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**A Study into Challenges and Sustenance of Small-Scale Contractors in Ghana.
(A Case Study of Tamale Metropolis)**

By

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**A Dissertation Submitted to the Department of Building Technology,
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MASTER OF SCIENCE

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DECLARATION

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

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ABSTRACT

Construction sector industry plays very enormous function in the economy and its role is so crucial for the attainment of economic, social and infrastructural facilities such as shelter and employment for the teaming youth both educated and uneducated. However, the industry is bedeviled with a lot of challenges especially new entrants and small scale contractors who desires to grow their businesses in the industry. Many small scale contractors encounter a lot of challenges to sustain and grow their businesses, capacity is thus needed in managing the business of construction. The aim of this research is to examine main challenges and constraints facing small-scale contractors with regards to training needs, identify areas it needed, and appropriate methods of operations for small scale contractors in areas of construction business management. Literature reviewed on the subject indicated that the small-scale contractor's business management is a topical one for both clients and contractors especially in developing economies. The methodology adopted was quantitative, questionnaire was distributed to 35 respondents who were small-scale contractors with D3K3 classification as well as their staff in the Tamale Metropolis and the data collected was analyzed by using Statistical Package for Social Sciences (SPSS) to obtain the challenges and needs thus rank factors. It was concluded that Lack of knowledge in Cash flow, accounting operations and technical challenge factors was the main challenges. Whiles business environment factors ranked contracts not won on merit first. Again, absence of Cash flow management System in place was ranked first in financial management difficulties for small-scale contractors. The recommendations made were that, tendering activities should be done by trained professionals, periodic training for the small scale contractor was also found to be necessary.

TABLE OF CONTENT

DECLARATION	ii
ABSTRACT.....	iii
TABLE OF CONTENT	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
ACKNOWLEDGEMENT	ix
DEDICATION	x
CHAPTER ONE.....	1
GENERAL INTRODUCTION.....	1
1.1 INTRODUCTION.....	1
1.2 BACKGROUND OF THE STUDY.....	1
1.3 RESEARCH PROBLEM	3
1.4 RESEARCH OBJECTIVES.....	4
1.5 SCOPE OF THE STUDY	4
1.6 SIGNIFICANCE OF THE STUDY	5
1.7 STRUCTURE OF THE RESEARCH.....	5
1.8 METHODOLOGY	6
CHAPTER TWO.....	7
LITERATURE REVIEW	7
2.1 INTRODUCTION.....	7
2.2 SMALL CONTRACTORS IN THE CONSTRUCTION SECTOR	7
2.3 FEATURES OF SMALL-SCALE CONTRACTORS IN GHANA.....	8
2.4 CHALLENGE DEFINED	8
2.4.1 Financial Challenges	9
2.4.1.1 Cash Flow Management.....	9
2.4.1.2 Lack of Cash.....	9
2.4.1.3 Non-Existing Payment Plan	10
2.4.1.4 Contractor Classification Problems.....	10
2.4.2 Technical and managerial	11
2.4.3 Human resource management	11
2.4.4 Nature of the work.....	12
2.4.5 Payment Issues by Clients	13

2.4.6 Political Factors	14
2.4.7 Business Environment	15
2.4.8 Bribery and corruption	15
2.4.9 Safety issues	16
2.5 THE NEED FOR ATTENTION FOR SMALL SCALE BUILDING	16
CONTRACTORS.....	16
2.5.1 Capacity building.....	19
2.6 STEPS SMALL SCALE CONTRACTORS CAN ADOPT TO SUSTAIN THEIR BUSINESS	21
2.6.1 Variation Orders.....	22
2.6.2 Analysis of the Job.....	22
2.6.3 Accounting on and off the job site	23
CHAPTER THREE.....	24
METHODOLOGY OF THE STUDY.....	24
3.1 INTRODUCTION.....	24
3.2 RESEARCH DESIGN.....	24
3.3 POPULATION	25
3.4 SAMPLE SIZE AND TECHNIQUES	25
3.5 DATA COLLECTION METHODS	26
3.6 THE CONTENT OF THE QUESTIONNAIRE.....	26
3.7 ADMINISTRATION OF THE INSTRUMENT	27
3.8 DATA ANALYSIS.....	27
CHAPTER FOUR	29
DISCUSSION OF RESULTS AND FINDINGS	29
4.1 INTRODUCTION.....	29
4.2 Sex Distribution of Respondents	29
4.3 Age Distribution of Respondents.....	30
4.4 Position of Respondents	30
4.5 Level of Education of Respondents.....	31
4.6 Types of Project Undertaken	33
4.7 Technical Challenges of projects undertaken	34
4.7.1 Business Environment	35
4.7.2 Contractors Needs	36
4.8 Market Conditions	42
CHAPTER FIVE.....	44

CONCLUSION AND RECOMMENDATIONS.....	44
5.1 Introduction	44
5.2 Summary of Findings	44
5.3 Conclusions and Recommendations.....	44
5.4 Conclusion.....	44
5.4 Recommendations	46
5.5 Limitation of the Study.....	46
REFERENCES	46
APPENDIX	51



LIST OF TABLES

Table 2.1: Development Projects by some Small Scale Contractors in the Region	19
Table 4.1: Sex Distribution of Respondents	29
Table 4.2: Age Distribution of Respondents	30
Table 4.3: Position of Respondents	31
Table 4.4: Level of Education of Respondents	31
Table 4.5: Technical Challenges of projects undertaken	35
Table 4.6: Business Environment Factors	36
Table 4.7: Contractors Needs	37
Table 4.8: Training Needs	38
Table 4.9: Challenge Factors (FINANCIAL MANAGEMENT)	40
Table 4.10: Managerial Skills	41

LIST OF FIGURES

Figure 4.1: Method of Getting Projects	32
Figure 4.2: Frequency of Getting Jobs	33
Figure 4.3: Types of projects undertaken	34
Figure 4.4: Tendering Skills	42
Figure 4.5: Market Conditions	43

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DEDICATION

The work is dedicated to my late mother and the three joy of my life, Abdul Basit, Ahmed Salim and Fareed Baba.

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 INTRODUCTION

This chapter includes the overall outline to the dissertation. It begins with the main subject matter of the research. It shows clearly the main issues that are under the study and gives background to its explanation. The chapter indicates the problem statement, purpose of the study as well as specific objectives of the study; it indicates extent and boundaries in terms of the geographical area of the study and concludes on the arrangement of the study.

1.2 BACKGROUND OF THE STUDY

The small scale- contractor is defined as those with insufficient financial and managerial resources and may need support to function effectively (Kulemeka, 2015). According to Richards (2016), the small scale enterprise is sized or classified by the number of employees they have; thus small building contractors are those having employees less than 10. In Ghana small scale business are businesses that employs 29 or fewer workers, or small enterprise are businesses which employs in the range of 6 and 29 or with fix properties of not more than a hundred thousand (100,000 United States Dollars excluding land (NBSSI). Thus small scale businesses, according to the National Board for Small Scale Industries are those that employ between 6 and 29. Small contractor definition is somewhat not clear due to practice of subcontracting, financial year is also not suitable as most projects span those years, capital holding is also difficult to use to define it as variety of methods are adopted (Miles, 1980). For construction business to be able to run efficiently it needs a number of factors (Larcher, 1998). First, there is the need for the firm to be awarded jobs. Again, contractors should possess the requisite resources, expertise and capacity to take the construction work. He further stated that, it included having trained

and efficient staff, with competent skill and unskilled labors well as supervisors and engineers. Further, a contractor has to also possess enough capital holding for the project (Public Procurement Authority, 2003) standard evaluation for works. Within the developing countries such as Ghana, firms or organizations with the ability for construction jobs are graded into five groups World Bank (1984) as cited by (Larcher, (1998). That is initial builders “jobbers”, communal groups or self-help, Private construction companies, companies owned by the state and foreign contractors. He further stated that in most low income nations, the fifth (5) group that is the expatriate firms has the requisite financial resources of their own and also the experience and collateral to undertake large projects.

The contribution of small scale contractors to the growth of the gross domestic product (GDP) is very significant. A research by (Osei, 2013) reported that, in 1996, construction industry contributed 7.6 which rose to 8.5 percent in 1997. He further stated that it increased to 9.1 percent and improved further to 9.8 percent in 2007. Again, the small scale building contractor’s share of the market in terms of cost of building materials is about fifty (50%) and about eighty (80%) of casual employment to both skill and unskilled labour in most towns and communities in Ghana. Ahazie *et al*, (2009) in a related study stated that the nation’s infrastructural development is being provided by the small scale construction industry in the areas of educational facilities like classrooms and teacher accommodation, hospital, clinics and CHPS compounds for health services, and so on.

The impact of small scale contractors on the economic and social areas as studied by (Ganesan *et al*, 1983) as cited by Ahadzie (2009), indicated the following features and elements.

- Small scale contractors use less heavy equipment than as compared to big construction companies thereby creates more employment directly or indirectly per capital investment.

- They provide avenue for energetic youth to utilize their individual talents and energies which will not have been the case in the bigger construction firms.
- The small firms fill gaps which are not attractive to the bigger organizations in the economy.
- They provide vigor and contributions for economic competition and enhance peaceful existence and generally do no harm to the environment than large organizations. (Wells, 2007).

1.3 RESEARCH PROBLEM

According to Laryea, (2010) small scale Contractors in Ghana lack the required technical and managerial skills for construction projects, sometimes some of them have either little or no education. Most of them face operational challenges. He noted that most of them are either with little skills in managing construction business or don't see the need or lack the financial ability to employ well trained professionals. He further revealed that because most of the small scale contractors usually lack the needed skills in executing their projects, they mostly miss completion dates. Projects they execute are mostly fixed sum contracts. In some cases, payments could be delayed for so many months and at times years, sometimes when they are eventually paid, no adjustments are made for fluctuation payments. This sometimes forces some of them to fold up (Kianosh eta l, 2013). The requirements for tenders such as audited accounts spanning several years, works of similar nature for some years, relevant equipment either hired or owned and personnel of the contractor have to be provided with the requisite qualifications (Public procurement Act 663, 2003) are often cumbersome process for small scale contractors Again, small scale contractors that operates in the public sector but are not linked to government of the day usually do not get jobs for several years (Auditor General's Report (2014), thus some small

scale contractors do not even tender for projects that are publicly advertised in the dailies unless being specifically asked to do so by the heads of the awarding agencies like the MMDA'S, (contractors Association 2009). According to Iyagba (2015), these contractors at times either bid lower or higher than expected averages, their bids for tenders are sometimes unrealistic, when they none the less win the contracts, schedules are poorly or not prepared at all, they encounter cash flow problems and successful completion of projects on time.

1.4 RESEARCH OBJECTIVES

The main purpose of the study is to identify the challenges and develop methods for improvement of small scale contractors with focus in the Tamale Metropolis.

The specific objectives of the study are:

1. To identify small scale contractors needs towards their growth.
2. To identify challenges faced by small scale contractors
3. To find out the importance level of small scale contractor training needs.

1.5 SCOPE OF THE STUDY

The study is focused on D3K3 contractors as per the classification of the Ministry of Water Resources Works and Housing (MWRH) as Small Scale Contractors. The contractors were drawn from the list of the Tamale Metropolitan Assembly, the Architectural and Engineering Services Limited (AESL) and A&Q Consultants which are notable institutions in contraction related activities. The Tamale Metropolis being the nerve center of construction /economic activities of the 26 Districts of the Northern Region (Alhassan, 2014), was chosen for the study. The study is limited to identifying small scale

contractors needs towards their growth, and challenges they encounter as well as their training requirements.

1.6 SIGNIFICANCE OF THE STUDY

This study seeks to offer immense benefits to small scale contractors to appreciate the challenges and methods for improving their operations. Also, the findings of this study will serve as a guide to the Public Procurement Authority and awarding agencies, consultants and contractors in general; this will acquaint them with the necessary ways by which emerging contractors can be supported to improve.

The research provides the general public with information on small scale contractors as well as the need to cooperate with them in executing projects since they mostly operate in the remote areas of the country.

This will also offer an opportunity to policy makers to make good decisions thereby instituting practical policies to enhance their performance and impact in the society.

Finally, it will contribute to the literature on small scale contractors and a source of reference for further research. A researcher who wants to research further into this area will see this material as a useful source of reference.

1.7 STRUCTURE OF THE RESEARCH

This research structured into five distinctive chapters. Chapter one of the study comprises an introduction and background to the research on small scale construction contractors. The chapter also contained the statement of the problem, the aim of the research and research questions. Whiles chapter two is about the review of literature of challenges of some small scale contractors and their growth needs. The third chapter outlined the methods of research and procedures used to include the research design, procedure for

sampling and population, instrument for data collection, procedure in the collection of data, as well data processing and analysis. The fourth chapter of the study is dedicated for the results and discussion of the results. Whiles the last chapter dwelled on the brief discussion of the findings, the conclusion as well as, recommendations of the study,

1.8 METHODOLOGY

A number of research approaches were adopted in three different phases including a review of literature in the small scale contractor's challenges which helped in putting up a theoretical framework for the research. A closed ended questionnaire was developed in collecting data from the field. A statistical package for social science SPSS version 23 (SPSS) was adopted which helped in analyzing the large volume of data gathered. A quantitative method was adopted due the fact that the data gathered was expressed in figures, tables, charts and percentages in order to develop understanding of challenges facing small scale contractors in Ghana.

The targeted respondents were construction managers, and professional employees. A total of thirty-five (35) D3K3 contractors were targeted in the Tamale Metropolis to respond to close ended questionnaire on the following issues:

Five point Likert scale on factors that hinders the small scale contractors' growth.

The capacity and training need of small scale contractors.

The questionnaire was personally distributed in person to the respondents and retrieved the same day. The data was then ranked in order of scale.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter deals with literature review from both local and foreign sources. It begins with the contractor classification and challenge factors such as financial, managerial, human resource management, the nature of the work, political and the business environment militating against their performance their capacity building needs and finally their training needs.

2.2 SMALL CONTRACTORS IN THE CONSTRUCTION SECTOR

The construction sector has contributed a lot to the socio-economic and infrastructural development to nations, especially developing countries like Ghana (Adams (1997), as cited by (Laryea 2010), identified the challenges of Nigeria's small scale local contractors as coming from unreliability from suppliers as well as material prices, getting timely payments, getting jobs, accessibility to capital, skills in negotiating for variations, plant availability, difficult conditions of contract, and dispute resolution. Adams (1997), identified other constraints as: completing jobs on time, design changes, contract documents that are difficult to understand, transportation of and control of construction resources, preparing reliable tenders, communication with project team members, skilled labour shortages, public image, financial accounting management, clients poor regulation and planning for project. The rests include management of site, technical knowledge, construction companies' commitment, human resource management, and provision of quality workmanship.

2.3 FEATURES OF SMALL-SCALE CONTRACTORS IN GHANA

In Ghana, an organization in charge for contractor registration (that is the building and civil contractor is the Ministry of Water Resources, Works and Housing (MWRWH).

The MWRWH does this in conjunction with the Registrar General's Department under Act 179 (1963) of the companies' registration code (Amoah and Ahadzie, 2014). When the contractor registered, they are classified based on some guide lines, such as: the equipment the contractor owns, financial ability, similar works performed over some number of years and technical personnel. He further stated that MWRWH uses two classifications for contractors: Class 'D' for building works and class 'K' for civil works.

According to MWRWH communiqué, the addition of a contractor's name in the Ministry's classification register is only compulsory for a contractor who desires to work for the Government. Contractors for these classes are further divided, ranging from class D1, D2, D3, D4 for building contractors and K1, K2, K3, K4 for civil works. Class D3/K3 and D4/K4 contractors are generally regarded as small scale building contractors (SSBCs) while D1/K1 and D2/K2 are also regarded as large companies. Originally, the class D was for road contractors, however, the two classes have now been combined to D/K which can enable a contractor to execute both building and road projects. The focus of the study is on the D3K3 which are referred to as small-scale contractors.

2.4 CHALLENGE DEFINED

A challenge is defined as being faced with something that needs mental or physical effort in order to succeed and therefore tests one's ability (Cambridge English Dictionary, 2016). A challenge, is any inhibiting factor against the smooth implementation of an activity. The various forms of challenges are described in the following sub-sections

2.4.1 Financial Challenges

That small-scale building contractor faced a lot of challenges in Ghana and the world over cannot be overemphasized. A literature review from foreign and local sources on the matter is presented below.

2.4.1.1 Cash Flow Management

(Pimplikar, 2014) identified the issues of performance of Indian small and medium scale contractors as management of the flow of cash, lack of capital and low sale as the most important issues militating against the success of small and medium contractor. (Kivrac, 2008.) in a similar study indicated cash flow management skills were identified as crucial issues for small scale contractor's success. Again, a study in Swaziland by Phaladi (2009), concluded that failure by the small and medium size contractors were as result of to lack of financial resource for complex construction projects as well as their inability to provide securities and limited knowledge in financial management. He indicated that small scale contractors are either lacking needed resources or knowledge in the construction business.

2.4.1.2 Lack of Cash

A study by (Dangalazona, 2005) in South Africa noted that challenges encountered by small scale contractors who are into the construction of housing are planning and financial management. They identified delayed payments and lack of cash as the main problems facing emerging contractor. They stated that small- scale contractors do not have their own ready finance and there is no access to affordable loans. All these was attributed to lack of collateral, small contractors that manage to obtain loans have to pay very high interests, the financial institutions also include financial risks management charges which renders contract unprofitable.

2.4.1.3 Non-Existing Payment Plan

According to Laryea, (2010) a study conducted on Ghanaian small scale contractors, identified their main problem as the issue of timely payment. Payments for works done were usually delayed. These challenges meant cash flow forecast cannot be carried out due to lack of payment plans; there is usually no plan for payments. These difficulties of cash flow forecasts for contractors in Ghana means that they are regarded as high risks for banks, hence interest are higher. Therefore, the price of contractor's expenditure requirements is high, the contractor therefore makes little or no profit.

2.4.1.4 Contractor Classification Problems

It is important for government ministries to make sure people really have the requirements for financial requirements, equipment as well as personnel needed for grouping into a particular class (Laryea, 2010). He further stated that there was the need to review the process of registering contractors. (Ugochukwu, 2014) in a research on the Nigerian small and local contractor participation in the public sector construction and working capital management revealed that the unique difficulties are in the area of financial resources, according to them, inadequate awareness for the need for working capital and its management in the business is one of the main bottlenecks for small scale contractors, another problem was one-man business management style that results in impediments are, low-capital, funding inadequacies and money problems and its management were all the relevant issues that goes against the small scale contractor.

Again, the challenge of high cost of construction financing. Ugochukwu and Onyekwena (2014), suggested that unplanned spending and diversion of funds meant for projects were major causes of poor performance by small scale contractors. According to them, the

contractor must also possess skills in contract control planning to be able to succeed. (Iyagba, 2015) study on problems and opportunities of small and Medium Scale construction firms in Port Harcourt reported similar factors such as poor financing. They stated that multiple taxation were major challenges confronting SMEs. Nawadi and Dangalazana (2005), did a similar study and supported the issues of challenges facing the emerging contractors as delayed payments as well as shortage of funds as major obstacles of small scale contractors in South Africa.

2.4.2 Technical and managerial

According to Larcher (1998), small contractors attempting to develop their business encounter the problem of good documentation in trying to build their businesses in the construction industry. They do not have enough technical skills, experience and tools to win contracts that are profitable. He maintained that most small scale contractors end up either losing or overpriced bid, or win a severely an underpriced bid. This is as a result of limited skills in contract estimating. He stated that Costing and estimating as well as price are not known. Again, control program to manage the project are usually not provided.

2.4.3 Human resource management.

The greatest resource for any organization is the people (By Bob Muir, 2005). They are of the view that the success of operations of construction is dependent on the ability and level of knowledge of the people engaged in doing that work. Again, human resource quality, is what sets one company or team apart. They maintained that most at times winning a construction project to a large extent depends on the availability and skill of the contractor's personnel (Bob Muir and PeFall, 2005). They further stated that having well skilled employees in place to steer activities is important. Clearly, enough skilled and

unskilled personnel and at the same time motivated workforce to carry out work is a scarce necessity. Chilipunde (2010), in questionnaire survey on the difficulties faced by small scale-contractors in Malawi reported that the operational constraints facing small scale contractors were absence of motivated and skilled staff. Training and business skills and inadequate skills of the staff in information utilization as well as information technology (IT), were among factors identified. Chilipunde identified attitudinal factors such as lateness and absenteeism amongst some of the stakeholders and members. The problems in getting and employing good numbers of capable and talented people were becoming more difficult (Bob Muir 2005).

According to Muir (2005) some small scale construction managers and owners appear not to understand terms and conditions of contract. He maintained that small contractors required training in the application of contract performance procedures and strategies in the use of contract law in dealing with clients. A similar study by Laryea (2010), also stated challenge with managerial and supervision of construction works in Ghana. He noted that most small scale contractors lose materials to theft by some of those engaged at sites. They are many artisans not having the skills to carry out their works. He stated that somebody just gets up and claim to be a mason or carpenter. There are no laid down modality for entry in the artisanship. Further, the practice in Ghana is that an artisan learns through a “master” for some number of years and finally passes out to practice on his own, there is no any formal training requirement from artisans before entry to the work environment.

2.4.4 Nature of the work

Construction activity is interdependent and complex arrangement that can best be described as organized chaos, (Muir, 2005). Unlike other businesses, its activity differs from the manufacturing sector or other industries are that it is not smooth and occurring at all times, construction is said to be seasonal and at the same time unique. Again,

construction at times takes place at remote sites with attendant transportation difficulties, construction process is also unpredictable. He further stated that there are challenges of applying automation because no two projects are exactly the same. Also, there is high potential for encountering unsuitable conditions in terms of earth works etc., construction costs can change due to unforeseen circumstances. Muir, is of the view that supply and utilities application can be rendered difficult due to the nature of construction. Added to these is the fact that new ideas and technical innovations are adapted to slowly especially small -scale contractors. The success factors of construction are dependent upon the quality of and complexity of the project. However, small scale contractors often find very complex product to be of mind-baffling in size and cost. The nature of construction work is such that, it is done in the open, and it is therefore subject to environment and whether conditions. Muir (2005) further stressed that construction by nature in the dry season it dusty and sometimes also muddy in rainy season rendering smooth application of plans. Small scale contractors are inundated when such conditions occur.

2.4.5 Payment Issues by Clients.

The client awards contracts when they are funding available. However, the contractor gets a project and manages to secure funding to complete the work then the clients fail to pay promptly. Again the contractor or emerging contractor is given a construction job and he does it right in accordance with laid down provisions, but then the client lacks money to pay him thereby forcing him out of business (Mvubu, 2008) this at times results in the contractor taking desperate actions by confiscating the completed building from clients (myjoyonline, 2012). Similarly, the president of contractors' association in Ghana Martins K. Nnuro recently lamented that the lack of prompt payments to members puts them on

debt from Bank loans (Ajarfor, 2015) According to him; some of them have not been paid for one to two years after completion of their construction projects.

2.4.6 Political Factors.

(Donkor, 2011) carried out a study on the factors of business failure with regards to SMEs building contractors in the Ghanaian construction sector and reported a number of factors as the suspension of projects of previous government. In these situation, priorities changes when new government comes in. He identified delay in collecting payments for projects from new political heads as there is unwillingness to pay contractors from previous regimes. Again, small- scale contractors face financial exploitation and demands from political heads. Delayed payment is common in the public construction sector; however, non-payment of interest hampers smooth operations of small scale contractors. According to him, incompetent project implementation by project leaders renders most projects ineffective. Donkor (2011), further identified policy changes by governments in areas of particular construction works. He stated that as result of competition, contractors suffer low or no profit. He again pointed out difficulties in collecting payments for works done under governments that has left power, more so, poor tendering and selection procedure by awarding agencies go along to deny genuine contractors many jobs, Small and medium scale contractors are unable to properly forecast due to high interest rates and unstable inflation in the economy.

Recently the president lamented that contractors has approached him for payment issues for projects they constructed for the country for about two years now but have still not been paid. According to him, most of them have secured loans from various sources (friends, families, banks etc.). Most of them for fear of being sent to court gets heart attack and died in the end. “The president maintained that investigations will be conducted into

those issues and officers who administer payments to these government projects should ensure that contractors are paid without further delay” (Columnist Agbo, 2012). Fatai (2014) studied the challenges and constrains of small building contractors in Nigeria and enumerated factors as either a result of the operation environment or uncomplimentary policy of government, global and local fiscal trends.

2.4.7 Business Environment.

According to Kulemeke (2015) small and medium-scale contracts executed by SMCs in Malaysia between 2007/08 and 2010/11 financial years were 53.8% successful, 26.7% fair, and 19.5% unsuccessful. Effectively, 46% of the contracts were completed outside the allowed period or not completed at all. (Ihua, 2012) in an exploratory investigation of the business environment and factors hampering the smooth operation of small business contractor’s performance in Nigeria revealed among others as inadequate existing infrastructure, unstable economic policies and multiple taxes burdens. Thus the business environment for small contractors is not suitable for sustenance and smooth operation.

2.4.8 Bribery and corruption

Construction project are characterized by corruption and bribery. This practice is usually in the form of kick-backs which is an issue in the construction sector in Ghana (Laryea, 2010). According to Laryea, this is usually expressed around Ten percent (10%).

However, it is mostly negotiated down to 5% by contractors, this is said to be accepted and built in pricing mechanisms by contractors. Drawing from Laryea (2010), the UK serious fraud office (SFO) which found Mabey and Johnson culpable in Ghana and other countries, the payment to commission representatives becomes part of normal business sanctioned at high level. The payment was calculated as part of contract pricing. The bribes paid were

roped from middle men or agents. However, it was not surprising to pay a ranged from 5%-15% by M&J, even though M&J intimated the average was around 8% (Regina vs. Mabey and Johnson limited in the (Southwark Crown Court No. T2009 7513 as cited by Laryea 2010). Work quality is the effect associated with kick-backs. Contractors turn to use low quality materials and consultants hardly reject them. Corruption including (bribery, embezzlement, kickbacks and fraud) accounts for about 340 billion dollars annually worldwide (Sohail, 2008). Bowena, (2012), in a research in South Africa was of the opinion that project managers are perceived to be involved in corruption, especially in the asking of bribes and manipulation of tenders. Professional consultants and other actors in the construction and management levels are not above reproach.

2.4.9 Safety issues

(Smith-Jackson, 2011) in a research on crucial incident within small building contractors showed that small building contractors carry over challenges that were not resolved at the initial stage of planning. The added designs and plans at initial works by big firms make it a challenge for small contractors to make their inputs to contract requirement which are more compatible for them.

2.5 THE NEED FOR ATTENTION FOR SMALL SCALE BUILDING CONTRACTORS

The main aim of encouraging small scale contractor development in developing countries is to enhance the capacities and more of such companies in terms of performance so as to help them undertake jobs that they are capable to do and sustain their operation and capacity. The small scale contractor should be able to:

- (i) Perform the role expected of them taking up projects and completing in accordance to expectations
- (ii) Develop the infrastructural and building facilities with local materials and labour;
- (iii) provide opportunities for employment, especially the youth
- (iv) Apply the right methodologies and technologies; and
- (v) Products that meet standard quality (Ofori, 1998)

The World Bank in an independent review for the need for capacity building for small contractors (2005) and in all sectors of the economy including the Road sector examines three dimensions of capacity building in the public sector which will eventually trickle down to the private sector as follows:

- i. Capacity of the institutions that involves policies, methods or procedures, and legislation and the systems of goals and incentives that makes up the “the guiding principle”;
- ii. Organizational capacity, groups of individuals put together for a purpose, with similar aims and resources; (iii) personnel capacity building, with the ability to define objectives, design and manage programmes, and raise resources for the delivery of public services (Otoo, 2009)

Capacity building as defined by the Erasmus University is the process whereby a group of people, organization and institutions enhances their capabilities to carry out a function and solve problems or understand and deal with developmental needs in a suitable manner A study carried out by the, Korning *et al.* (2006) quotes a widely used Organization for Economic Cooperation and Development (OECD) definition as

enhancing the abilities of societies, groups, individuals and societies to (i) carry a task , achieve aims and also solve problems and (ii) deal with development issues in a wide and sustainable basis (Korning *et al*, 2006).

The Study states human resource development stresses on human capital, development geared towards the organization as well that toward the institution. Korning *et al*, (2006) further argue that capacity development was a not a static and happens at all levels as people try to improve their abilities in relation to one another. In Ghana, the lack of capacity of local contractors has attracted the concern of both government and donors.

Small scale contractors provide basic infrastructural services.

Table 2.1: Development Projects by some Small Scale Contractors in the Region

Town	Project name	Funding/donor	Expected economic/social benefit	Type of local contactor involved
Loloto	The construction water supply system	Northern region water % sanitation (NORST)	Reduction in search of potable water	Small and medium scale
Kpandai	Construction of girl's dormitory	Get-fund	Quality education for girls	Small and medium scale
Tamale	Construction fence wall	PTA	Security	Small and medium scale
Bugya	Construction of CHPS compound	DACF	Improvement of health services	Small and medium scale
Zabzugu	Construction of town drains	DACF	Transportation	Small and medium scale
Zabzugu	Construction of water supply	IDA	Portable water and reduction in water borne disease	Small and medium scale

Gushegu	Construction of 1 No,3units classroom block	DDF	Education improvement	Small and medium scale
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Source: NRCC

As illustrated above, Table 2.1 of some projects shows the significant contribution of the small scale contractor to the improvement of the economic and social life of the populace. The importance of this cannot be over-emphasized. Therefore, it is necessary to upgrade the performance of the local contractors to deliver projects that will meet the developmental needs of the local communities will in no small way improve local economy and provide jobs for the people.

2.5.1 Capacity building

Strategies and measures for approach to Capacity Building of small scale Contractors. So many approaches can be applied to a study on training for local contractors which are all rooted in theories connected to the training and building the capacity of local contractors. Korning *et al* (2006) as cited by Ahin, (2014) explains many theories relating to capacity building. He indicated that in practice, theories to building capacity usually stress stated measures like spending on human resources of institutions, groups or organizations. Korning *et al* (2006) again observe that it is unclear what institutions needed. It mostly refers to measures (norms, values laws, rules and incentives) through which the attitudes, organizations and individuals can be influenced.

Muttagi (1998) also stated that an important task of researchers and managers is to develop training courses which takes care of the ameliorative as well as development needs of urban areas. It requires preparing a large number of tailor-made, comprehensive courses

incorporating, where required technical components, behavioral science inputs and material relating to management skills. According to (Narayanasuwami, 1998) it is now widely recognized that the availability of physical, technical and financial resources is not a sufficient condition for successful socio-economic development. He believes that the strengths and weaknesses of institutions as well as behavioral factors play an important function in determining the nature and pace of the development process. According to Korning *et al* (2006), the interdependence of organizations, institutions, individuals and groups may fail to yield the expected results. It will thus be very useful to improve the entire system all at once. With this approach as capacity building is dynamic, different actors at various levels strive to improve their capabilities in conjunction with each other (Korning *et al*, 2006). Korning *et al* (2006) further argues that, complex systems are required to deal with complex societal issues and ambitious projects. External experts are often strongly involved in building capacities. If the external players play a dominating role there is a likelihood that project may deviate from existing routine. And there is real danger that after the project the old routine continues and that little remains of the project. Beneficiaries consider the process theirs if participatory approach is applied. It is very important to beneficiaries, but if the later feel that way, they become encouraged and instrumental in the project (Korning *et al* 2006) the concept of empowerment is linked to principle. Sustainable results appear to be very important by use of participatory approach.

Asiama, (2007) also suggests that, very vital success will be realized by the involvement of small scale contractors in planning and implementation of programs for their own development. He reiterated that, most small scale contractors are very much aware of the causes of their challenges. What then they needed includes the right policies at technical and policy support to overcome these problems. So many different models may be applied to be used in capacity building interventions. Korning *et al* (2006) in the first instance advocates

for cross utilization of skills and knowledge. These may be termed as optional policies which deals with particular challenges, options in cost relating to costs and benefits and the, capability of civil servants and NGO workers to carry out some particular operations, legislation in some countries, means of enforcing laws, etc. But development of tools and equipment can also be referred to be capacity building particularly ICT-related equipment. (Walters, 2007) on her part posits that development of capacity as a principle or area of concentration enjoyed some improvement in the last ten years. What need attention is that capacity development is firmly linked in development theories and systems connected to individuals, societies, organizations and institutions. Walters (2007) further explains that the recent understanding of the notion of capacity is of the idea that capacity do exist in all situations. It is however not clear as to if those capacities already existing have been accepted and utilized that enables the individuals and organizations to perform well what they want to achieve. Since 1995, the Department of Public Works (DPW) in South Africa has been seriously involved in programme implementation and concepts to promote upcoming small scale contractors in the construction sector. (Fester, 2015), they Struggle to keep a control on cost whiles expanding the business and staying competitive can be a difficult job. There are some small businesses where additional care is needed for more profit in future.

2.6 STEPS SMALL SCALE CONTRACTORS CAN ADOPT TO SUSTAIN THEIR BUSINESS.

The small scale contractor should have a good understanding of overheads. The contractor incurs a lot of expenses if an employee did not work for a day or week. The contractor will have to pay for office space and services (Jacqueline, 2014). These include loans and emoluments, communication and miscellaneous. Once the small scale contractor has a firm understanding of the fixed expenses, those expenses can then be

taken care of. When these are taken in to account it will be easier to make profit from the jobs that are won.

2.6.1 Variation Orders

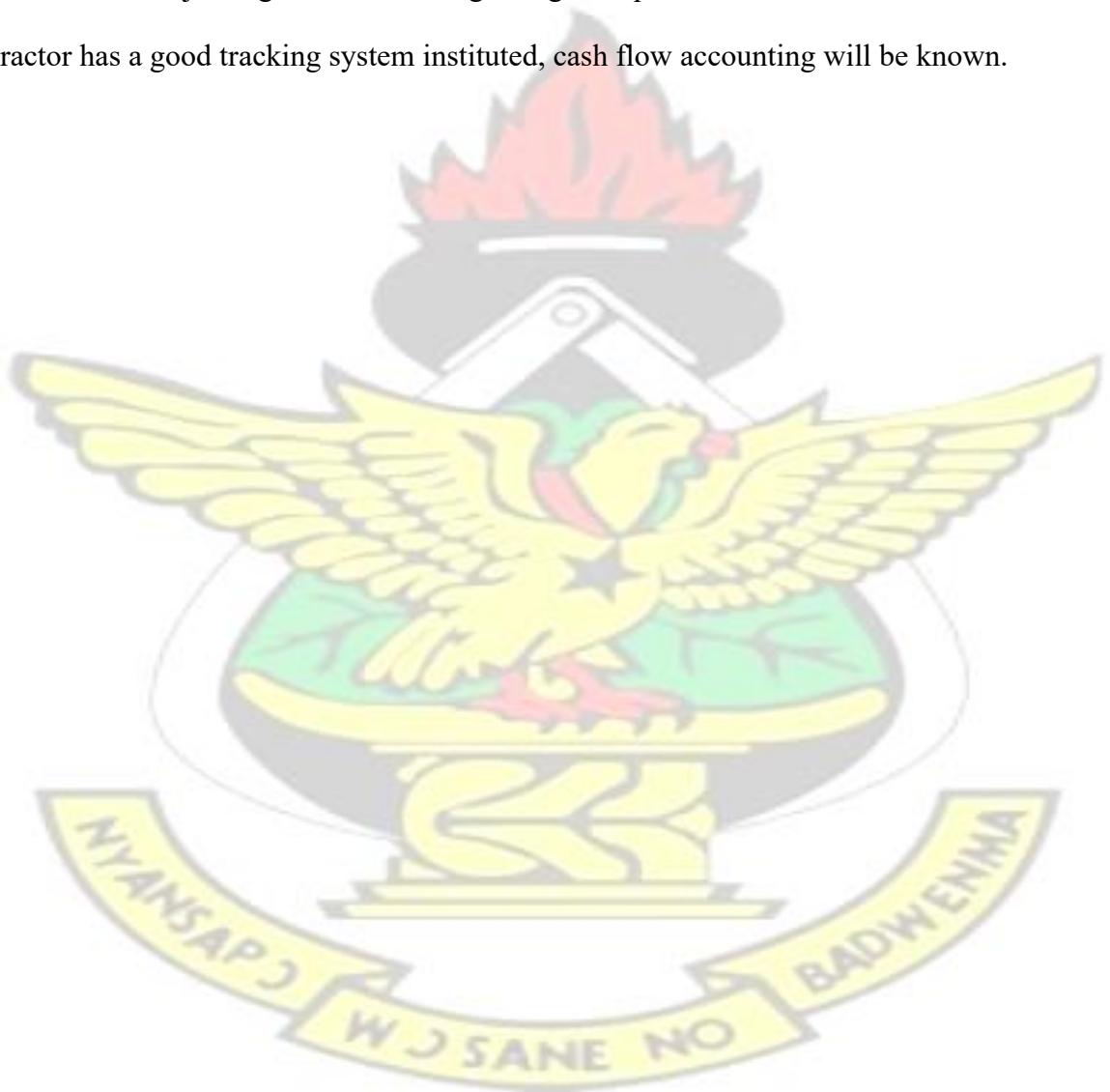
Being profitable or not depends on how change orders from clients are managed by the contractor. According to Jacqueline (2014), changes that the client orders which do not form part of the original contract could take a lot of time and extra cost. This indicates that the firm is losing a lot of money if the contractor fails to keep track of change orders and ways to increase gains, since the contractor is going to do work that are not being paid. Variations are a good basis for revenue increase, also, since the contractor already has the original contract there is no competition with other construction firms for the extra work. The contractor should institute a system in place to monitor, and translate those changes that will later be put into items that are billed to the client (Fior, 2014).

2.6.2 Analysis of the Job

A well-structured system of estimating and accounting will relieve the contractor of the redundancy of always estimating for every new contract from the start. There are always similarities in most construction works and in so many businesses. The contractor should keep an electronic record in place that will give a good record system which will measure pricing system and profitability, the amount of materials and labour requirement will easily be known if this system is put in place. It is important that every business has the opportunity to reflect on their previous works. This helps to predict the successes and stumbling blocks and facilitates learning from past failures so as to enjoy future profits.

2.6.3 Accounting on and off the job site.

Most small scale contractors lack good accounting system in running their businesses (Jacqueline, 2014). Investing in a good business accounting software program such as QuickBooks and MS project 2013 then engaging a project manager who knows how to write reports and track progress. Again, the small contractor is required to study the contract data frequently so that starting every job on a good business advice will let the contractor do the job right from the beginning. Jacqueline maintained that once the contractor has a good tracking system instituted, cash flow accounting will be known.



CHAPTER THREE

METHODOLOGY OF THE STUDY

3.1 INTRODUCTION

This chapter deals with the methods used in conducting the study. In achieving the aim of the study, the method adopted is very important Naoum, (2001) as cited by Amah, (2014). The methods that were employed were under data collection, selection of respondents, the method for the sample size selection and the analysis of the data that were collected.

3.2 RESEARCH DESIGN

For the aims and objectives of the data collection to be realized, a properly structured questionnaire was designed to seek information from D3K3 contractors and construction professionals like quantity surveyors of the private and public sector in the Tamale Metropolis. The questions were ethical and achievable. This research procedure was to bring to the fore the real or perceived problems militating against the performance and sustenance needs of the Ghanaian small scale contractors level of understanding and implementation of managerial skills. It was also aimed at identifying how significant, the challenges affect the development capabilities of small scale contractors as well as find out the importance level of small scale contractor training needs. The wording of the questionnaire was not bias and offered opportunity for the respondents the option of choosing the multiple choice provided.

According to Glasow (2005) as cited by Christain, (2014) closed ended questionnaire is easy for respondents to answer and also helps the researcher ease of data analysis. Therefore, closed ended questionnaire were adopted for the research. More so, the researcher should avoid questions that the respondents find difficult to answer including the assumption that the respondents know something about the subject especially personal

questions (Fowler *et al*, 1995). Questions that requires difficult calculation or reflects the researcher's feelings should therefore be avoided in choice of wording for questionnaire.

3.3 POPULATION

A sample size of 35 small scale contractors who are formally registered was used for the population of about 65 small scale building which was obtained from the Tamale Metropolitan Assembly, Architectural and Engineering Services Limited (AESL) and A& Q Consult. The study is focused on D3K3 contractors or their representatives.

3.4 SAMPLE SIZE AND TECHNIQUES

Due to scattered nature of data or absence of central data of registered contractors in the Metropolis, the Metro Works Department (MWD of the Assembly was contacted as well as the Architectural and Engineering Services Limited (AESL) and A & Q Consultancy Service. In all a total number of 35 (thirty-five) out of 65 who were deem to be active contractors were sampled for the study. The purposive sampling technique was used for the study. Therefore 35 questionnaires were administered to 35 respondents from 35 Ghanaian class D3K3 small scale Building Construction firms registered with the MRWH. The technique adopted for answering the questionnaire was personal distribution to managers and professional practitioners such as Quantity Surveyors. This was necessary because it allows the researcher to choose respondents with a good understanding and knowledge of the subject matter (Erbil *et al.*, 2010) as cited by Amatey (2014). Construction managers were however, the main target since they are the owners of most of the businesses and the success of it lies very much with their managerial skills, skill professionals were also used as source of information since they are equipped with technical know-how of construction operations.

3.5 DATA COLLECTION METHODS

Structured questionnaire was used to solicit the information from the 35 respondents of out of sixty-five registered D3K3 contractors who are classified as Small -Scale contractors. Questionnaire were designed based on the objectives of the study and were administered to the thirty-five (35) selected respondents. A primary source of data was obtained through the administration of structured questionnaires; however, secondary data were also obtained from, journals, financial reports from construction professionals, previous work related to managing small scale construction businesses, and professional surveyors' journals.

The instrument the researcher used for the collection of data from the respondents is a questionnaire. One set of questionnaire was prepared for the construction professional and managers. The questions were meant to solicit the respondents own opinions on certain aspects of the study such as “how do you see the need for training in business and construction management” for yourself and the staff of your company and whether regular contracts were won.

3.6 THE CONTENT OF THE QUESTIONNAIRE

The information in the questionnaire contains issues that are quantitative in nature which is a measure of “quantity” and was done under subheadings as follows:

Subheading (A) was about the company's data such as method of procuring projects, number of projects for the last few years, and frequency in procuring jobs

Subheading (B) Statement on training needs was concerned on factors like the contractors need like Engaging construction professionals to help improve performance, Government assistance etc.

Subheading (C) Challenges of small scale contractors

Subheading (D) focused on Managerial skills and use of Project Management techniques and Lack of Procurement management skills

Subheading (E) was on training needs, accurate preparation of estimates for works and tender pricing as well as Proper application of project management methods to works.

The questionnaire consisted of two types, namely closed ended and Likert scale types.

The closed ended covered 1-7 in subheading (A), while the Likert covered subsections (B) to (F) while part (G) covers the personal details of the respondents.

3.7 ADMINISTRATION OF THE INSTRUMENT

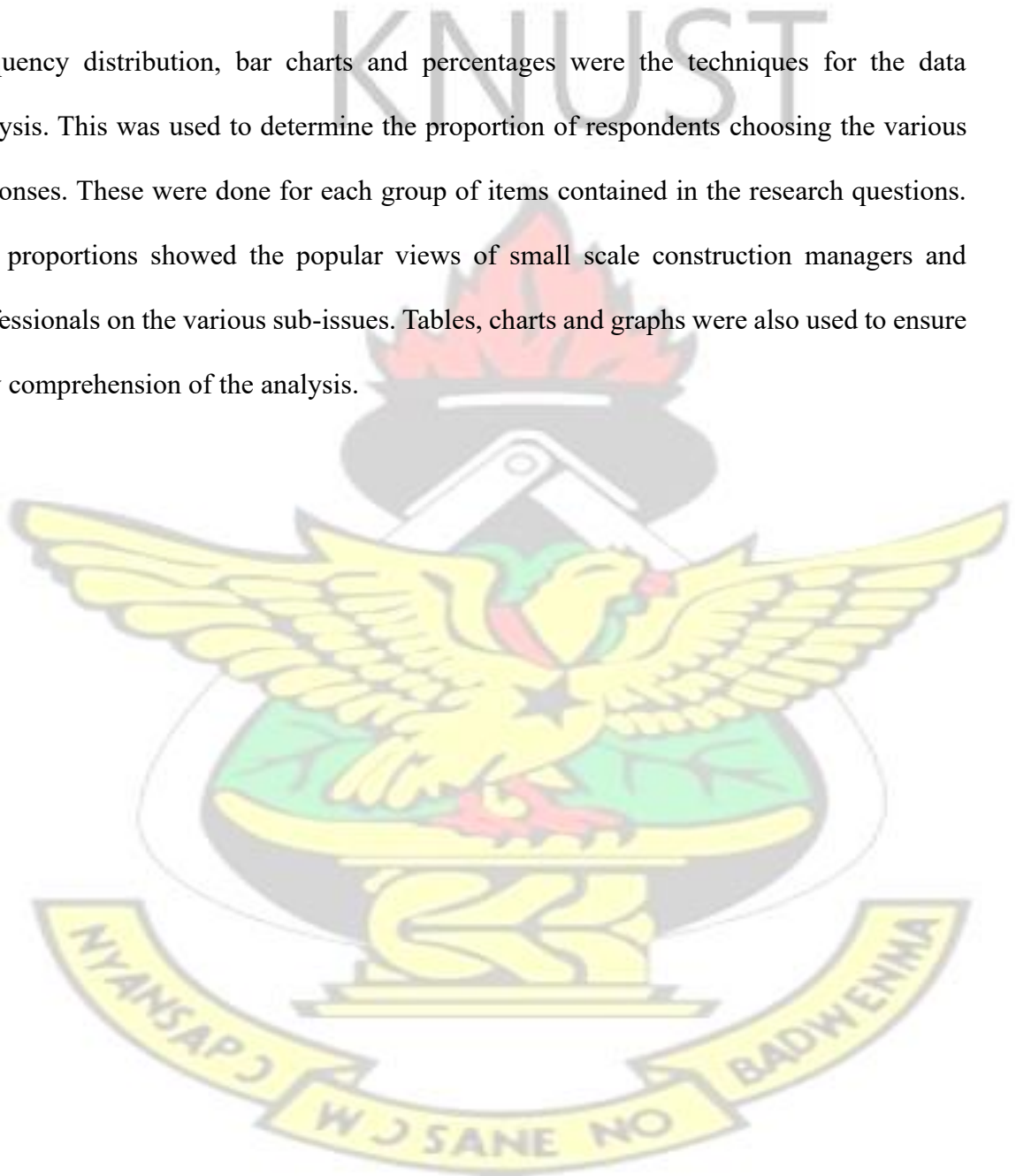
The researcher personally distributed the questionnaires to the respondents. Copies of questionnaires were given out to them to fill in for at least 50 minutes and at most 4 hours. The respondents were contacted on one-on-one basis to ascertain information on operational and managerial challenges necessary for the sustainability and growth of the small scale construction business. Official assistance in getting and completing the questionnaires was sought in some cases. The official approval was sought to assure respondents that the study was for academic purpose and that information provided will be treated as confidential. This process of distribution and retrieving of the questionnaires in person was taken for two reasons as suggested by (Ahazie, 2007) first, to make sure that the questionnaires gets to the intended recipients and secondly, to help improve the response rate.

3.8 DATA ANALYSIS

With the aid of International Business Machines Statistical Package for Social Science (IBMSPPSS) version 23, percentages, charts, tables and diagrams were used in analyzing the data using descriptive and frequency. The researcher conducted data editing to ensure

logical consistency and completeness of responses. Mistakes and gaps were corrected. The questionnaires that were sent out were discussed by the researcher with the respondents. The researcher gave explanation to the respondents before they answered the questionnaires. This was purposely done to achieve data reliability.

Frequency distribution, bar charts and percentages were the techniques for the data analysis. This was used to determine the proportion of respondents choosing the various responses. These were done for each group of items contained in the research questions. The proportions showed the popular views of small scale construction managers and professionals on the various sub-issues. Tables, charts and graphs were also used to ensure easy comprehension of the analysis.



CHAPTER FOUR

DISCUSSION OF RESULTS AND FINDINGS

4.1 INTRODUCTION

This chapter consists of analysis of the responses of the respondents. The data collected are mainly on small-scale construction firms, challenges of small-scale contractors, small-scale contractors training needs, age distribution of respondents, position of respondents in their various companies, sex of respondents etc.

The data so collected was analyzed using statistical tools, charts, tables, diagrams including narratives as may be considered suitable. The purpose will be to establish trends, make inferences, draw conclusions and proffer suggestions and recommendations to the problems and questions already enumerated.

4.2 Sex Distribution of Respondents

Table 4.1: Sex Distribution of Respondents

Sex Distribution of Respondents	Frequency	Percent
Male	30	85.7
Female	5	14.3
Grand total	35	100.0

From the table above 30 out of 35 respondents were males (representing 85.7%) and the remaining 5 respondents were female (representing 14.3%). This is an indication the construction industry is dominated by males.

4.3 Age Distribution of Respondents

Table 4.2: Age Distribution of Respondents

Age Distribution of Respondents	Frequency	Percent
18-27yrs	3	8.6
28-37yrs	18	51.4
38-47yrs	11	31.4
48-57yrs	2	5.7
Total	34	97.1
Missing variable	1	2.9
Grand Total	35	100.0

From table 2 above, 18 out 35 respondents of age 28-37years responded to the questionnaire which was the highest responds (representing 51.4%). 11 out of 35 respondents of ages 38-47 years recorded second highest responds (representing 31.4%), 3 respondents of age 18-27years (representing 8.6%) and 2 out of 35 respondents of age 48-57years (representing 5.7%) responded to the questionnaire which was the lowest responds. This shows that most respondents were young entrepreneurs in the construction industry.

4.4 Position of Respondents

Table 4.3: Position of Respondents

Position of Respondents	Frequency	Percent
Managing Director	12	34.3
Quantity Surveyor	7	20.0
Works Engineer	2	5.7

Supervisor	4	11.4
Other		
Grand total	10	28.6
	35	100.0

Table 4.3 above shows respondents' positions in their companies. Suffice it to say from the analysis that 12 respondents out of a sample of 35 respondents were "managing directors" at their various companies (representing 34.3%), 7 respondents were "quantity surveyors" (representing 20%), 2 of the respondents were "works engineers" (representing 5.7%) and the remaining 4 respondents were classified as others (representing 28.6%). These results indicated that most the information was gathered from managing directors of the companies who are owners of the businesses and hence their response could be relied upon for the study.

4.5 Level of Education of Respondents

Table 4.4: Level of Education of Respondents

	Frequency	Percent
Secondary	6	17.1
Tertiary	29	82.9
Grand total	35	100.0

Table 4.4 indicate the level of education of respondents and clearly indicate that 29 of the sample respondents have a tertiary educational background (representing 82.9%) and the remaining 6 respondents have secondary background which represent (17.1%) indicating that majority of the respondents were well educated hence could provide sound judgment on the questionnaire to provide reliable response for the study.

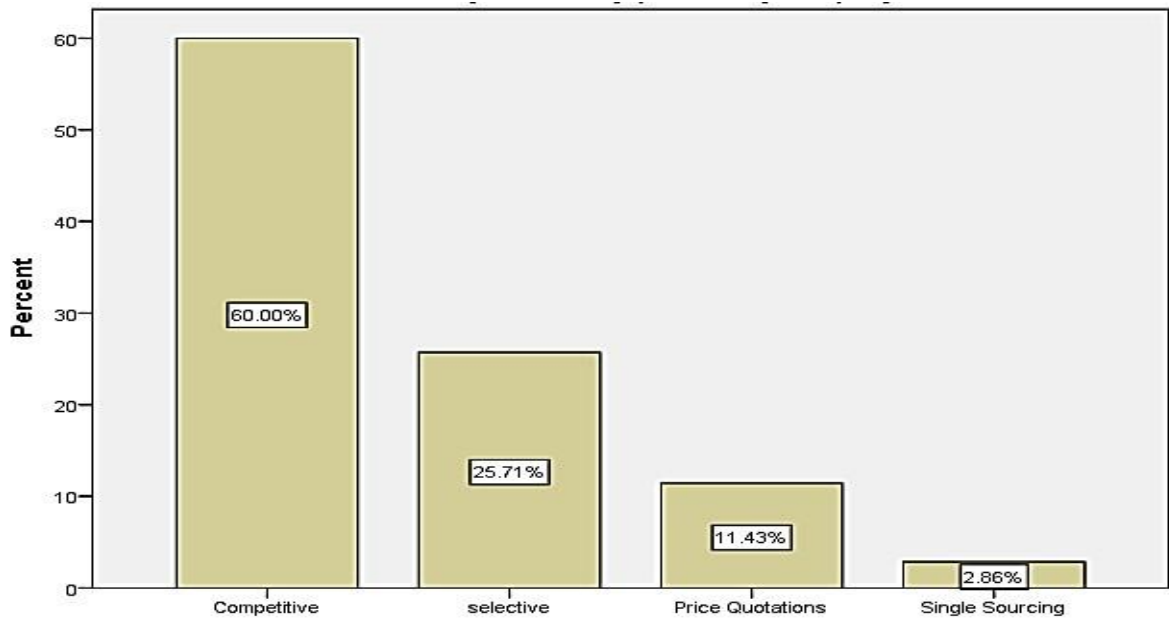


Figure 4.1: Method of Getting Projects

From the diagram above, shows the tendering methods that small scale contractors mostly procure their projects shows that, competitive is the tendering method which small scale contractors mostly procure their projects (representing 60%). The second highest method for tendering is selective method (representing 25.71%) and single sourcing method is considered as the lowest method for procurement representing (2.86%). These results is in contrast to Laryea's findings since majority of small-scale contractors do not obtain jobs through competition.

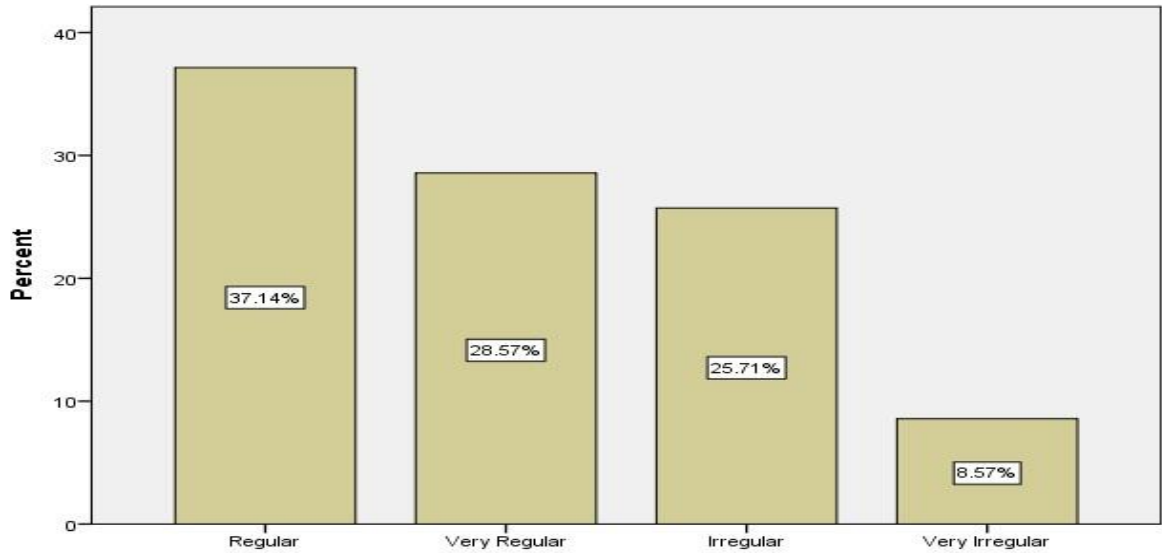


Figure 4.2: Frequency of Getting Jobs

Small scale construction firms were asked about how often they get their jobs; the diagram above indicates how they obtained their jobs. From the diagram above it is clear that they obtain their jobs regularly which is the highest (representing 37.14%), about 28.57% of the respondents often obtain their jobs very regularly, about 25.71% often obtain their jobs irregularly and about 8.57% of the respondents often obtain their jobs very irregular

4.6 Types of Project Undertaken

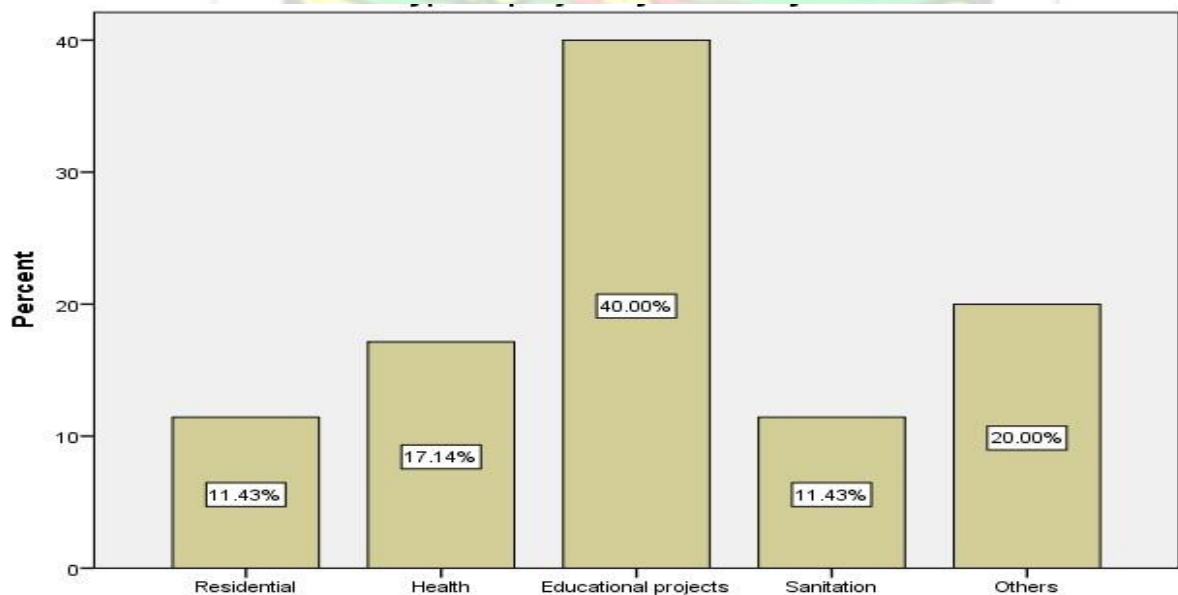


Figure 4.3: Types of projects undertaken

From the diagram above, small scale constructed firms are of the view that they usually undertake educational projects (representing 40%), about 20% of the respondents undertake other projects classified as others, while 17.14% also undertake health projects and finally residential and sanitation projects are the lowest projects undertaken by small scale contractors (representing 11.43%).

4.7 Technical Challenges of projects undertaken

Table 4.5: Technical Challenges of projects undertaken

ITEM	TECHNICAL FACTORS	STANDARD DEV	MEAN	RANKS
A	Lack of adequate knowledge in estimating and tendering for projects	0.657	1.74	5 th
B	Unrealistic pricing for tenders due to competition or lack of skills	0.843	1.77	4 th
C	Inadequate computer operating skills	0.880	1.79	3 rd
D	Lack of knowledge in Cash flow and accounting operations	0.879	1.86	1 st
E	Unrealistic demands from clients	0.772	1.86	1 st
F	Inadequate or no knowledge with programming software - Microsoft project etc.	0.877	1.77	4 th
G	Lack of skilled site personnel	0.648	1.86	1 st
H	Complex nature of the construction work	0.833	1.80	2 nd

The table above, show technical factors of challenges of small scale contractors by ranks of their respective mean scores, the respondents believe that; “lack of knowledge in cash flow and accounting operations”, “unrealistic demands from clients” and “lack of skilled site personnel” are the most relevant, thereby ranking all first with a mean score of 1.86 and standard deviations of 0.879, 0.772 and 0.648 respectively as shown above.

This was followed by “complex nature of the construction work” which was ranked second with a mean score of 1.80 and standard deviation of 0.833.

The third in rank was in respect of the fact that “inadequate computer operating skills” is another factor. This was represented by a mean score of 1.79 and standard deviation of 0.880.

The fourth ranked was “inadequate or no knowledge with programming software – Microsoft project” with a mean score of 1.77 in that order.

The least rank was “lack of adequate knowledge in estimating and tendering for projects” with a mean score of 1.74 and standard deviation of 0.657. This results indicates that most small scale contractors find it difficult or see no need in cash flow management, do not also engage skilled professionals and also have to contend with unrealistic demands from clients. This finding confirmed Larcher (1998) findings that Lack of knowledge in Cash flow is a major challenge for small scale contractors.

4.7.1 Business Environment

Table 4.6: Business Environment Factors

ITEM	BUSINESS ENVIROMENT	STANDARD DEV	MEAN	RANKS
A	Contracts in public sector are mostly not won on merit	0.844	2.12	1 st
B	Some contractors pay bribes before being offered projects	1.183	2.11	2 nd
C	Tender prices are pre-determined for contractors	0.900	1.91	4 th
D	Tenders are not competitive	1.175	2.03	3 rd

E	Change in government affects the growth of small scale contractors	0.923	2.03	3 rd
F	Payment process is unusually long	0.912	1.86	5 th
G	Public sector clients usually lack funds to pay on time	0.901	1.80	6 th

It can be seen from the table above that “contracts in public sector are mostly not won on merits” which is a major challenge factor to contractors with regards to business environment, it is thus ranked first with a mean score of 2.12. The view that some contractors pay bribes before being offered projects was ranked second with a mean score of 2.11 and standard deviation of 1.183. the fact that tenders are not competitive and the fact that change in government affects the growth of small scale contractors were both rank third with mean score of 2.03. followed by item C, F and G. The construction environment is greatly being influenced by political heads and nepotism as stated by Donkor (2011), findings that political interference affects the growth of small scale contractors. Thus a small scale contractor who lacks strong political links or belongs to the opposition finds it difficult to get jobs in the public sector which is the biggest employer.

4.7.2 Contractors Needs

Table 4.7: Contractors Needs

ITEM	STATEMENT ON NEEDS	STANDARD DEV	MEAN	RANKS
A	Engaging construction professionals help improve performance of contractors	0.658	1.51	9 th
B	Construction professionals need to be employed on permanent bases	0.932	1.89	3 rd
C	Refresher courses opens skills of smallscale contractors to overcome difficulties	1.043	1.94	2 nd
D	Professional skills are sought in the tendering processes for projects	0.631	1.69	7 th
E	Professional quantity surveyors and engineers must be employed to enable the small-scale contractors sustain business	0.770	1.63	8 th
F	Government must assist in small contractor’s sustenance and growth	0.888	2.00	1 st

G	Small scale contractors need to employ professionals in other to stay in business	0.741	1.76	5 th
H	Proper Classification of small- scale contractors affects their performance	0.772	1.86	4 th
I	Business management knowledge is the only skills needed to sustain and grow small-scale construction business	0.852	1.74	6 th

The table above set out to find out contractor needs with respect to engaging construction professionals on permanent bases, refresher courses to overcome difficulties, professional skills, small scale contractors need etc. The respondents believed that government assistance in small scale contractor sustenance and growth was crucial, thereby ranking this first with a mean score of 2.00. Refresher courses opens skills of small-scale contractors to overcome their difficulties were ranked second with a mean score of 1.94. The need for construction professionals need to be employed on permanent bases ranked third with a mean score of 1.89. Again, proper classification of small- scale contractors affects their performance was ranked fourth with mean score of 1.86. In that order, the least ranked was the fact that engaging construction professionals help improves performance of contractors with mean score of 1.51. It is thus clear from the study that the small scale contractors still need assistance from the government and also, periodic refresher courses will help them overcome their difficulties. The findings are in line with Laryea (2010) findings on small scale contractor needs.

4.7.1 Contractors needs

Table 4.8: Training Needs

ITEM	TRAINING NEEDS	STANDARD DEV	MEAN	RANKS
A	Accurate preparation of estimates for works and tender pricing	0.954	1.83	3 rd
B	Regular procurement of works	0.810	1.86	2 nd
C	Proper application of project management methods to works	0.867	1.69	6 th

D	Good preparation of project cash flow and financial appraisal	0.719	1.71	5 th
E	Knowledge and application of Contract Administration and Law	0.843	1.77	4 th
F	Knowledge in contractual claims preparation and negotiation skills	1.071	2.03	1 st
G	Good understanding of overheads	0.690	1.77	4 th
H	Proper understanding of change orders	0.954	2.03	1 st
I	Works Programming, Progress Monitoring and Evaluation	0.910	1.77	4 th

Source: Author's Construct (2016)

Last but not the least of the study objectives is to find out the importance of small scale contractors training needs, On the training needs of the small local contractors, respondents identified the following and ranked them as follows with (1) being the highest and (8) being the least. The table above show the mean scores and standard deviations which was ranked by their mean scores. “knowledge in contractual claims preparation and negotiation skills” and “proper understanding of change orders” was ranked first with a mean score of 2.03 and standard deviations of 1.071 and 0.910 respectively.

Regular procurement of works was ranked second with a mean score of 1.86 and standard deviation of 0.810. The third ranked among the factors is “accurate preparation of estimates for works and tender pricing” with a mean score of 1.83 and standard deviation of 0.954. The fourth ranked factors were; “knowledge and application of contract administration and law”, “good understanding of overheads” and “works programming, progress monitoring and evaluation” with a mean score of 1.77. this finding indicates that knowledge in claims and negotiation is paramount for small contractors as stated by P. Larcher (1998) there is the need for training for scale contractor capacity on knowledge and contract claims preparation. Again, the challenges the small contractor face ranged from proper understanding of change orders, regular acquisition of jobs to negotiation skills and claim

preparation as top most training needs indicating that much need to be done in that direction.

Table 4.9: Challenge Factors (FINANCIAL MANAGEMENT)

ITEM	FINANCIAL MANAGEMENT	STANDARD DEV	MEAN	RANKS
A	Slow and non-Payments	1.014	1.83	4 th
B	insufficient working capital	0.845	1.86	3 rd
C	Low profit margin due to Competition	1.039	1.74	6 th
D	No cash flow management system in place	1.124	2.17	1 st
E	Low valuation of works done	1.029	2.03	2 nd
F	Unwilling suppliers to grant credit for materials	1.098	2.03	2 nd
G	Inadequate/non- payment of fluctuations	0.942	1.77	5 th
H	Diversion of funds for other things	0.904	2.03	2 nd
I	Unstable market conditions- Inflation	1.124	2.03	2 nd
J	Improper preparation of financial statements and audited accounts	0.817	1.74	6 th
K	High interest rates from banks and other financial institutions	1.061	1.86	3 rd
L	Inability/ difficulty to provide securities	1.224	2.03	2 nd

From the table above, it is found out that “no cash flow management system in place” among financial management factors is first in the ranking, with a mean score of 2.17 and standard deviation of 1.124, as shown in the table above. This was followed by “low valuation of works done” “diversion of funds for other things”, and “inability/ difficulty to

provide securities” which was all ranked second with a mean score of 2.03 and standard deviations of 0.904, 0.124 and 0.124 respectively.

The third ranked among the factors was “insufficient working capital” and “high interest rates from banks and other financial institutions”. This was represented by a mean score of 1.86 and standard deviations of 0.845 and 1.061 respectively.

The fourth rank was “slow and non-payments” with a mean score of 1.83 in that order.

The least ranked was “others” with a mean score of 1.33 and standard deviation of 0.577.

The finding corroborates Ugochukwu and Onyekwena (2014) study which identified diversion of funds as challenges of Small contractors.

Table 4.10: Managerial Skills

ITEM	MANAGERIAL SKILLS	STANDARD DEV	MEAN	RANKS
A	Lack of use of Project management techniques	0.860	1.56	8 th
B	Lack of Managerial development as company grows	0.618	1.74	5 th
C	Lack of Procurement management skills	0.806	1.68	6 th
D	Lack of familiarity with estimating techniques and tendering procedures	0.779	1.62	7 th
E	Lack of leadership and communication skills	1.128	2.22	1 st
F	Lack of negotiation techniques for claims against contract variations	0.998	1.94	3 rd
G	Delay in completing works on schedule	0.779	1.62	7 th
H	Lack of site management techniques	0.968	2.06	2 rd
I	Lack of diligence in physical records	0.913	1.88	4 th
J	Bad company organization and policy regulation	0.980	1.74	5 th

From the table above, “lack of leadership and communication skills” among managerial factors is top challenge, thereby ranking this first with a mean score of 2.22 and standard

deviation of 1.128. This was followed by “lack of site management techniques” which was ranked second with a mean score of 2.06 and standard deviation of 0.968. The third rank among the factors was “lack of negotiation techniques for claims against contract variations. This was represented by a mean score of 1.94 and standard deviation of 0.998. The fourth rank was “lack of diligence in physical records” with a mean score of 1.88 in that order. The least rank was “lack of use of project management techniques” with a mean score of 1.56 and standard deviation of 0.860 supporting Bob Muir findings that contractors or their employees need to be conversant with these requirements.

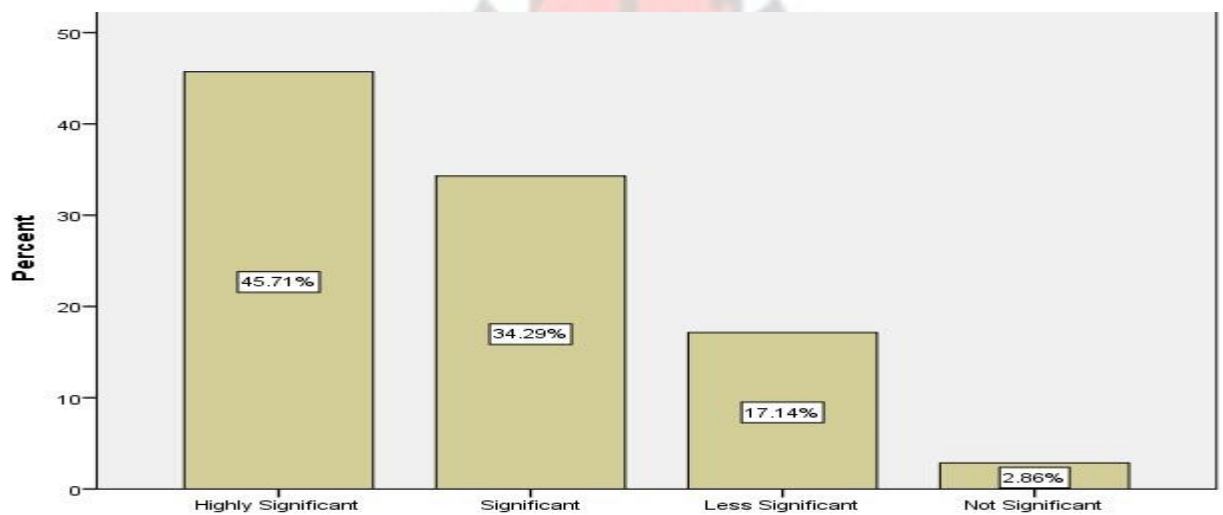


Figure 4.4: Tendering Skills

Source: Author’s construct (2016)

The diagram above indicates how significant challenges of small scale contractors affect the development capability of small-scale contractors. From the diagram about 45.71% of the respondents indicate that unrealistic pricing for tenders due to competition or lack of skills is “highly significant”. Also about 34.29% of the respondents indicated that unrealistic pricing for tenders due to competition or lack of skills is “significant”,

17.14% indicate “less significant” and 2.86% indicate “not significant”. Therefore, unrealistic pricing and lack of skills affects small scale contractors. This result corroborates findings by Mafimidiwo (that unrealistic pricing is a challenge for smallscale contractors.

4.8 Market Conditions

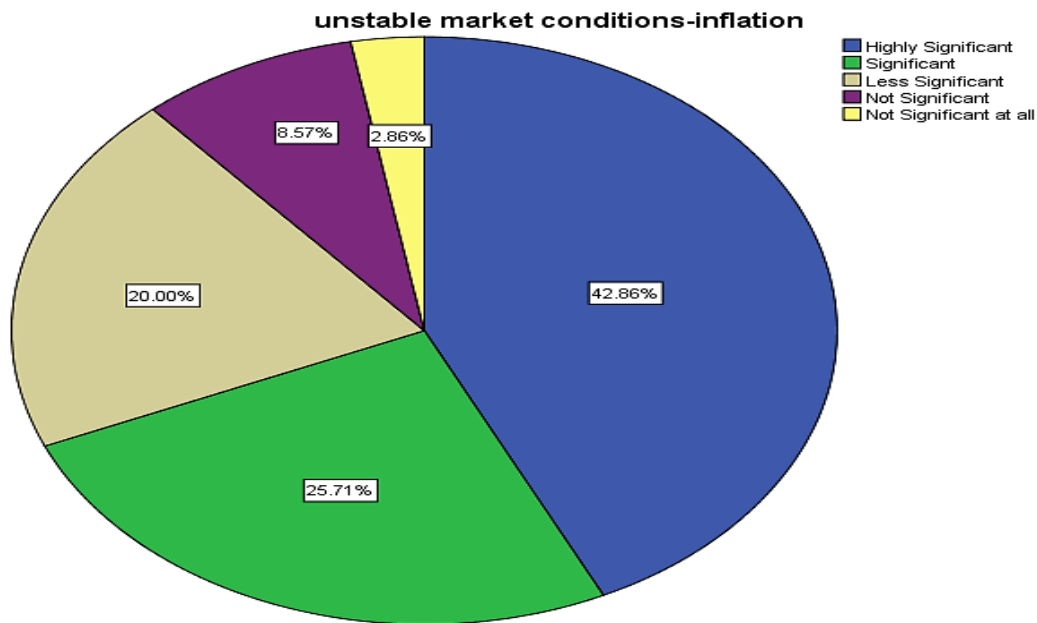


Figure 4.5: Market Conditions

From the diagram about 42.86% indicates how significant challenges of small scale contractors affects the respondents indicate that unstable market conditions-inflations are “highly significant”. Also about 25.71% of the respondents indicate that unstable market conditions (inflation) is “significant”, 20% indicate “less significant”, about 8.57% indicate “not significant” and about 2.86% indicate “not significant at all”. Hence unstable market conditions(inflation) affects small scale contractors since majority of the respondents indicate highly significant.

The diagram above indicates the level of importance of small scale contractors needs for sustenance and growth. From the diagram about 41.18% of the respondents indicate that government must assist in small scale contractors’ sustenance and growth is “necessary”.

Also about 32.35% of the respondents indicate that government must assist in small scale contractors' sustenance and growth is "very necessary", 20.59% indicate "less necessary" and about 5.88% indicate "not necessary". Hence government must assist in small scale contractors' sustenance and growth is very necessary since majority of the respondents indicate very necessary. This is line with Ihua and Siyanbola (2012), that market conditions affect small scale contractor development.



CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter consists of conclusion and recommendations of the responses of some managers, quantity surveyors, supervisors and other staffs of small-scale construction firms in Tamale metropolis with the aimed of gathering data on the challenges and assessment of growth needs of small scale construction firms in Ghana. It involves background information of respondents with regards to the challenges and assessment of small scale contractor's challenges and needs.

5.2 Summary of Findings

Findings from the research indicated that small scale contractors actually need support from government and refresher courses in contract claims calculation to enable them make enough profits so to enable them grow as stated by (Jacqueline 2014), in the literature review. Again small-scale contractors face the problem of skilled site personnel, contracts in the public sector not usually won on merit as some of the challenge factors. Finally, small scale contractors need training in accurate preparation of estimates for tenders.

5.3 Conclusions and Recommendations

This chapter deals with the conclusions and recommendations made from the data analyzed in chapter four (4) above. This is followed by appropriate suggestions made towards addressing the needs and challenges of small scale construction firms in the country.

5.4 Conclusion

From the analysis in chapter four, the following conclusions were made:

- ✓ Analysis on the level of importance of some statements in relation to small scale contractors needs for sustenance and growth indicate that it is necessary that government assist in small scale contractor's sustenance and growth.
- ✓ Analysis to identify how significant the challenges affects the development capabilities of small scale contractors revealed unrealistic pricing for tenders due to competition or lack of skills as highly significant to the challenges affecting developmental capabilities to small scale contractors. Delay in completing works on schedule was also identified as highly significant (51.4%). It was also revealed that lack of project management techniques significantly affects small scale contractors (representing 60%).
- ✓ The study also revealed suggested methods of operations for small scale contractors in area of construction business management and ranked proper application of project management methods to works as "important" (representing 54.3%). Good preparation of project cash flow and financial appraisal was also an important method suggested for operations of firms and several others from the analysis.
- ✓ Analysis also find out the importance level of small scale contractors training needs and indicate that works programming, progress monitoring and evaluation as "highly important" to the training needs.
- ✓ The claim that change of government affects the growth of small scale contractors was proportionally "disagreed" by construction firms (representing 42.9%) from the analysis.

The analysis finds out that the claimed that contractors pay bribes before being offered projects and indicate that 40% of respondents (including Managers, Quantity surveyors,

Supervisors and other workers), 28.6% do not accept the claim and 14.3% accept that contractors pay bribe before job offers.

5.4 Recommendations

- It is recommended that government should assist small contractors overcome the challenges identified so as to sustain their business operations and possibly grow to international level.
- The small scale contractors should coordinate their activities.
- Tendering activities should be done by professionals like quantity surveyors for small contractors.
- Periodic training in areas of construction resource management and project management.
- Financial support in the form of loans will enable small contractors develop their skills instead of making decisions based on experience and intuition.
- A level playing field for all Ghanaian small contractors will grow genuine entrepreneurs irrespective of the government of the day.

5.5 Limitation of the Study

The study was not able to cover all what was intended due to constrain of time. There were also some difficulties in retrieving of questionnaire initially. Time was of essence during the period of the research as such, the scope was limited to only the Tamale Metropolis. Financial constraints were also a limiting factor in the course of the study

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APPENDIX

QUESTIONNAIRE

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI.**

Department of Building Technology. Faculty of Built Environment.

**A study into Challenges and assessment of growth needs of small -scale construction firms
in Ghana.**

Dear Sir/Madam

Challenges and Assessment of Growth Needs of Small - Scale Construction Firms in Ghana

The following questionnaire is aimed at gathering data on the Challenges and assessment of growth needs of small scale construction firms in Ghana. This data is to be used in building dissertation on the above subject to fulfill the partial requirement for the award of a MSc. Programme in Construction Management. The research aims at assessing the Challenges and assessment of growth needs of small scale construction firms in Ghana. I would like to seek your opinion on Challenges and assessment of growth needs of small scale construction firms in Ghana by completing this questionnaire.

The information obtained will be used along with other respondents in the assessing and examining the challenges and growth needs of small scale contractors. The outcome of the study will provide feedback on the challenges and growth needs in terms of small scale construction business management and techniques for growth in the construction sector.

I will therefore appreciate your honest opinion and at the same time assuring you that the information provided is for academic purposes and will also be treated with confidentiality.

Kindly return the completed questionnaire to the undersigned as soon as possible.

Thank you for your anticipated co-operation and maximum contribution.

Yours faithfully

Supervisor Prof. Bernard Baiden

Baba Issah Sulemana

Email address: issahbaba49@gmail.com Mobile No; 0242266068/0200322341 (A)

1. Which of the following options does your company belong to?

- Public sector Private Sector public sector employee private sector

Contractor classification MWRWH.....

2. How many years has your company being in business? 1-5yrs 5-10yrs

- 10-15 yrs. 15 – 20 20 yrs. and above

3. What are the types of project(s) you usually undertake?

Residential Health Educational projects sanitation

Other (please specify).....

4. From which sector do you mostly secure your jobs? Private Sector Public sector

Both

5 How often do you secure jobs? Regular very regular

Irregular very irregular

6. when was your last time of securing a job? This year 1yr ago

2 yrs ago 3-4yrs ago any other.....

7. As a small-scale contractor from which of the following tendering method(s) do you mostly procure your projects?

Open Competitive Selective Price Quotations

Single Sourcing Other (please specify).....

(B) CONTRACTORS

8. Please indicate the level of importance of the following statements in relation to smallscale contractors needs for sustenance and growth

Please use: 1= Very necessary; 2 = necessary; 3 = Less necessary; 4 =Not necessary; 5= Not necessary at all

Item	Statement on needs	Response				
		1	2	3	4	5
1	Engaging construction professionals help improve performance of contractors					
2	Construction professionals need be to employed on permanent bases					
3	Refresher courses opens skills of small-scale contractors to overcome difficulties					

4	Professional skills are sought in the tendering processes for projects					
5	Professional quantity surveyors and engineers must be employed to enable the small-scale contractors sustain business					
6	Government must assist in small contractor's sustenance and growth					
7	Small scale contractors need to employ professionals in other to stay in business					
8	Proper Classification of small-scale contractors affects their performance					
9	Business management knowledge is the only skills needed to sustain and grow small-scale construction business					

(C) Challenges of small scale contractors

9. Indicate how significant the following challenges affect the development capabilities of small-scale contractors.

Please use: 1= Highly Significant; 2 = Significant; 3 = Less Significant;
4= Not Significant; 5 = Not Significant at all

Item	Challenges	Response				
		1	2	3	4	5
	Technical factors					
1	Lack of adequate knowledge in estimating and tendering for projects					
2	Unrealistic pricing for tenders due to competition or lack of skills					
3	Inadequate computer operating skills					

4	Lack of knowledge in Cash flow and accounting operations					
5	Unrealistic demands from clients					
6	Inadequate or no knowledge with programming software - Microsoft project etc.					
7	Lack of skilled site personnel					
8	Complex nature of the construction work					

(D)

Item	Managerial skills	1	2	3	4	5
1	Lack of use of Project Management techniques					
2	Lack of Managerial Development as company grows					
3	Lack of Procurement Management skills					
4	Lack of familiarity with estimating techniques and tendering procedures					
5	Lack of leadership and communication skills					
6	Lack of negotiation techniques for claims against contract variations					
7	Delay in completing works on schedule					
8	Lack of site management Techniques					
9	Lack of diligence in physical Records					

10	Bad company organization and policy regulation					
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(E)

item	Financial management					
1	Slow and non-Payments					
2	insufficient working capital					
3	Low profit margin due to Competition					
4	No Cash flow management System in place					
5	Low valuation of works done					
6	Unwilling suppliers to grant credit for materials					
7	Inadequate/non- payment of fluctuations					
8	Diversion of funds for other things					
9	Unstable market conditions- Inflation					
10	Improper preparation of financial statements and Audited accounts					

11	High interest rates from banks and other financial institutions					
12	Inability/ difficulty to provide securities					

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(E) SMALL-SCALE CONTRACTOR TRAINING NEEDS

Please Rank with the following level of importance:

1= Highly Important; 2 = Important; 3 = Less Important; 4 =Not Important;

5= Not Important at all

item	Training needs	1	2	3	4	5
1	Accurate preparation of estimates for works and tender pricing					
2	Regular procurement of works					
3	Proper application of project management methods to works					
4	Good preparation of project cash flow and financial appraisal					
5	Knowledge and application of Contract Administration and Law					
6	Knowledge in contractual claims preparation and negotiation skills					
7	Good understanding of overheads					
8	Proper understanding of change orders					
9	Works Programming, Progress Monitoring and Evaluation					

10	Other (Please specify).....	
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F. The business environment

Please indicate how you agree to the following statements

5 Strongly Agree: 4 Slightly Agree: 3 Agree 2. Disagree 1. Don't know

Item	Business environment	Strongly Agree	Slightly Agree	Agree	Disagree	Don't Know
1	Contracts in public sector are mostly not won on merit					
2	Some contractors pay bribes before being offered projects					
3	Tender prices are predetermined for contractors					
4	Tenders are not competitive					
5	Change in government affects the growth of small scale contractors					
6	Payment process is unusually long					

G. PERSONAL DATA OF THE RESPONDENTS

11. Your Sex Male Female

12. Age..... years

13. Years of Working in the

Company.....

14. Position in the Company

15. Level

education.....

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May God richly bless you all. Thank you sincerely.

