSION

#### 4.1 INTRODUCTION

This chapter of the research deals with presentation of the raw data collected by the researcher by means of questionnaires and interview guide. The researcher summarizes the data using Frequency or Statistical Tables. The researcher, at this stage of the study carefully examined and described the data in relation to the objectives of the study. Data was also interpreted at this phase of the study. Out of the thirty-two questionnaires sent out to elicit responses from the staff, the researcher was able to retrieve twenty-five of them representing 78.2% of the sample size. These twenty-five, have been used for this analysis. Also thirteen local contractors representing 86.7% of the sample size out of fifteen interviewed views were analyzed.

# 4.2 QUESTIONNAIRE FOR ASSEMBLY STAFF

# 4.3 WORK EXPERIENCE

In order to find out how long the selected workers for this study at the assembly have been working in their various positions, the researcher, in the questionnaire required from them, their working experience. Out of the 25 respondents 10, representing 40% have been working for the assembly for 5 years. Only one respondent, representing 4% had worked for 15 years for the assembly. It could be seen from the data that majority of the workers have more working experience since only 7 respondents had at most 4 years working experience. This could mean that majority of the respondents had knowledge about the Municipal Assembly's contracts and contractors. This also indicates that data collected from the respondents, all other things being equal, will give a true reflection of the performance of the local contractors' work in terms of projects for the Akuapem North Municipal Assembly. Table 4.1 below presents how long respondents have been working for the Akuapem North Municipal Assembly.

**Table 4.1 Work Experience** 

No. of years of work in the Assembly	Frequency	Percent
Three years	5	20
Four years	4	16
Five years	10	40
Six years	3	12
Seven years	2	8
Eight years	0	0.0
Nine years	0	0.0
Fifteen years	1	4
Total	25	100

# 4.4 LOCAL CONTRACTOR'S CAPACITY AND EXPERIENCE

The aim of this study is to assess the performance of local contractors in the Akuapem North Municipal Assembly. According to Odeh and Battaineh, (2002) "In order to have a

successful project, it should be guaranteed by some means that all participants are experienced and trained to do the project" it matters what kind of network is conducting the work. To do this, respondents in the District Assembly were asked to state whether the local contractors to whom the Municipal Assembly awards contracts have the capacity and expertise to undertake the projects. Respondents were to respond to this item by ticking either "Yes" or "No".

The table 4.2 below summarizes the responds.

**Table 4.2 Local Contractors Capacity and Expertise** 

54
34
42
4
100

Source: Field Survey, 2012.

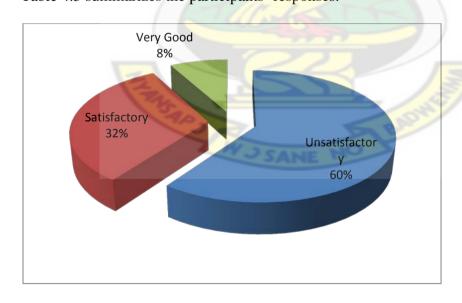
From table 4.2 above it could be seen that majority 54% of the respondents stated that the local contractors dose not what it takes, that is, all resources and technical competence to undertake a project to achieve a desired quality. However, 42% of respondent were of view that, the local contractors had some capacity and expertise, to undertake a project of a quality standard.

# 4.5 LOCAL CONTRACTORS PERFORMANCE

According to Kagioglou et al. (2000) construction firms use performance measurement to judge their project performances, both in terms of the financial and non-financial aspects

and to compare and contrast the performance with others in order to improve programme efficiency and effectiveness in their organizations. The Akuapem North Municipal Assembly awarded a lot of projects, some of which have been completed and others are ongoing.

To assess the local contractors performance with regards to their various projects awarded them, respondents in the Municipal Assembly were asked to state their personal assessment of the projects. Participants were to respond by ticking; on the Likert scale whether the completed or ongoing projects were "very good", "satisfactory" or "unsatisfactory". The study revealed that the local contractors who undertook the Municipal Assembly's projects perform unsatisfactory, as 60% of the respondents stated "unsatisfactory" while the remaining 32% choose "satisfactory" whilst 8% representing 2 of the respondents indicated that they perform very Good. The two categories on the likert scale all indicate unfavourable comments about the contractors' performances. Table 4.3 summarizes the participants' responses.



**Figure 4.1 Local Contractors Performance** 

Source: Field Survey, 2012

# 4.6 IDENTIFICATION OF ANY WEAKNESSES OF LOCAL CONTRACTORS

All the participants however stated in the questionnaire that the local contractors had some weaknesses which affected the execution of the projects. Principal among the limitations were the inadequacy of technical personnel. According to the data collected, 36% of the participants stated that the local contractors lacked the necessary equipment. The study also revealed that local contractors do not complete contracts awarded to them on time as this is revealed by 20% of the respondents.

Table 4.4 below presents participants on weaknesses of local contractors.

Table 4.3 Local Contractor's weaknesses

Weakness	Frequency	Percent
Not completing project on time	5	20
Inadequate skilled personnel	11	44
Lack of necessary equipment	9	36
Total	25	100

Source: Field Survey, 2012.

The above revelation was however consistent with the earlier findings that some of the local contractors did not have the capacity and expertise to undertake projects awarded by the Municipal Assembly. If indeed technical competencies, personnel and equipment or machinery for undertaking the projects formed part of capacity and expertise, then the researcher's assertion was true. The finding was consistent with what the remaining 44% of the respondent said.

# 4.7 MUNICIPAL ASSEMBLY'S CONTRIBUTION TO THE WEAKNESSES

The Akuapem North Municipal Assembly and the local contractors have their roles to play if the projects are to be undertaken with accuracy to meet project specifications. The researcher therefore tried to find out whether the Municipal Assembly contributes to the weaknesses of the local contractors. When asked to state whether the Assembly contributes to the weaknesses or not, 64% of the participants used in the study responded "No" whilst the remaining 36% responded "Yes". When asked to state how then Assembly contributes to the delays in completing projects, all the participants who responded "Yes" stated that the Assembly delays in paying contractors.

Table 4.4 Does the Assembly Contributes to contractors' weaknesses

Response	Frequency	Percent
Yes	9	36
No	16	64
TOTAL	25	100

Source: Field Survey, 2012.

# 4.8 MONITORING AND EVALUATION OF PROJECT

According to Steven et al. (1996), performance measurements are needed to track, forecast and ultimately control those variables that are important to the success of a project, and this has been agreed by many researchers and practitioners (Sinclair and Zairi, 1995). To ensure a credible result from the study, the researcher wanted to find out if projects awarded to local contractors were monitored and evaluated and at what stages. Participants were required to respond either "Yes" or "No".

Table 4.6 presents participants' responses.

**Table 4.5 Monitoring and Evaluation of Project** 

Response	Frequency	Percent
Yes	20	80
No	2	8
Monitor but no evaluation	3	12
Total	25	100

Source: Field Survey, 2012

The study discovered that projects are monitored and evaluated in the Akuapem North Municipal. From the table above, 80% of the participants used in the study choose "Yes" whereas 8% stated "No". The remaining 12% stated that they monitor projects but do not evaluate them to check if they met the specifications.

# 4.9 STAGES AT WHICH PROJECTS ARE MONITORED

64% of all the participants used in the study stated that projects are monitored when they are on – going, whilst 24% indicated that they monitor projects whenever the contractors ask them to do so. Yet 12% also indicated that they do monitor projects when the contractor requests that and sometimes on their own, and at any stage. Table 4.7 below summarizes participants responses in relation to stages at which projects are monitored.

Table 4.6 Stages at which Projects are monitored

Stage	Frequency	Percent
When project is on going	16	64
Upon request of contractors	6	24
Both upon request and at any stage	3	12

Total	25	100

# 4.10 MUNICIPAL ASSEMBLY'S SATISFACTION WITH PROJECT

The researcher, in order to find out whether the Assembly is satisfied or not with projects undertaken by local contractors in the Municipality, asked respondents to indicate their satisfaction by choosing either "Yes" or "No". The data showed that 72% of all the respondents stated "No" whilst the remaining 28% selected "Yes". This is an indication that projects undertaken by the local contractors are not satisfactory. Table 4.8 below summaries the Assembly's satisfaction with projects.

Table 4.7 Assembly's Satisfaction with Projects.

Response	Frequency	Percent	
Yes	7	28	
No	18	72	
Total	25	100	
Z		3	

Source: Field Survey, 2012

Majority of them pointed out that they are not satisfied with projects undertaken by local contractors, this represents 72% of the respondent. 28% indicated that they are satisfied with their works. It therefore follows from the above information that, the Municipal Assembly workers rate local contractors "unsatisfactory" since they are not satisfied with contractors' projects. The data above indicates that local contractors use inferior material and lack of technical staff hence not being able to work to specifications and hence the Assembly's dissatisfaction. Again this could mean that probably proper supervision is not

being done by the works department when a project is on-going. The main aim of this supervision is to track, forecast and eventually control those factors that affect the success of a project, and this has been agreed by many scholars and practitioners (Sinclair and Zairi, 1995) and report on the progress (PMBOK, 2008).

When asked to suggest some reasons why local contractors deviate from project specifications, 40% stated that the local contractors "Lack technical staff' 52% pointed out that local contractors use inferior materials for the project. Yet, 8% also noted that local contractors deviate from project specifications because they are not regularly monitored in the course of undertaking the project. That is, contractors are not regularly monitored when the project is on-going.

Respondents were also required to state whether the local contractors complain to them about difficulties they face in siting the projects. This was to enable the researcher find out whether those complaints were made about the challenges caused by the projects. The study revealed that 32% local contractors complained whereas the remaining 68% representing 17 said they faced no challenges in siting projects in the Akuapem North Municipal. Out of those who complained about challenges they faced in siting projects, 75% stated the land owners disturbed them for destroying farmlands whilst the remaining 25% complained that the contract sum is not enough for a successful completion of a project with the required standard especially in marshy and difficult accessible land areas. This could partly be a contributing factor to the poor performance of the local contractors. The table 4.9 below shows the causes of deviation and complaints about challenges in siting projects.

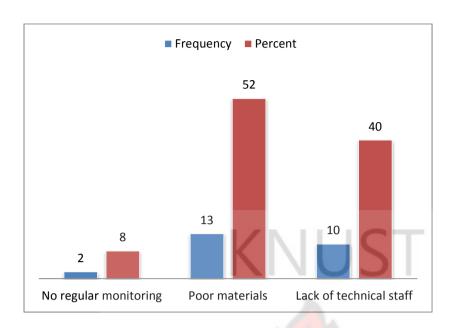


Figure 4.2 Causes of Deviation and complaints

Table 4.8 Complaints about challenges in siting Projects

Response	Frequency	Percent
Yes	8	32
No	17 SANE NO	68
Total	25	100

Source: Field Survey, 2012.

**Table 4.8.1 The Complaints** 

Response	Frequency	Percent

Destruction of farmlands	6	75
Contractor sum is not	2	25
enough		
Total	8	100

# 4.11 CRITERIA USED IN SELECTING CONTRACTORS

In order to find out how competent the contractors were to undertake the Assembly's projects the researcher asked participants to state the criteria they used in selecting the contractors. The study discovered that contracts in the Assembly were awarded to lowest price bidders. When required to state the criteria used, 72% of all the participants stated that they based their criteria on the lowest price bidder. Twenty percent selected "Company capacity". Yet the remaining 8% stated that they consider factors such as lowest price bidder, company capacity and technical expertise.

Table 4.9 Criteria for selecting contractors

Criteria	Frequency	Percent
Lowest price bidder	18	72
Company capacity, Technical	5	20
Expertise		
Company capacity and lowest price	2	8
bidder		
Total	25	100

Source: Field Survey, 2012.

Table 4.10 Response on whether the criterion is the best

(	68
	32
	100

Sixty-eight percent of all the participants used in the study considered this criteria as the best whilst few of considered it not the best. The Municipal Assembly workers said they were not satisfied with projects undertaken by local contractors and that these local contractors were, selected based on lowest price bidder. Local contractors were not the best to undertake the project. This means the criteria for selection was also not the best. This best explains why 52% of the Municipal Assembly workers declared that local contractors deviate from project specification because they lack technical staff. The study earlier on revealed that 32% of the workers attributed poor quality projects to the use of inferior materials by local contractors. This means that the contractors were not the best for the project.

# 4.12 MAIN SOURCES OF FUNDING FOR THE PROJECT IN THE AKUAPEM NORTH MUNICIPAL ASSEMBLY

Participants used in the study were asked to state any source of funding for Municipal Assembly projects. The sources identified included the District Assembly Common Fund, District Development Facility and local service and Governance program.

Participants were further asked if funds were always available and accessible to contractors. The study showed that funds were not readily available and accessible to

local contractors to undertake projects conveniently. This confirms Owusu's finding in 1999. Owusu (1999) identified two main factors affecting contractor performance in Ghana. The two factors were Financial and Managerial Capacities of the firm. This could probably be a variable affecting the choice of materials. This probably caused local contractors to use inferior goods. They further indicated that there was always a delay in releasing funds.

# 4.13 INTERVIEW GUIDE FOR LOCAL CONTRACTORS

As stated earlier on in the literature review, construction activities and its output form an integral part of a country's national economy and industrial development. The construction industry can mobilize and in point of fact utilize local and human material resources in the development and maintenance of housing and infrastructure to promote local employment and improve economic efficiency (Anaman et al 2007). Because the significance of the construction industry, the quality of performance and negative perceptions of Ghanaian Contractors has become a great concern to the Government and general public at large (Taskforce Report, 2007). In this regard, a five member taskforce was therefore set up by the Ministry of Finance and Economic Planning (MOFEP) on October 10, 2007 to study the situation, make recommendations and submit its findings. Out of the fifteen respondents targeted for this study, only thirteen of them were available for the interview. The analysis is therefore based on the responses of remaining thirteen participants interviewed.

### 4.14 WORK EXPERIENCE

The study showed that most of the local contractors have been undertaking projects for the assembly for at least six (6) years. The data revealed that only 23% of the local contractors have been undertaking project for the District Assembly between one (1) and five (5) years now. Coupled with the number of years the staff have been working with the Assembly 68% have at least worked with the Assembly for at least five years, it could be deduced that the workers have worked with the local contractors for quite a number of years now. It could also mean that the contractors have undertaken at least one project for the Assembly before. Granting these assertions would bring to the fore, the question "why should the Assembly keep awarding contracts to contractors who outputs are not satisfactory?" Is it because they are the lowest price bidders?

**Table 4.11 Work Experience** 

Work Experience	Frequency	Percent
1-5 Years	3	23
6-10 Years	6	46.2
Above 10 Years	4	30.8
Total	13	100

Source: Field Survey, 2012.

# 4.15 DURATION OF PROJECTS UNDERTAKEN BY THE LOCAL CONTRACTORS

The data revealed that most of the projects were scheduled for six month. It came to light that 54% of all the contractors used in the study were supposed to have completed the contracts awarded them in six months. When asked how long it took contractors to complete the projects, 23% indicated that they used six months. 31% used one year. The same percentage also used two years. This confirmed the finding from the data collected from the Assembly's workers (36% said contractors delay in completing projects).

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**Table 4.12 Duration of project** 

Duration of project	Frequency	Percent
	1	
Six Months	7	54
One Year	2	15.4
Two Years	2	15.4
Three Years	1	7.6
Four Years	1	7.6
Total	13	100

Source: Field Survey, 2012

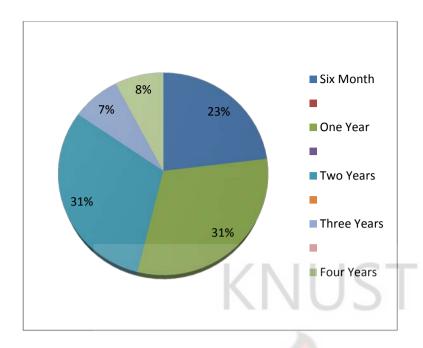


Figure 4.3 How long did it take you to complete the project?

Source: Field Survey, 2012

# 4.16 USE OF SKILLFUL PERSONNEL BY CONTRACTORS

In order to ascertain the validity of information provided by workers in the Municipal Assembly (with regards to the competency of the labour they use), local contractors were asked to state whether they have skillful personnel or not. All the participants responded "yes" to the item.

This could probably be attributed to the reason why 32% of the participants stated that the use of inferior resources is rather their weakness than any other variable.

# 4.17 ACCESS FOR FUNDS FOR PROJECTS

When asked whether local contractors were able to access funds easily, 84.6% said "No" as shown in table 4.13 below. This was enough to conclude that funds were not readily available and accessible to local contractors. The data from the Assembly confirms this finding. The single most important reason given for not being able to access fund for project is "no funds available". The local contractors further stated that they contract

loans from the banks to undertake the projects with its own attending problems. This inadequacy of funds could be the cause of using inferior goods to do projects in the Akuapem North Municipal. This could also explain why some contractors delayed in completing the projects.

**Table 4.13 Access for Funds for Projects** 

Response	Frequency	Percent
Valid Yes	2	15.4
No	11	84.6
Total	13	100

# 4.18 MONITORING OF PROJECTS

The data collected from the local contractors confirmed that officials from the Assembly monitored the projects when projects were on-going. The respondents said the officials visited the project site either on their own but sometimes the contractors invited them. From the table below 46.2% of the respondents said all contractors indicated that at the completion of a project they are invited for inspection and for payment to be effected.

**Table 4.14 Monitoring of Project** 

	Frequency	Percent
Sometimes they come on their own and Sometimes they invite them	6	46.2
They come on their own	3	23.1
They invite them	4	30.8
Total	13	100

# 4.19 CRITERIA USED IN SELECTING CONTRACTORS IN THE AKUAPEM NORTH MUNICIPAL ASSEMBLY

It was found out that contractors were selected based on lowest price bidder. The contractors also indicated that their selection was based on lowest price: Seventy-six point nine percent selected "lowest price bidder". It could be argued, therefore, that since local contractors knew what criteria were used to award them the contract, they could always reduce the cost of potential projects and hence continue to use inferior material.

Table 4.15 Criteria for contractor selection

310	Frequency	Percent
Lowest price bidder	10	76.9
Missing Value	3	23.1
Total	13	100

#### 4.20 CONSTRAINTS OF PROJECTS

The study showed that all contractors faced some challenges. When asked to state the challenges, it came out that most contractors faced delayed payment which results in delayed project completion, high interest and exchange rate among others. To confirm this, the Municipal Assembly's official stated that contractors complained about the The finding was however, consistent with what Owusu (1999), problems faced. identified as two main factors affecting contractor performance in Ghana. The two factors were Financial and Managerial Capacities of the firm. Under the financial factors he mentioned that contractor's financial stability in terms of access to credit was questionable and that has gone a long way to affect their performance over the years. It also agrees with the findings of William Gyadu-Asiedu (2009) which say, construction process is associated with known impact on society either positive or negative. could be number of population affected, and type of communities and institutionalized structures affected, type of community and social resources affected. In Ghana where most of the land is still vested in stools, government's intention for undertaking projects could be greatly supported or seriously frustrated by the social and cultural environment shaped by traditions and traditional rules of the project location.

### **CHAPTER FIVE**

# SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5.1 INTRODUCTION

The study was guided by some specific objectives. Specifically, the researcher sought to find out whether local contractors had the technical capacity to undertake project for the Akuapem North Municipal Assembly, determine whether there were measures put in place to monitor the quality of projects undertaken by local contractors, determine whether the environment of the project affect it, find out the criteria used for selecting

local contractors; and determine the sources of funds for projects executed by local contractors. Chapter four look at the major findings of the study in relation to the objectives. Conclusions were drawn based on the findings in relation to the objectives. Finally, proposed some recommendation for the Municipal Assembly.

#### 5.2 SUMMARY OF FINDINGS

#### To find out whether local contractors have the technical capacity

It was found out that, most local contractors who execute projects for the Municipal Assembly lack the technical capacity and competence to undertake projects. It was found out that, most local contractors do not complete projects on time due to challenges they encounter like delay in payment by the Assembly. However, the study also revealed that the contractors use inferior materials for projects.

To find out whether there are measures put in place to monitor the performance and quality of projects undertaken by local contractors in the Akuapem North Municipal Assembly.

Contracts awarded by the Assembly were monitored at every stage of the project. Projects were monitored on request by the contractor on the project. This was done by the monitoring team from the Assembly. However, they did not state the procedure for measuring the success of the project. This could mean that they just visit the project sites to look at what was going on and not to monitor them. With regards to local contractor performance, 60% of the Municipal Assembly's officials rated them "unsatisfactory" and 32% rated them as satisfactory the remaining 8% rated them "very good". The research therefore revealed that the performance of local contractors was unsatisfactory. It follows

from the forging that the Assembly was not satisfied with the local contractors' performance. The study indicates that the Assembly was not satisfied with projects executed because the contractors use inferior materials.

# To find out whether the project environment of the project affect the execution of the project?

Only 32% complained about sitting of the project. Of all those who complained 75% found the problem of land owners complaining about destruction of their farmlands whilst the remaining 25% complained about the contract sum not being enough.

## To find out the criteria used in selecting the contractors for projects?

The study showed that the Assembly based their criteria on lowest price bidder. 57.9% considered this criterion to be the best. However, it could be argued that if those who awarded the contracts were not satisfied with projects and the performance of these local contractors is not encouraging, then it means the criteria used is probably not the best. This is in consistent with the views of (Nerija et al 2006) which says the selection of the lowest price bidding contractor is one of the major causes of the poor performance of the construction project.

#### To find out the sources of funds for projects in the Municipality.

Funding for the projects according to the Assembly's officials and the local contractors is by the District Assemblies Common Fund, District Development Facility and Local Service Delivery and Governance Program. It also came to light that there were difficulties in releasing and accessing funds for projects. As a result some contractors use their own fund to complete projects as they await payment. This causes delays in completing most projects. The study revealed that the delay in releasing funds for payment to contractors caused them to probably used inferior material to execute project.

#### 5.3 CONCLUSION

In conclusion, the research had shown that most local contractors do not have the technical capacity to undertake projects. The Assembly played a major part in the timing of project schedules and the quality of the project as the Municipal Assembly delayed in releasing funds for paying contractors. The study also showed that even though officials from the Assembly visit projects sites, they do not use performance measurement techniques and skills to guide the contractors. This therefore contributes to the poor quality of projects undertaken by local contractors.

It was also found out that the project siting of the project do not affect the project executed by majority of the local contractors. However, they faced challengers like high interest rate and inflation as a result of delayed payment. With regards to criteria used in selecting contractors, the research pointed out that the Assembly used lowest price bidder. Finally, the sources of funds for projects in the Akuapem North Municipal Assembly include District Assemblies Common Fund, District Development Facility, Local Service Delivery and Governance Program which presupposes that the Assembly's internally generated funds was not strong enough to support building projects in the Municipality.

#### 5.4 RECOMMENDATION

Despite the attempts by the Assembly to improve the quality of projects executed in the Municipality, there is still much to be done. The researcher therefore puts forward the

recommendations below to help improve the performance measurement skills of the officials and also improve the quality of projects.

➤ One of the recommendations was that the Assembly should consider seriously other factors such as company capacity, technical competencies in their criteria for selecting local contractors than always looking at the lowest price bidder. Local contractors therefore need to enhance their capacity for carrying out projects to bring out their best.

An award scheme could also be put in place by the Municipal Assembly for contactors who perform exceptionally well. This will motivate others to also emulate same.

The Municipal Assembly should try as much as possible to make prompt payment to the local contractors as that causes delay in project execution and even quality of the end product.

Local contractors should use artisans who are skillful in the construction industry to enhance the quality of the projects executed.

#### **REFERENCES**

Adams, C. A., Kennerly, M. and Neely, A. D. (2002) The performance Prism Perspective, *Journal of Cost management*, 15(1), 7-15

Adebayo A. A and Adebayo P. (2000) 'Sustainable Housing Policy and Practice-reducing constraints and expanding horizons within housing delivery'. Paper presented in 2nd South African Conference on Sustainable Development in the Built Environment. 23-25 August, Pretoria: South Africa

Ahadzie, D. K., Proverbs, D.G and Olomolaiye, P. (2007) Critical Success Criteria For Mass House Building Projects In Developing Countries. *International Journal of project management*.

The Akuapem North Municipal Assembly, staff strength 2012

Anaman, K. A. and Amponsah, C. (2007) Analysis Of The Causality Links Between The Growth Of The Construction Industry And The Growth Of The Macro Economy In Ghana, Institute of Economic Affairs, Accra, Ghana.

Ang, G.; Groosman, M.; Scholten, N. P. M. (2005), *Dutch Performance-Based Approach To Building Regulations And Public Procurement*, Business Research & Information, Vol. 33, Issue 2, pp 107–119.

Ang, A.H-S., Tang, W.H. (1984), *Probability Concepts In Engineering Planning And Design, Volume II-Decision, Risk And Reliability*, John Wiley & Sons.

Asseibey-Mensah, G.O. (2008) "Ghana's Construction Industry and Global Competition: A research Note", *Journal of Black Studies*, Sage Publication.

Branch, A. (2001). *International Purchasing and Management*. New York: Amazon Committee of Sponsoring Organizations of the Tread way Commission (1992). internal control integrated framework. [Online] available from: http://www.coso.org.[Accessed:10<sup>th</sup> May 2012]

Beatham, S. et al. (2004), KPIs A Critical Appraisal of Their Use In Construction. Benchmarking. *An International Journal*. Vol. 11 No. 1, 2004. pp. 93-117.

Bititchi, U.M: Carrie, A.S and McDevitt, L. (1998) *Integrated Performance Measurement Systems*: an audit and development guide. The TQM Magazine, 9(1), 46-53

Cheeh, H. W. et al (2001), 'Multi-Criteria Selection or Lowest Price? Investigating of UK Construction Clients' Tender Evaluation Preferences, Engineering, Construction and Architectural Management, Vol. 8, Issue 4, pp 257-271.

Cordero, R. (1990). *The Measurement Of Innovation Performance In The Firm*: an overview. Research Policy Vol. 19. Pp 185-192.

Eyiah, A K and Cook, P (2003), "Financing Small and Medium –Scale Contractors Developing Countries: a Ghana case Study, Construction Management and Economics, 21 (4), 357-367

Field, B and Ofori, G (1988) *Construction and Economic Development* – a case study. Third World Planning Review, 10(1), 41-50

Hatry, H. P. (2006) *Performance Measurement*, second edition, pp. 734 – 739.

Hatush, Z. (1996), 'Contractor Selection, using multi-attribute utility theory', unpublished thesis, Department of Surveying, University of Salford, Salford.

Holt, G.D., (1998), 'Which Contractor Selection Methodology?' *International Journal of Project Management*, Vol. 16, pp 153-164.

Jaselskis, J.E. and Talukhaba, A (1998) Bidding Considerations in Developing Countries, *Journal of construction Engineering and Management*, 125(3), 185-193

Kagioglou, et al (2001) *Performance Management in Construction*: a conceptual framework. Construction management and economics, 19(2), 85-95.

Kangari R. et al (1997) *Managing International Operations*: a guide for engineers. Architects and construction managers, USA, ASCE: 1997.

Kangari, R. et al (1992) Financial Performance Analysis for Construction Industry. *Journal of Construction Engineering and management*, ASCE, 118(2): 349-361

Kog, Y.C. et al (1999). Key Determinants for Construction Schedule Performance. *International Journal of project management*, vol.17 No.6, pp. 351-359.

Kometa, S.T et al (1994) Attributes of UK Construction Clients Influencing

Koomson, S.E. (1971). *International Purchasing Pamphlet for Polytechnic Students*. Accra: Ghana.

Milakovich M.E (1995), Improving Service Quality Achieving High Performance in the Public Sector and Private Sector. St. Lucie Press

Neely, A. D (2002) Business Performance Measurement – Theory and Practical.

Nerija B., Audrius B. (2006), *Analysis Of Criteria For Contractors' Qualification Evaluation*, Dept of Construction Economics and Property Management, Vilnius Gediminas Technical University, Saulėtekio al. 11, LT-10223 Vilnius, Lithuania

Oakland J.S. and Aldridge A.J. (1995), Quality Management in Civil and Structural engineering Consulting. *International Journal of Quality Reliability Management* 

Odeh A.M. and Battaineh H.T, (2002), 'Causes of Construction Delay: Traditional Contracts', *International Journal of Project Management*, Vol. 20 No.1, pp 67-73.

Ofori, G. (2000) "Challenges of Construction Industries in Developing Countries: lessons from various countries" Conference Paper, challenges facing construction industries in Developing Countries 2<sup>nd</sup> International Conference on Construction in Developing Countries: Challenges facing the construction industries in developing countries 15-17 November 2000, Gabarone, Botswana.

Owusu- Adade, K (1995) *Towards Increased Housing Delivery in Ghanaian Cities*: The Land Factor, Journal of the Building and Road Research Institute, Vol. 3 (1 &2), June/Dec, pp. 12-14.

Parasuraman, A. (1986). *Marketing Research*. Reading: Addison-Wesley Publishing company.

Pillai, A. S. Joshi, A., Rao, K. S. (2002), "Performance Measurement of R&D Projects In A Multi Projects, Concurrent Engineering Environment". *International Journal of Project Management*, Vol. 20, pp 165-177

PMI, (2008), *A Guide to the Project Management Body of Knowledge* 4<sup>th</sup> Ed, Global Standard, Newtown Square, Pennsylvania 19073-3299 USA

Republic of Ghana (2003), *Public Procurement Act* 2003.Act 663.Section15and21Accra:

Republic of Ghana. Statistical Service. (2010) *Population and Housing Census*. Accra. Ghana Publishing Corporation.

Sekaran, U. (2000). *Research Methods for Business* (3rd Edition). New York: Hermitage Publishing Services.

Sinclair, D. and Zairi, M. (1995) "Effective Process Management through Performance Measurement. Part III-an integrated modedl of total quality-base performance measurement", *Business Project Reengineering and Management Journal*, Vol. 1 No.3pp50-65

Smallwood J. and Rossouw J. (2008). *The Implementation of Quality Management Systems in South African Construction*. Proceedings of the Royal Institution of Chartered Surveyors Construction and Building Research Conference (*COBRA*), held at Dublin Institute of Technology, Republic of Ireland, 4-5 September, 2008.

Takim, R and Akintoye, A. (2000), "Performance Indicators for Construction Project Performance. In: Greenwood D (Ed.), 18<sup>th</sup> Annual ARCOM Conference, 24 September 2002, University of Nurthumbria. Association of Researchers in Construction Management, Vol.2, pp545-55.

Task Force Report, (2007) Improving the performance of the Local Construction Industry.

The Ghanaian Times, (2009). *The Construction Industry – Challenges And The Way Forward*, Thursday, March 12, 2009, pp.9.

The Ghanaian Times, (2011). Why Local Contractors Cannot Compete 22<sup>nd</sup> August 2011 page 10.

William Gyadu-Asiedu (2009), the *Elements in Sustainable Construction Industry* International Journal Building Criteria and Indicators for Performance Assessment

Xiao, H and Proverbs, D (2003) *Factors Influencing Contractor Performance*: an international investigation, Engineering, Construction and Architectural Management, Vol. 10 (5), pp. 322-332.

Zavadskas, E. K.; Kaklauskas, A., (Ed.), (1996), Determination Of An Efficient Contractor By Using The New Method of Multi-Criteria Assessment, *International Symposium for "The Organization and Management of Construction"*. Shaping Theory and Practice. Vol. 2: Managing the Construction Project and Managing Risk. / edited by D. A. Langford and A. Retik CIB W 65; London, Weinheim, New York, Tokyo, Melbourne, Madras. London: E and FN SPON 2, pp 94-104.

#### **APPENDIX I**

#### **INTERVIEW GUIDE**

## KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY INSTITUTE OF DISTANCE LEARNING

I would be grateful if you could help me elicit information on **Assessing The Performance of Local Contractors on Government Project**, in the Akuapem North

Municipal Assembly. Any information provided will be treated confidentially and be used for academic purpose only thank you.

Please tick or fill the blank spaces where appropriate

#### Section A -Bio Data

1.	Gender Male [ ] Female [ ]
2.	Marital Status: Married [ ] Unmarried [ ] Divorced [ ] Widow [ ]
	Widower [ ]
3.	Age of respondent: 20-29 [ ] 30 – 39 [ ] 40 – 49 [ ] 50 and above[ ]
4.	Educational qualification: Diploma [ ] First degree [ ] Master degree [
	others
Sec	ction B
1.	How long have you been in this industry? (a) six months (b) one year (c) two
	years (d) three years (e) others
	specify
2.	What was the duration given for the completion the project? (a) six months (b)
	one year (c) two years (d) three years (d) four years (e) others
	specify

3.	How long d	id it take you	to complete the	ne project? (a) on	e year (b) two	years (c)
	three	(d)	four	years	(e)	other
	specify					
4.	Do you have	e skillful pers	sonnel on the jo	bb? Yes/No		
5.	If no why					
		• • • • • • • • • • • • • • • • • • • •				
	•••••			JSI		
6.	Are the equi	ipment you a	re using to exec	cute the project in	good standing?	Yes/No.
7.	If no why					
		• • • • • • • • • • • • • • • • • • • •		<u></u>		
	•••••					
8.	Were you al	ble to access	funds as and v	vhen you needed t	to the	next stage
	of the project	ct? Yes/No				
9.	If	no,	what	reason	was	given?
	•••••					
10.	Do you som	netimes have	to <mark>use your o</mark> w	n funds to execute	project to enha	ance early
	completion?	Yes/No				
11.	. Do officials of the Assembly visit the project site when the project is on-going?					
	Yes/No					
12.	Do you invi	te them or the	ey come at thei	r own accord?		
13.	What criteri	a did the DA	base on to awa	ard you the contra	ct (a) lowest pr	ice bidder
	(b) technical	l competence	(c) capacity of	f company (d) the	most responsib	le bidder

14.	Was the project constrained by any environmental factors like economic, social,
	political or technological? Yes/No
15.	If yes which of the environmental constraints mentioned did you experienced?
	KNUST
16.	What is the source of funding for the project you are executing? (a) Internally
	Generated Fund (b) Common Fund (c) District Development Facility (d) Local
	Service and Governance Program

#### **APPENDIX II**

### **QUESTIONNAIRE**

## KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY INSTITUTE OF DISTANCE LEARNING

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Municipal Assembly. Any information provided will be treated confidentially and be used for academic purpose only thank you.

Please tick or fill the blank spaces where appropriate

### Section A -Bio Data

1.	Gender	Male [ ]	Female	[ ]	
2.	Marital Status: Ma	rried [ ] U	nmarried [	Divorced	[ ] Widow [ ]
	Widower [ ]				
3.	Age of respondent	: 20- 29 [ ] 30	<b>- 39</b> [ ] 40 -	- 49 [ ] 50	and above[ ]
4.	Educational qualif	<mark>ication:</mark> Diplor	na [ ] First	degree [ ]	Master degree [ ]
	others	SAI	IE NO		
Section	on B				
1.	How long have ye	ou been working	with the Asser	mbly? (a) one	year (b) two years
	(c) years (d) four years others				
2.	What criteria do	you use to select a	a contractor to	undertake a	project in the DA?
	(a) technical expertise (b) low price bidder (c) company capacity				

3.	Do you think the criteria use in selecting a contractor for a project is the best?
	Yes/No
4.	Do local contractors have the capacity and expertise to undertake projects which
	are awarded to them? Yes/No
5.	What is your overall rating of the local contractor's performance? (a) excellent (b)
	very good (c) satisfactory (d) unsatisfactory performance
6.	Do you identify any weaknesses in the local contractors? Yes/No
7.	If yes what is it?
0	
8.	Does Assembly contribute in any way to weaknesses of the local contractor? Yes/No
8. 9.	Does Assembly contribute in any way to weaknesses of the local contractor? Yes/No  If yes what is
	If yes what is
	If yes what is
9.	If yes what is it?
9.	If yes what is it?  Do you monitor and evaluate project to ensure a project is in line with
9.	If yes what is it?
9.	If yes what is it?  Do you monitor and evaluate project to ensure a project is in line with
9. 10.	If yes what is it?  Do you monitor and evaluate project to ensure a project is in line with specifications? Yes/No
9. 10.	If yes what is it?
9. 10.	If yes what is it?
9. 10.	If yes what is it?

13.	At what stage is monitoring done? (a) when the project is ongoing (b) at the
	completion of the project (c) upon request of the contractor?
14.	Did the contractor complain of any challenge in siting of the project? Yes/no
15.	If yes, what was it?
16.	What are the main sources of funding for projects in the DA? (a) Internally
	Generated Fund (b) Common Fund (c) District Development Facility (d) Local
	Service and Governance Program
17.	Are funds always available for contractors to access when they want to move to
	the next phase of the project? Yes/No
18.	If no what is the cause of the inability to access the
	funds?