

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

**ASSESSING GROWTH STRATEGIES OF RAPID DEVELOPING
CONSTRUCTION FIRMS IN GHANA.**

BY:

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A dissertation submitted to the Department of Building Technology,
College of Art and Built Environment
in partial fulfilment of the requirements for the degree of

MASTER OF SCIENCE CONSTRUCTION MANAGEMENT

NOVEMBER, 2015

CERTIFICATION

This is to certify that, no part of this **Dissertation** has ever being submitted to this University nor any other University or body whether for the purpose of assignment, publication or for any other purpose. I therefore declare that except for references to work of other researchers which have been duly cited, this project work consist entirely of my original research finding and that no part of it has been presented for another award elsewhere.

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ABSTRACT

The construction industry plays a significant role in any economy and its activities are also vital to the achievement of the socio-economic development goals of providing shelter, infrastructure and employment. The falling standard of construction firms, as a results of high risks which has led to failures coming from the sensitivity of the industry to economic cycles, the high levels of competition and reduced job opportunities. Despite this falls, many firms has manage to strengthen their capacity in the industry, and this study was directed towards investigating the strategies adopted by rapid developing construction firms within the industry. The study focuses of on, identifying

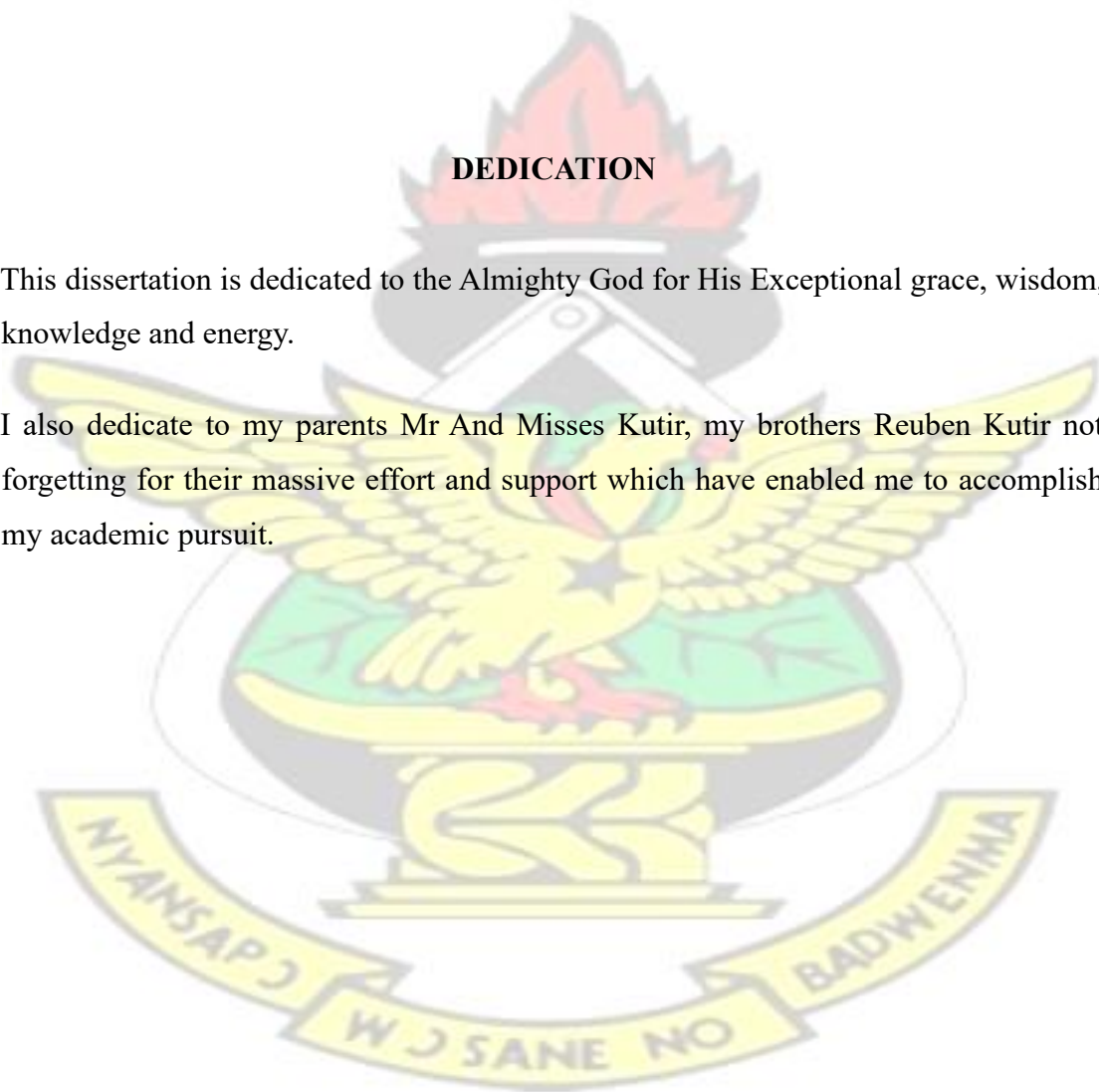
growth indicators in rapid developing construction firms, the factors that lead to growth in rapid developing construction firms and to measure the strategic performance of successful construction firm based on identified growth factors, so that reasons for success and failure could be systematically identified. Thus, this will expose best practices for improvement. . A questionnaire survey was conducted among building contractors who were purposively selected to elicit information pertaining to their adopted strategies. The study was carried out along the tenets of a preliminary literature review and followed by a survey using a structured interviews and structured questionnaire. The data collected was analysed using Descriptive Statistics and Analysis, and Relative Importance Index (RII) method. The findings reviews that, rapid developing construction firms employ certain factor in their businesses to grow and enhance competitiveness in the construction industry. These factors include, management practices and the application of strategic management practices. . This study is very useful and helpful for local firms who are planning to increase their capacity and build surviving business strategy.

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DEDICATION

This dissertation is dedicated to the Almighty God for His Exceptional grace, wisdom, knowledge and energy.

I also dedicate to my parents Mr And Misses Kutir, my brothers Reuben Kutir not forgetting for their massive effort and support which have enabled me to accomplish my academic pursuit.



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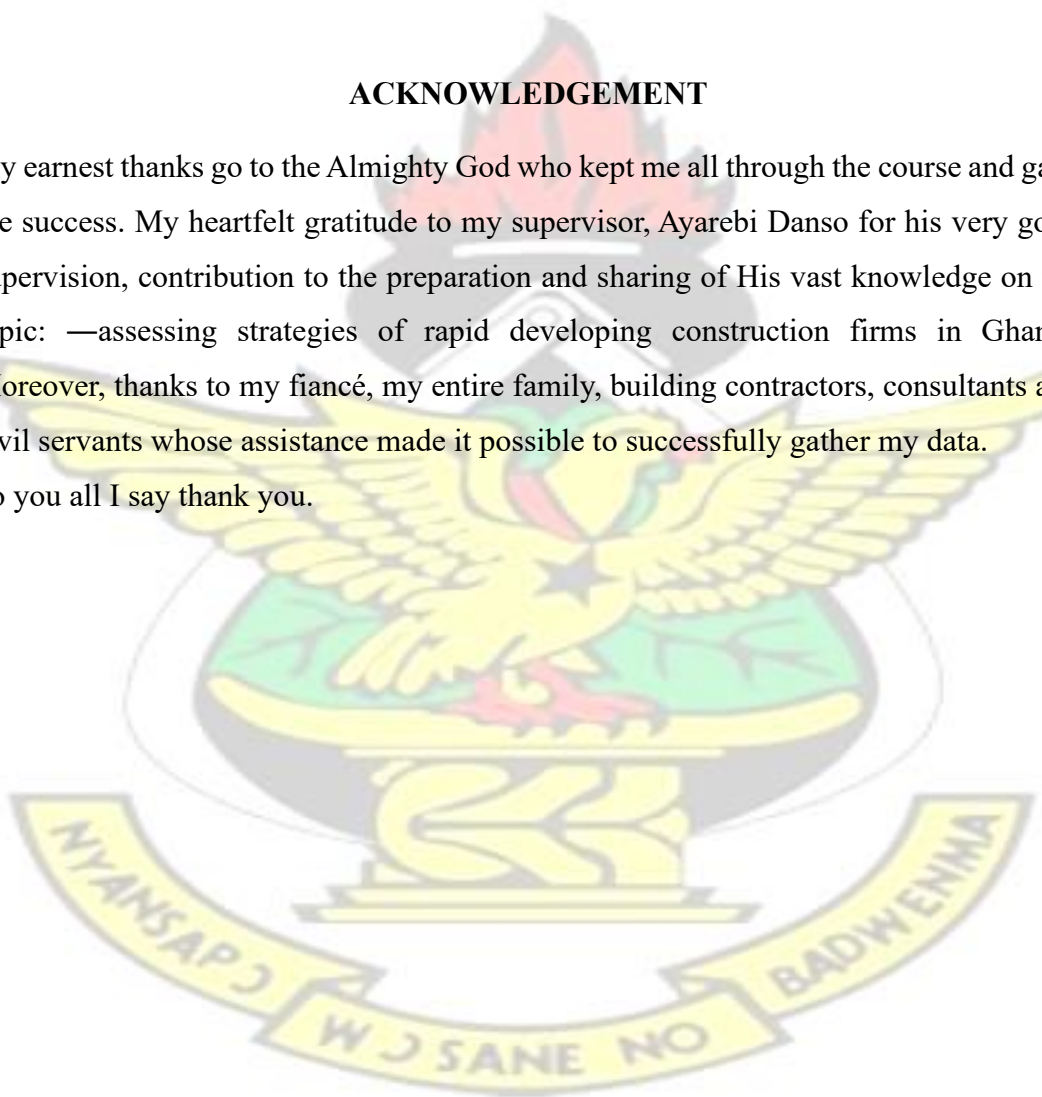


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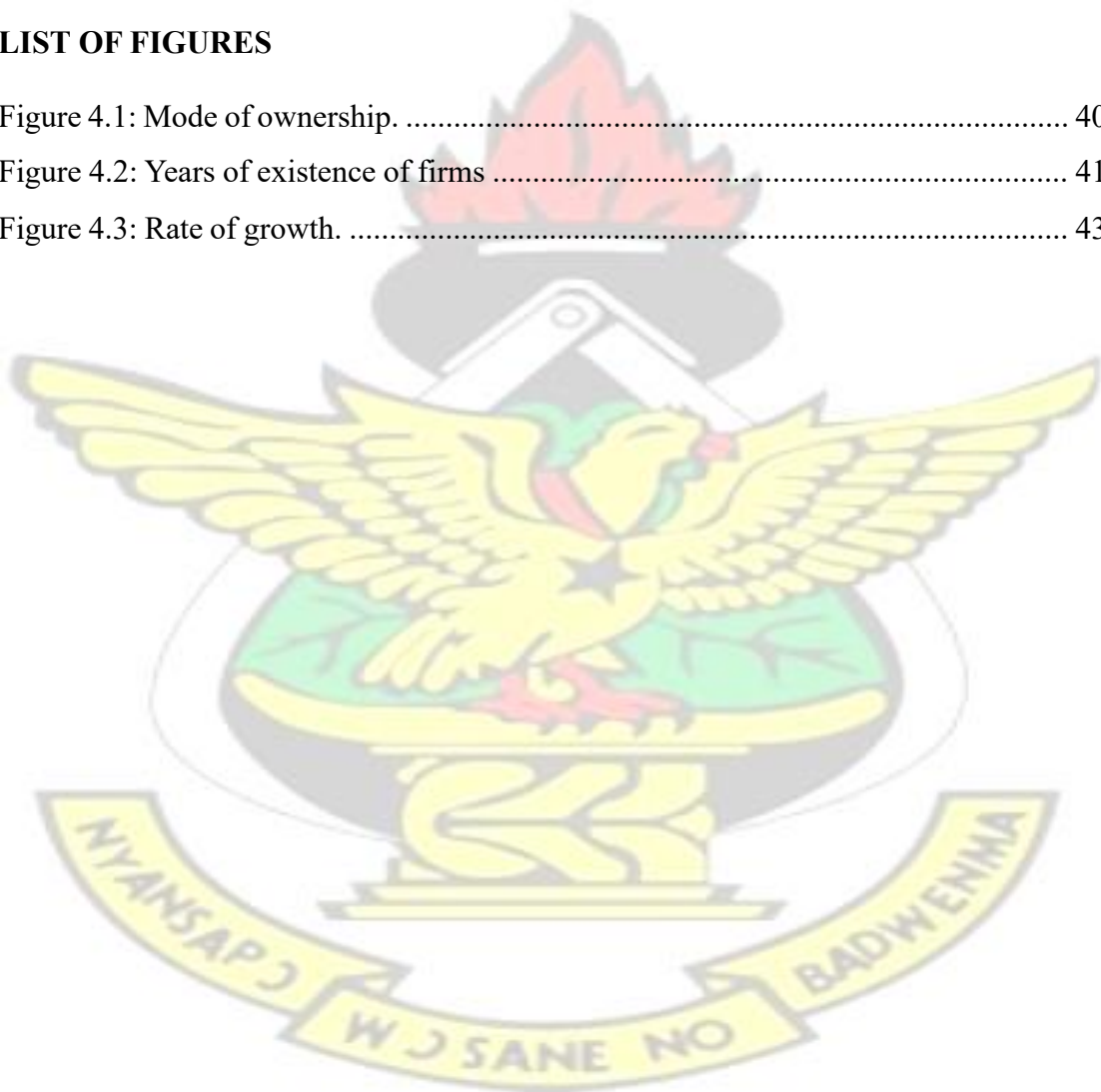
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CHAPTER ONE

GENERAL INTRODUCTION

1.0 Background Information

The construction industry plays a significant role in any economy and its activities are also vital to the achievement of the socio-economic development goals of providing shelter, infrastructure and employment (Danso, 2010). According to Dansoh (2005), the industry is highly dynamic, and its operating environment, industry structures and product characteristics are changing at an ever-increasing pace. Studies show that, the construction environment becomes riskier in developing countries (Ezeldin and Sharara, 2006; Tah and Carr, 2000; Baloi and Price, 2003) and Ghana's construction industry is not an exception. Despite the attempts at industrialisation through import substitution and creation of enabling environment, the rate of achievement remains low (Kheni, 2008). This situation has created striving in assessing the effectiveness of development plans in Ghana.

The falling standard of construction firms in the construction industry is a global phenomenon and Ghana's construction industry is not an exception (Ahmed and Rafiq, 2003). The construction industry has very high risks. These risks, which could lead to failure, come from the sensitivity of the industry to economic cycles, the high levels of competition and reduced job opportunities. Implementation of strategies could be poor and unorganized, which increases the probability of a firms' failure. In construction, there are three parties involved, namely; owner, consultant, and contractor. The relationship between these parties is adversarial because each party has goals which conflict with the other party's goals (Donaldson, 1982.). For instance, the owner wants his project to be of good quality and at low cost, but this will reduce the profit of the

contractor. The consultant wants the project to be safe and attractive which could cause both the contractor and the owner extra expenses. Also the laborers hired by the contractor want their revenue to be higher with less effort. This is hardly given the competitiveness of prices in the construction industry. The relation among parties could be a major source of a contractor's failure (Ross, 1989).

Further, the industry attracts many people because of their belief of high profit, but when they enter the industry without strategies, they fail. Therefore, there are many contractors, but the successful and profitable ones are few (Ashby, Cummins and Bentley, 2000; Ling and Liu, 2005). It is therefore necessary to find out the causes of failures and the strategies adopted by the rapid developing ones. For any construction firm to exist in Ghana or elsewhere, it needs to register with a recognized body such as the Works and Housing or the Roads and Highway Ministry. Few developing countries operate a licensing or accredited scheme for contractors: an example of such countries is the Philippines (Kanji and Wong, 1998). In most developing countries, contractors seeking public projects are registered and categorized into project size classes (Kumar and Subramanian, 1997). Such as in that of Ghana, contractors are identified as A1B1, A2B2, A3B3, A4B4 and D1K1, D2K2, D3K3, D4K4 depending on their assets and experience; and each category depicts the type of work it can undertake. In Ghana, the Ministry of Roads and Highways have classified roads and bridge contractors' base on the following criteria; number of contractor's qualified permanent personnel, equipment inventory, previous project and the contractor's financial position. Generally, the requirements at the lowest (entry) level are very basic and there are virtually no barriers to the entry into construction. One may need a lot of strategies implemented however in order to grow from D4, K4 to D1,

K1contractors. Based on growth strategies, contractors may be promoted to higher project classes over time as they meet more stringent requirements and could also be demoted if their assets profile deteriorates or if their performance is unsatisfactory (Avots, 1969). . Growth in the construction industry is not just about the use of plant, equipment and tools, neither is it by chance but requires a lot of critical and strategic thinking (Cleland and King, 1988).

1.2 Statement of Problem.

In recent times, lack of adequate strategies (planning) has caused a lot of contractors to either fade out completely or trim down in the construction industry (Beckman, 1984). This has motivated the need to investigate the strategies of rapid developing but sustained construction firms thus to know why and how they got there. . Many contractors have tried preventing or solving such problem of trimming down but that is not without difficulties (Buzacott and Shanthikumar, 1993). Some of the obvious causes are mismanagement by some officials, over- expansion, non-payment by some clients, lack of technology, lack of plant and equipment, lack of capacity building mechanism, lack of qualified personnel, and non-payment of personnel and reluctance of contractors to employ and pay qualified personnel. With the accession that there is virtually no barrier to the entry into the construction industry, most of the contractors who enter into construction without any strategy to stay progress go down as soon as they enter the industry. Talk about the recent statement by the president of Ghana

Road Contractors Union —most of our contractors are going out of business and others bankrupt due to GeTFUND's failure to pay for works done (Ahmed and Rafiq 2003). Even though he attributed it to only failure of payment by GETFund, there is more to it. . For instance, if these contractors had plans and strategies, they would not have been experiencing setbacks. Fugar and Agyakwah-Baah (2010) advocated that, —most

construction firms in Africa easily diminish thereby leaving many employees jobless. These has motivated the research into the causes of failure of some of these firms as well as the strategies of rapid developing construction firms since a lot of people are left jobless and frustrated when these contractors trim down or collapse.

1.3 Aim and Objectives

1.3.1 Aim of Study

The aim of this project is to identify growth strategies of rapid developing construction firm.

1.3.2 Objectives

To achieve the aim, the following objectives were set:

1. To identify growth indicators in rapid developing construction firms;
2. To identify the factors that lead to growth in rapid developing construction firms; and
3. To measure the strategic performance of successful construction firm based on identified growth factors, so that reasons for success and failure could be systematically identified. Thus, this will expose best practices for improvement.

1.4 Outline of Methodology

The methodology utilized a two-stage approach; desk study and field research. Consequently, the research adopted both qualitative and quantitative approach of enquiry. A critical review of germane literature was conducted to discover the theoretical paradigms underpinning rapid developing construction firms. The information gathered from the Literature review, as well as the preliminary factfinding phase influenced the development of the questionnaires used for this study.

The second stage, field research, which targeted data and information collection. The data for the study were collected through a well-structured interview guide administered on two main categories of contractors in Ghana. The first group made up of building and civil engineering contractors who operate with licence from Ministry of Water Resources, Works and Housing (MOWRWH). The second group are the road contractors who operate with licence from Ministry of Roads and Highways (MRH). (Eyiah, and Cook, 2003; Dansoh, 2005). Professionals and experienced personnel at the Town and country Planning Departments and Estate Developers were also interviewed. The list of classes of contractors was sourced from the offices of the Association of Road Contractors, Ghana Highway Authority, Departments of Urban and Feeder Roads in Ashanti Region of Ghana, precisely, Kumasi Metropolis. Stratified random sampling was used to select the various segments of construction firms in the various ministries.

1.5 Scope of the study

Even though the problem is a Global phenomenon and even more prevalent in some countries and Regions, the study was conducted in the Kumasi Metropolis. Kumasi Metropolis was decided upon because more construction firms are located there and many construction firms seek to find green pastures in this city because of the increasing demand for housing facilities and other structures and the other economic benefits they enjoy. Notwithstanding, the researcher is also familiar with the area and therefore will be able to source credible information and data.

1.6 Justification of Study

The material will highlight the causes of failure and strategies of rapid developing construction firms in order to enrich the knowledge of other contractors.. The study will provide data for future use by other researchers as well as contractors, institutions and even Government.

1.7 Limitations of the Study

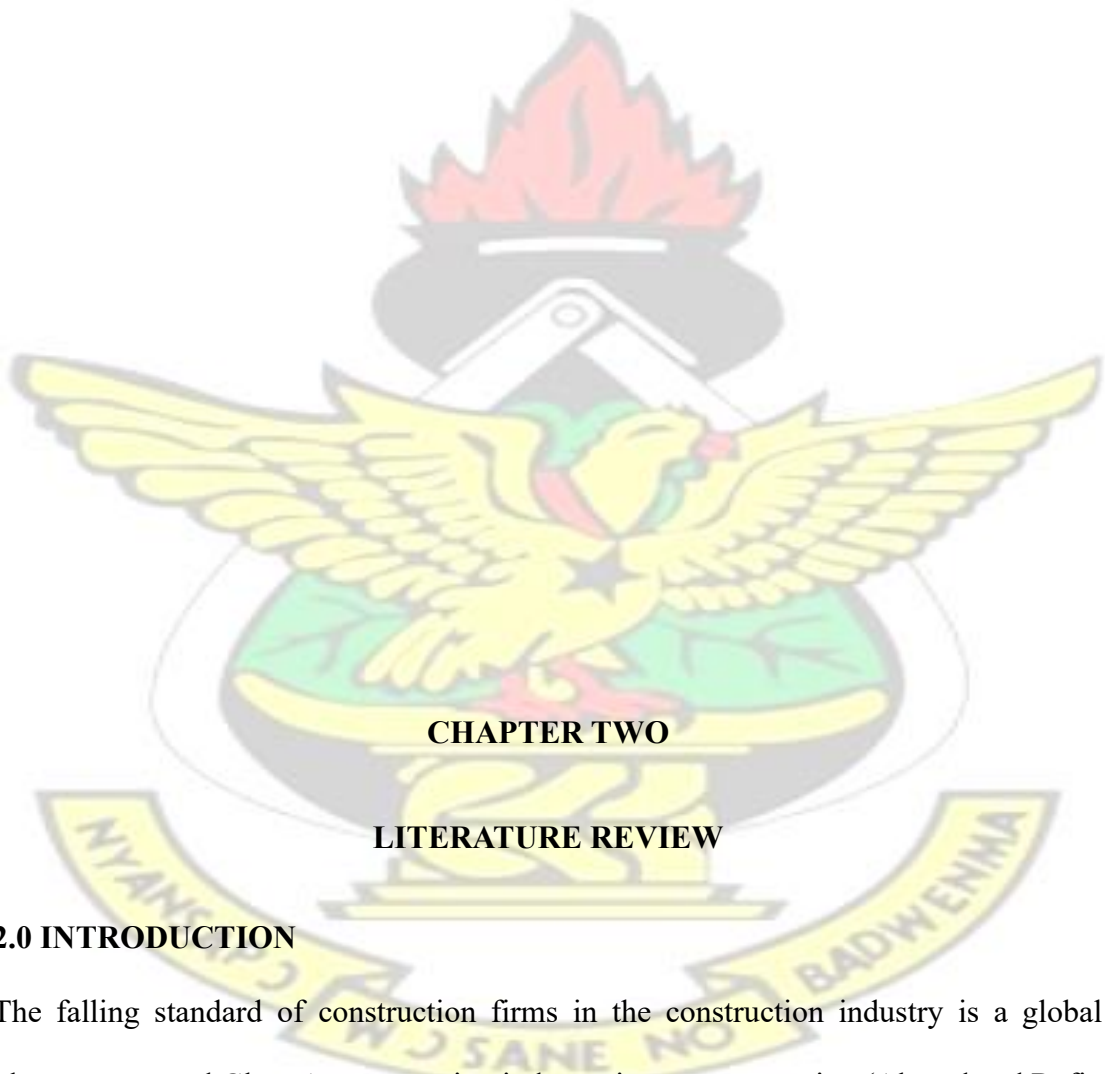
The researcher would have liked to cover all firms in Ashanti region however, this was not possible since most of these contractors did not have offices and some addresses given were misleading. Those that were interviewed cooperated but there were few who did not give much attention since the questions were detailed and needed time.

1.8 Organization of the Study

The structure of the thesis shall be divided into five (5) interdependent chapters, and shall follow the following outline. Chapter 1, "General Introduction" would present the background to the research and the problem necessitating the construction industry. The research aims, research questions, objectives, and scope are all contained in this chapter. Chapter 2; shall contain the literature review. The review shall provide an extended coverage on earlier works.

These aspects of literature shall be reviewed and attempt to tie them together. It shall discuss fully the growth indicators in rapid developing construction firms, the factors that lead to growth and strategic performance of successful construction firm based on identified growth factors in the construction industry. Chapter 3; shall focus on the research methodology and will explore the philosophical approach to the research and situate it within its appropriate jurisdiction. Detailed discussions will be provided on the data collection analytical tools that would be employed. Chapter 4 shall present the empirical analysis of data and discussions from the field survey that answered all the research objectives and questions. Chapter 5 shall be titled "Conclusions and Recommendations" shall be a summary of the entire research endeavour by reviewing the main contributions of the research to knowledge. Policy recommendations and limitations of the research shall also be outlined. Pointers as to where future research attempts should be directed shall also be clearly defined.

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CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

The falling standard of construction firms in the construction industry is a global phenomenon and Ghana's construction industry is not an exception (Ahmed and Rafiq 2003). There is evidence that some construction firms still face difficulties in the industry and its implication on the Nation's growth can never be undermined. Notwithstanding, In Ghana, between 1988 and 1998 the government through the

Building and Road Research Institute (BRRI) inaugurated Management Improvement Programme that was aimed at improving management capacity of small scale contractors. The programme was also aimed at equipping contractors with basic techniques to improve their performance at the operational level. In spite all these struggling to advance and formalise their structure and system to be more competitive, their ability to develop and expand to larger firms has been challenging over the years. According to Ofori (2001), citing Hillebrandt (1997), even though, problems of construction industries in developing countries are well researched and recommended proposals implemented, yet the results have been disappointing and the problems have persisted. Regardless of the efforts and resources sunk into the preparation of development plans in the past, many construction firms are still confronted with a litany of development problems (Frimpong, 2012). These and many others have really motivated the research into the causes of failure of some of these firms as well as the strategies of rapid developing construction firms since a lot of people are left jobless and frustrated when these contractors trim down or collapse.

2.1 OVERVIEW OF THE GHANAIAN CONSTRUCTION INDUSTRY

As a developing country located in the West Africa, with a land area of 238,537 square kilometres, and population of 23 million people, Ghana has great potential in the construction sector. The Ghanaian construction industry has been growing gradually over the years, through pursuing to be the gateway to West Africa and the champion of African excellence Chileshe and Boadua Yirenkyi-Fianko,(2012). The construction industry in Ghana, as in other parts of the world, is huge and a crucial segment in the economic development. Ghana National Commission for UNESCO Report (2010) there is construction, no matter what one does, as it cut across all sectors (Danso and Menu, 2013). Being among the top drivers of the Ghanaian economy, including agriculture,

manufacturing and mining, its importance cannot be overemphasized, especially as the country is one of the most active economically in West Africa. Asamoah and Decardi-Nelson (2014) advocated that, the construction industry contributes about 5% to 10% of Gross Domestic Product (GDP) to the country and employs nearly 10% of the working population. The construction industry plays a significant role in any economy and its activities are also vital to the achievement of the socio-economic development goals of providing shelter, infrastructure and employment (Danso, 2010). According to Ofori, (1980) the construction industry is responsible for the planning, design, construction, maintenance and eventual demolition of the building and works which enable economic and social activities to be performed. He further advocated that, it is essentially, a service industry, obtaining its inputs from various sectors of the economy, with which it is interrelated and interlinked in a complex manner. The construction industry has potential not only as means of meeting a country's construction needs, but also for upgrading a country's entire infrastructure. It is also seen as a vehicle for dispersing economic activity and raising income levels of the citizenry (Ofori, 1993). The industry is positively related to the Ghanaian economy since the government is the biggest client in the industry (Chileshe and Boadua Yirenkyi-Fianko, 2012). Nonetheless, according to Jaselskis and Talukhaba (1998), governments in developing countries have a direct influence on construction in both the public and private sector through behaviour, policies and legislation, a review on bidding considerations in developing countries. Thus, it is hard to disconnect the impact of government and politics on construction in Ghana (Laryea, 2010). For instance, a contractor who is not registered with the government ministries responsible for works and housing or road and transport will not be entitled to the award of any government project or contract. According to Dansoh (2005), construction firms in Ghana are categorized into four

financial classes according to size of individual projects they can bid for from government. Road contractors are designated as A1B1, A2B2, etc. and building contractors are designated as D1, D2, D3 and D4 (Dansoh 2005). The Ghanaian construction industry is complex in nature, representing a range of stakeholders (Dadzie *et al.*, 2012).

2.1.1 Contractor Classification in Ghana

The agency responsible for the registration of contractors (i.e., building and civil contractors) in Ghana is the Ministry of Works and Housing (MWWOH). The MWWOH does this in collaboration with the Registrar Generals Department under Act 179 (1963) of the companies' registration code (Amoah, Ahadzie and Dansoh, 2011). On registration, contractors are classified, based on a number of guidelines, including the following: plant equipment holding, financial standing, previous performance and technical expertise.

In Ghana, two bodies are mandated to assess and classify contractors according to laid down regulations. The two bodies are Ministry of Water Resources Works and Housing (MWRWH) and the Ministry of Roads and Highways (MRH). The MWRWH classifies contractors into D and K. D being for General Building Works and K for General Civil Works. The MRH classifies contractors as A, B, C, S and M. Class A contractors are for Roads, Airport Construction and Related Structures. B is for Bridges, Culverts and Other Structures. Class C is for Labour Based Road Works, S is for Steel, Bridges and Structures; and M for Maintenance and Rehabilitation. The Ministries further identify these contractors based on their financial classes as 1, 2, 3 and 4 with 1 being the highest and 4 the lowest financial standing. Correspondingly, building contractors are classified into four groupings: project worth up to \$75,000 (D4K4); project ranging from \$75,000-250,000 (D3K3); project worth \$250,000-500,000

(D2K2); and project over \$500,000 (D1K1) (Frimpong and Kwasi, 2013). Practically, a contractor could be identified as A1B1, A2B2, A3B3, A4B4 and D1K1, D2K2, D3K3, D4K4 (MRH and MWRWH 2001); and each category depicts the type of work it can undertake. A1B1 and A2B2 classified as larger firms, A3B3 as medium and A4B4 as small firms.

According to MWRWH bulletin, inclusion of a contractor's name in the Ministry's classification register is not compulsory, but then it is only those who are duly registered who can tender for government contracts. (Eyiah, A.K and Cook, 2003).

The classification is summarised on Table 2.1 below:

Table 2.1 Classification of Ghanaian Contractors

Category	Description
A	Roads, Airport, and Related Structure
B	Bridges, Culverts and Other Structure
C	Labour Based Road Works
S	Steel, Bridges and Structures
M	Maintenance and Rehabilitation
D	General Building works
K	General Building works

Source: Ministry of Water Resources and Ministry of Roads & Highways (Ghana)

2.1.2 Culture and Status

According to Oakland, (2004) culture in any business is the beliefs that permeate the organization about how businesses conduct and how employees should behave and be treated. He further listed the following as some of the components that determines the culture of an organization:

- Behaviours founded on people interaction
- Norms ensuing from working groups
- Overriding values adopted by the organization
- Rules of the game for ‘getting on’

The dominant cultural norms endorsed by societal cultures induce leadership behavioural patterns and organizational practices that are differentially expected and viewed as legitimate among cultures (Amponsah, 2010). The Ghanaian construction industry is likely to be influenced by the societal culture. Thus the attributes and behaviour of firms are, in part, a reflection of the organizational practices which in turn are reflection of societal cultures (Kopelman, Brief and Guzzo, 1990).

According to Ahadzie (2010), the Ghanaian construction industry could be described as being at the cross road. After 58 years of independence typical rural construction practices remain virtually unchanged from what pertained in the colonial times, when current standards are examined within the context of contemporary global construction practices. Alternatively, while urban construction has integrated into modern tenets, the form of construction practices still appears relatively very elementary technologically unsophisticated and outmoded. The construction industry is slow in adapting new technologies to expand its margin. However, Henderson and Ruiker (2010) concluded that the degree of technology implementation success depends on the degree to which to which changes are planned, managed and evaluated. Thus, technology implementation within construction organizations is not so much a technological problem as it is a human behavioural one (Adusa-Poku, 2014).

The construction industry is one of the most highly regulated industries in Ghana. Contractors find themselves interfacing with national, regional and district bureaucracies

at all levels of a project: to obtain building permits, to have work inspected; and to have the completed project certified good for possession. Since the government is the client, contractors deal with additional bodies in the layer of the bureaucracy to have their work supervised and valued and to follow-up payment certificates (Eyiah, 2004). The Ghanaian construction industry is composed of both foreign companies and host-country nationals. Thus, many projects are, in effect, multicultural work covering expatriates and nationals. Activities in the Ghanaian construction may be classified as formal and informal. He further argues that, the informality is as a result of the absence of regulations to some industry in the country.

2.2 STRATEGIC MANAGEMENT

Many authors of the literature have emphasised strategic management in the face of globalisation, changing technology, integrated economies, changing workforce and the need to develop (Chinowsky 2001; Dansoh, 2005). The strategic management process in construction companies as found in the strategic management literature (Price and Newson, 2003; Venegas and Alarcón, 1997) can be summarised as follows:

- Surveying the external and internal environments of the company.
- Developing a strategy by formative and appraising alternative strategic options and choice of future courses of actions; and
- Selecting the ideal strategy and effecting it.

Venegas and Alarcón (1997) provide a structured path and techniques of analysis. The advantage of a structured procedure is to force a logical thinking through the process of strategic management, which may be well suited to businesses with formal and structured approaches to organisational functions. Strategic planning within the construction industry help sustained competitiveness in the industry. Competitiveness is what keeps organizations growing ahead of their competitors in the construction

industry. Rothaermel, (2012) pointed out that, companies performs financially better than other companies in the construction industry, when it has a competitive advantage. More importantly, through strategic planning thorough knowledge and analysis of the general and competitive organizational environment decisions are made right. Further, being able to conduct SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats), firms should make best possible utilization of strengths, minimize the companies weaknesses, utilizes opportunities from the business environment while embraced the threats.

According to Stoney (2001), strategic management has advanced into more cultured and probable more powerful tool. Thus, requires competent individuals to ensure it success (Stahl and Grigsby, 1992). The dynamic nature and its operating environment as Dansoh postulated, requires competent and vigilant to be able to cope with these circumstances. The Ghanaian construction industry is undertaking a major advancement and transition, while some other firms are still lagging behind the scene of transition. Thus, Lessing its call as a research context. Consequently, current studies in the developing countries like Ghana have established that few construction firms have, until recently, employed recognized processes to develop long-standing strategies. Studies by Betts and Ofori (1992) reveals that, the long term survival of most good standing consruction companies or any organization depends upon effective strategic management based on sound strategic planning.

2.2.1 Strategic Management development

The modern tendency of the construction industry is currently stirring towards higher, in that firms are forced to improve the quality of their service (Hasegawa, 1988). According to Sui Pheng and Hui Hong, (2005), the advancement towards quality has brought about: the increasing knowledge of clients (Ofori, 1994) being that, some

clients have international assets and attentiveness in construction activities. Clients are demanding better quality of service from contractors based on the fact that, they often find themselves paying higher prices for faulty works that do not placate their needs, and this result in disputes that result in higher cost to the client at the end of the day. Correspondingly, Juran and Gryna, (1993) opines that, in all —quality is what satisfies the client.

In today's highly modest business environment, budget-oriented planning or forecastbased planning methods are insufficient for most construction firms to survive and prosper. According to Bakar *et al.*, (2011) strategic management is planned to effectively and efficiently relate the organization to its environment. Construction companies have been known to plan their survival by using economic, technological and social forecasts as a basis for decision that shape the company's future (Dansoh, 2005). The environment according to Pearce and Robinson, (2000) includes political, social, technological and economic elements. As such, with any changes in these factors, the dynamic nature of the environment of the firm becomes insecure as the firm adjust to new circumstances. Further Dansoh advocated that, in the construction industry, competitive firms that are in good standing in the long term are those with the commitment to constantly monitor the external condition of market environment, and parade the flexibility to fine-tune policies and practices even when business condition makes this problematic in the short term. Many authors have introduced strategic management models, even though according to literature, each model of strategic management is different. Yet, the actions or activities that are involved are actually similar. Strategic management process can be divided into three phases (Bakar *et al.*, (2011). These are: the formulation phase; implementation phase; and the evaluation and control phase. Certo and, Peter and Ottensmeyer, (1991) concluded that the formulation

phase involves strategy that aim at ensuring that organization achieves their objectives. Further, this includes the unchanging values and purpose of the firm and forward visionary goals that guide the pursuit of opportunities. Successful analysis in the environment is followed by creation of long term objectives and directs the goal that could expand the firm's competitiveness in the long run. According to David (2001), it involves choosing the business to develop, how to streamline resources without hostile overthrows and whether to penetrate the international markets. He also advance that, strategic formulation phase involves mission statement growth, opportunities being identified from the external environment and threats, determination of internal strengths and weaknesses, establishing long term objectives, developing several strategies and choosing the best one to implement.

The second stage which the implementation phase according Pearce and Robinson, (2000) deals with initiating activities in accordance with strategic plans. At this stage, the managerial skills are more imperative than using analysis. Communication in strategy implementation is essential as new strategies must get support all over organization for effective implementation. For instance, David's revealed six (6) steps in implementing strategic management: Setting annual objectives; Setting annual objectives; allocating resources to strategically important areas;

Changing organizational structure to meet new strategy; managing resistance to change; and Introducing new reward system for performance results if needed. Certo and, Peter and Ottensmeyer, (1991) postulated that, without efficient strategic implementation, organizations are inept to reap the profits of carrying out an organization analysis, creating organizational direction, and formulating organizational strategy. Implementation must be monitored to be successful. Measuring performance is another important activity in strategic control,

performance has to be measurable and comparable. . According to Bakar *et al.*, (2011) reviewing current strategies, measuring performance and taking corrective is strategic evaluation and control. Thus, strategic evaluation is required because success today is no assurance of success tomorrow.

2.2.2 Strategic management in the construction industry

Technology, communication, and market improvements are basically shifting the global outlook of time, distance, and spatial boundaries (Chinowsky and Meredith, 2000) and developing countries like Ghana can never be exempted from this current trend. Further, many authors have carried out studies on strategic management practices in the construction industry, yet the rate of adoption in the construction context remains limited and lags behind that of other countries. While, some construction firms have been effective in responding to changing needs and opportunities, using technological innovation and contractual development to create competitive advantage, other have failed by being static (Betts and Ofori, 1992). In that, firms fear that they will be left behind by their competitors than for a credence in the profits of innovation (Kesting, 2007). According to Price and Newson, (2003) given the relatively low level of strategic activity within the construction organization, the suitable knowledge and skills still need to be advanced. Many extensively used tools and techniques are connected with the strategy process. Construction organizations need to expand their use of such tools and techniques while ensuring that they are well-matched to the needs of the organization and the business environment within which it functions.

2.3 COMPETITIVENESS OF THE CONSTRUCTION INDUSTRY

Competitiveness is generally been used in economics and business management, predominantly in the perspective of national competitiveness. Notwithstanding, The

World Economic Forum (WEF) and the International Institute of Management Development (IMD) publish competitiveness reports yearly to determine the competitiveness of different nations (Yongtoa, 2008). According to him, the concept of competitiveness can be viewed from three levels, and these are: National Competitiveness, Industrial Competitiveness and Firm Competitiveness.

According to Scott and Lodge (1985), national competitiveness is defined as *—the ability of a country to create, produce, distribute and/or service product in international trade while gaining increasing its margin on its resources*. Further, industrial competitiveness is company or industry ability to meet challenges posed by foreign competitors (IMD, 2004). Firm competitiveness according to Ivancevich *et al.*

(1997) is *“the magnitude to which a firm can, under free and fair market conditions, produce goods and services that meet the test of international markets while concurrently sustaining or increasing the real incomes of its employees and owners*”.

The construction industry remains critically competitive as new firms penetrate. Yongtoa, (2008) advocated that, the threat of entry depends on both entry and exit barriers. Thus, industries with extensive barriers can provide protection to its existing firms. Further, industries suffer low margins as a result of the emergence of many competitors when there is low entry and exist barriers. A research conducted by Yongtoa in Hong Kong reveals to the fact that, large international firms dominate the industry hence, in order to keep sustainable development and high returns and mitigating the influx of foreign domination in the sectors, contractors tends to take strategic alliance instead of reactive strategic moves, such as joint venture, partnership, and especially in large construction projects.

In the Ghanaian construction industry large international and localized contractors dominate the sector, and majority of the local main contractors are small and medium size, and are mostly family-owned companies operating in the market for many years. Thus most local small and medium contractors are left to intensively compete with each other in the private and public building sectors. According to Yongtoa, (2008), internal resources and capabilities, technology and innovation, financial capability, marketing capability, project management skills and organization and human resources provides contractors an edge in competition.

2.4 CONSTRUCTION INDUSTRY AND CHALLENGES

The falling standard of construction firms in the construction industry is a global phenomenon and Ghana's construction industry is not an exception (Ahmed and Rafiq 2003). There is indication that some construction firms still face difficulties in the industry and its implication on the nation's growth can never be undermined. Over the last few decades, there has been much research into the factors that affect performances of contractors in the construction industry. A review conducted by Adams (1997) reveals that, major projects in most developing countries are carried out by foreign contractors due to the fact that, indigenous construction capability involves deficiencies. The performance of the Ghanaian construction industry is poor loaded with many difficulties ranging from contract administration, through complex and lengthy payment procedure, delayed payments to the project execution (Anvuur and Kumaraswamy, 2006). Adams, further reveals indigenous constraint in Nigeria as in other developing countries are: access to capital, gaining interim payment, procurement of works, variation payment negotiation, access to plant and equipment, maintaining plants and equipment, technical know-how, organizational management, materials and equipment transportation, financial management, staff management, strategic

management, providing reliable tenders, skilled labour shortage and project planning and site management. Ofori, (2012) advocated that, there are three major reasons why the construction industry in many developing countries faces problems and this is referred to: economic weaknesses, in that, inadequate resources hamper their growth and market forces which support innovations are not present; government do not recognize the importance and the need of the industry, hence no effective and efficient formulation and implementation of programmes to advance the industry; and unable to make or deal with their flaws, to make solid case for help, or contribute to the government quest to improve the industry. Studies by Gockel and Akoena (2002), reveals that, finance, lack of managerial skills, equipment and technology, regulatory concerns and access to international market strong hampers the growth of firms in the developing nations. The effectiveness of managerial controls on the part of organization places a significant path on the success of the firms. The insufficiency of management talent, has an extravagant impact on the growth of organizations (Abor and Quartey, 2010).

In Ghana, high start-up for small and medium firms, including licensing and registration requirements and cumbersome procedures for registering and commencing business are issues often cited in surveys to hampering the growth of firms. Once again, trade liberalization policies opened many firms to greater external competition such as importation of cheap goods, and inability to cope (Tagoe, Nyarko and Anuwa_Amarh, 2005). According to Djokoto, Dadzie and Ohemeng-Ababio (2014), the unmanageable registration processes has hampered the growth of many construction firms with some collapsing and others has been rendered ineffective in the industry.

2.5 MANAGEMENT PRACTICES

The issue side on the managerial capacity for firms is relatively revealing. Thus, is striking that construction organizations are admitting their own inadequacies, although this is also a long-held belief among many industry analysts. The reality is that, many firms operate a personalised style of management without due regard to effective modern management practices and recruitment methods (Schmitz and Musyck, 1994). Management organization relates to the organizational structure of the company and this usually has significant impact on construction project performance. This is because effective management of the organization brings about teamwork resulting in effective project delivery to time, within cost and to the required quality standard. Experience of technical personnel within the organization also boosts contractor performance because these personnel are responsible for formulating and taking decision at the right time for project to be completed within cost, time and quality (Aje *et al.*, 2009).

Mintzberg (1979) noted that, little of the behaviour of organizations is formalised and that they make minimal use of planning. Therefore, the informal style of management by firms may seem incongruent with the rather formal methods of strategy formulation, analysis, and implementation. Rather than remain passive to adverse environmental pressures and constraints, owner managers may respond by developing strategies to overcome these constraints. It would be wrong to assume that firms, as a result of their preference for informal management style do nothing about strategic management; at least they may perform strategic management in a way that suits their culture. . One key paradox elaborated upon by Price and Newson (2003) is related to the question of what strategy an organisation should adopt. Empirical research by Woods and Joyce (2003) demonstrate that, as construction firms gain knowledge of strategic tools, their practices will evolve to better management strategies.

The management of staffs poses a great significance to the growth and development of any construction firms. The casualized nature of the workers of these firms has serious implication on their management. The construction industry is labour intensive and contract staff cut across the range of professionals like mechanics, electricians, plumbers, painters, carpenters, etc. Employment of contract staff or temporary staff is one strategy the construction industry is using. Job seekers are forced to accept any job offered to them whatever conditions come with it. Thanks to the high rate of unemployment in the country. Apart from the already mentioned management practices, the research work is also directed towards improving existing knowledge of contract staff administrators in Ghana. According to Fryer, (1990) the growth and development of any construction firm would greatly depend on the performance of the workers. This he further stated will depend on the ability, skill, experience, personality, motivation of the contract staff, the work environment, task clarity, and stress factors under which contract staff works. Nwachuhwu, (1988) also held a similar view that when management systems are examined by the analysis of various functions of personnel management which include human resources planning; recruitment, staffing and appraisal; training and development; compensation (wage and salary administration, fringe benefits and services administration), health and safety, labour relations and personnel research enhances the growth of the organization.

2.6 GROWTH

The concept of organizational growth (OG) is often used to represent the ability of an organization to continuously improve. French and Bell (1998) provided an academic and comprehensive definition of OG as —a long-term effort, led and supported by top management, to improve an organization's visioning, empowerment, learning, and

problem solving processes^l. This growth according to French and Bell in the same year through an ongoing, collaborative management of organizational culture using the consultant/facilitator role and the theory and technology of applied behaviour science.

On a day-to-day level, a shorthand definition of OG is —an ongoing, thoughtfully planned effort by all stakeholders, fulfils its mission, and approaches its vision^l. OG is a discipline built on both academic research and real-world practice in the applications of research findings all focussed on improving the effectiveness of individuals, groups, and organizations. It encompasses a wide range of topics, including organizational behaviour, group dynamics, facilitation, continuous improvement, learning organizations, organizational learning, and appreciative inquiry

2.6.1 Growth indicators

According to Ali, Al-Sulaihi and Al-Gahtani, (2013), the sluggish level of economic growth, increased competition, and construction industry streamlining have caused a robust pressure on construction organizations to constantly advance their productivity and performance. Many authors have studied the performance of construction companies at the project level. But until recently, the demand for performance assessment management at the company level has seen a boom. It actually encompasses considering the way things are been done and seeing why performance is at a certain level and using external comparators to expand performance. Swan and Kyng, (2005), stated that, expanding performance in an orderly and logical manner by measuring and comparing your performance against others, and then using lessons learned from the best to make target improvement involves answering the questions:

- Who performs better?
- Why are they performing better? and

- What actions are needed to improve performance?

According to Chan and Ada (2004), cost, time and quality are the three basic importance growth indicators in construction projects followed by others such as safety, functionality and satisfaction. Studies by Foreman-Peck, Makepeace and Morgan, (2006) reveals that, the level of productivity of the organization, number of employees and annual turnover influences the growth or performance of an industry. He further advocated that, profits are needed for existence in the long run in a competitive environment, it is a necessary but not sufficient condition for growth. However, a low-profit business will lack the finance for expansion, but a high-profit business may conclude the risk and reward of expansion are inadequate. Nonetheless, Storey (1994) opines that, one significant and comprehensive growth factors fell into three groups: business strategy, management characteristics and firm characteristics, and to this may be added the general business environment.

Correspondently, Dalrymple (2004) in his study suggested that the following companies profile can be used as a benchmark for growth indicators:

- *Financial revenue and cost data:* companies turnover, export turnover, pretax profit, depreciation, value of brought in materials, employee remuneration, R and D expenditure, training expenditure, marketing expenditure, interest paid
- *Financial capital data:* fixed assets, capital investment, stock/inventory, debtors, cash-in-bank, total assets, creditors short-term loans, other current liabilities, long term loans, other long term liabilities, shareholders' funds
- *Innovations data:* turnover from new geographical markets, number of new customers, turnover from new products/services

- *Customer satisfaction data*: number of orders, number of orders not delivered when promised, number of customers, number of customer complaints, order failed before delivery, order rejected by customers.
- *People managements*: number of new employees, number of managers, number of management levels, number of graduates, employees directly involved in provision of services/products, total number of days training per year.
- *People satisfaction*: number of leavers, number of accidents/incidents.

Beck, Demircug-Kunt and Levine, (2005), advocated that, considering the firm size depicts a great determinants of economic growth in the construction industry, alongside with technological advancement, polices and management.

2.6.2 Success measure criteria

Success measure differs from one country to another, as what may be a success to one may not automatically be to the other. As a result of different market situations, polices and strategies, cultures, and competitive environment necessitates diverse measures (Kaplan and Norton, 1993). In the construction industry, benchmarking of the key performance indicators have been very effective in familiarizing many companies to the subject of performance measurement (Beatham *et al.*, 2004). According to El-Mashaleh *et al.* (2007), organizations apply benchmarking to measure and relate its performance in relation to recognized leaders for the purpose of ascertaining the strength and weakness in performance, and using lessons learned from the best ones to determine the best practices that can lead to greater performance when improved and implemented. Establishing suitable key performance indicators is the most critical in determining the overall success of the company (Ali, Al-Sulaihi and Al-Gahtani, 2013).

Based on the application of benchmarking, (Rankin *et al.*, 2008) it was broken down into levels: (1) task (e.g. specific activity of the project); (2) project (e.g. cost of the project, cost and time predictability, health and safety issues, and client satisfaction); (3) organization (e.g. company's profitability, human resource, innovation ability); (4) industry (e.g. productivity of the industry); and (5) economy (e.g. financial capacity, international competitiveness). The table below shows previous studies on performance indicators at the project level and company level.

Table 2.2 summary of previous studies on performance indicators at project level.

No.	Author and year	Country	Performance indicators
			1. Wong (2004) UK 1. staff experience 5. Contractor experience
			2. Resources 6. Time
			3. Site management 7. Cost
			4. Safety 8. Quality
			2. Rankin <i>et al.</i> , Canada 1. Cost 5. Scope
			2. Time 6. Innovation
			3. Quality 7. Sustainability
			4. Safety 8. Client Satisfaction
3.	Luu <i>et al.</i> , (2008)	Vietnam	1. Construction cost
			5. Team performance
			2. Construction time 6. Change management
			3. Customer satisfaction 7. Materials management
4.	Quality		management
4.	Skibniewski and USA		1. Construction cost 3. Client satisfaction
	Ghosh (2009)		2. Construction time
5.	Toor and Thailand		1. On time 6. Safety Ogunlana (2010) 2. Under budget 7. Stakeholders
			3. Specifications
			4. Efficiently
			5. Effectiveness

Table 2.3 summary of previous studies on performance indicators at company level

No.	Author and year	Country	Performance indicators
	1. (2007)	EI-Mashaleh et al., USA	1. Schedule performance 2. Cost performance 3. Client satisfaction 4. Safety 5. Profitability
	2. (2004)	Ramirez <i>et al.</i> , Chile	1. Safety 2. Productivity 3. Quality effectiveness 4. Efficiency of labour 5. Training 6. Planning
3.	Yu <i>et al.</i> , (2007)	Korea	1. Profitability 2. Growth capability 3. Stability 4. Customer satisfaction 5. Technological competency 6. Organizational 7. Business efficiency
4.	Nudurupati <i>et al.</i> , (2007)	UK	1. Quality 2. Client satisfaction 3. Environment impact 4. Safety 5. Time 6. Cost
5.	Horta <i>et al.</i> , (2010)	Portugal	1. Productivity 2. Growth 3. Profitability 4. Safety 5. Customer satisfaction

Source: Ali, Al-Sulaihi and Al-Gahtani, (2013).

2.6.3 Factors that influences performance/contributing to contractor success There are many factors that contribute to contractor success. Construction projects and their success are highly dependent on contractors (Palaneeswaran and Kumaraswamy, 2001). One of the issues related to contractor growth is at what point a contractor is considered to be successful or not (Ojiako *et al.*, 2008). An additional issue for consideration is that growth measurement criteria vary from contractor to contractor (Toor and Ogunlana, 2010).

More recent concerns associated with the growth and efficiency of enterprises has also become prominent (Mazumdar, 1997). Using the case of Northern Italy, Piore and Sabel (1984) have argued that small enterprises are more efficient because they have adopted a flexible specialisation approach. Correspondingly, there has been growing interest in whether this model has or can be replicated in developing countries (Schmitz and Musyck, 1994).

The role of finance has been viewed as a critical element for the development of construction firms. Previous studies have highlighted the limited access to financial resources available to smaller enterprises compared to larger organisations and the consequences for their growth and development (Levy, 1993). Typically, smaller enterprises face higher transactions costs than larger enterprises in obtaining credit.

Insufficient funding has been made available to finance working capital (Peel and Wilson, 1996). Poor management and accounting practices have hampered the ability of some construction firms to raise finance. Information asymmetries associated with lending to small scale borrowers have restricted the flow of finance to smaller enterprises. In spite of these claims however, some studies show a large number of small enterprises fail because of non-financial reasons (Liedholm et al., 1994).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is an essential aspect of any research and entails the data in the actual study. This section addresses issues relevant to the methods employed in order to

achieve the objectives of the research and the overall aim of the topic. The approach undertaken for this research comprised two components, a literature review on growth strategies and strategic management implementation in rapid developing construction firms as discussed in the previous section, and self-administered survey.

The section presents discussions of literature on paradigms that inform the study's underlying philosophical assumptions and the different research strategies available which was used as means of solving specific research problems. Discussions on the relative merits of the different research strategies would also be presented in light of the particular characteristics of rapid developing construction firms. The section also will argue for the adoption of methods well suited to rapid developing construction firms which also took into account the nature of the phenomenon under investigation, therefore a qualitative and quantitative strategy was adopted. The full picture underpinning the choice of the sampling methods, data collection instruments and tools are addressed.

3.2 Study Area

Even though the problem is a Global phenomenon and even more prevalent in some countries and Regions, the study was conducted in the Ashanti Region, precisely in the Kumasi Metropolis. Kumasi Metropolis was decided upon because more construction firms are located there and many construction firms seek to find green pastures in this city because of the increasing demand for housing facilities and other structures and the other economic benefits they enjoy. Notwithstanding, the researcher is also familiar with the area and therefore will be able to source credible information and data.

3.3 Research Design

Survey research design was adopted in this study to assess the strategies of rapid developing construction firms in Ghana using Ashanti Region as a case study. It is possible to use more than one research strategy in any particular study, but when the research focuses on how and why questions about a contemporary set of elements, the use of case study research is more desirable (Yin, 1994). The research approach adopted in the study was the use of a case study research. Gilham (2000), generally defined case study as the —one which investigate an individual, a group, an institution or a community to answer research question(s) and which seek a different kind of evidence, evidence which is there in the case setting, and collated to get the best possible answers to the research questions.

The study consisted of collection of both qualitative and quantitative data using structured and semi-structured interviews survey. This was done using various data collection techniques as well as analytical methods. Prior to the instigation of the preliminary survey, an extensive literature review was undertaken. The literature review covered extensively on issues making rounds in the discipline; notably a general overview of the Ghanaian construction industry including the various definitions in the discipline and contemporary works on construction strategic management. The competitiveness of the construction industry was also looked at. In addition, challenges and management practices in the industry were also looked at.

These sections clearly highlight the factors thwarting construction firms in the Ghanaian construction industry. Growth indicators and success measure were also looked at.

3.4 Sources of Data

The researcher employed the use of primary sources of data. The primary function of the survey is to collect information that can be analysed, to facilitate inference, and assisted the researcher to get original information such as eye witness accounts, personal observations and visits to the project sites to administer interviews and questionnaires.

3.5 Target Population

Ghana has ten administrative regions subdivided into 216 distinctive metropolitan, municipal and district assemblies. Construction businesses are registered members of contractors associations; the Association of Road Contractors of Ghana (ASROC) or the Association of Building and Civil Engineering Contractors of Ghana (ABCECG). The Headquarters of the two associations are in the national capital-Accra and regional branches have been established in the ten regional capitals of the country. The target population was one hundred and sixty-three (163) as at 2014 which represented the entire building and civil engineering contractors in the Ashanti region of Ghana.

3.5.1 Data Collection instrument

In view of the nature of the topic, a face-to-face interview was the main and the most appropriate instrument used. Questionnaires are an inexpensive way to gather data from a potentially large number of respondents however, the nature of this study called for personal interview. To achieve the overall target, non- probability sampling techniques was adopted for this survey. This non-probability sampling techniques was used because it have the added advantage of getting the key respondents (through introduction) possess the required characteristics and information for this survey. Data was collected through interviews only and responses served as the main source of data.

3.5.2 Sample

As used by various researchers, the term 'sample' refers to specimen or part of a whole (population) which is drawn to show what the rest is like (Naoum, 1998). Sampling involves choosing part of a population of interest for a survey. It is aimed at providing practical means of enabling the data collection and processing component of research to be carried out whilst ensuring that the sample constitutes adequate representation of the population (Fellow and Liu, 2003). It is argued that, it is virtually impossible to test every member of a population. This means that, it is impracticable to reach every member of a population when collecting data.

3.5.2.1 Sample size determination for contractors

In order to obtain a sample that is representative of the population, the Kish Formula was used to determine the sample size. Statistics obtained from the Association of Building and Civil Engineering Contractors in the Ashanti region, there were in total, one hundred and sixty-three (163) building and civil contractors. Three (13) of these contractors were D1K1, ten (27) were D2K2 and seventy (123) were D3K3. To determine the sample size, the Kish Formula was used.

Kish Formula states that:

$$n = \frac{n'}{\left(1 + \frac{n'}{N}\right)}$$
$$n' = \frac{s^2}{v^2}$$

Where v = the standard error of sampling distribution

$= 0.05$ s^2 = the maximum standard deviation of the

population Total error = 0.10 at a confidence interval

of 95%

$$s^2 = p(1 - p) \text{ where } p = 0.50$$

$$= 0.50(1 - 0.50)$$

$$= 0.25$$

p = the proportion of the population elements that belong to the defined region.

$$n' = \frac{s^2}{v^2}$$

$$= \frac{0.25}{0.05^2} = 100$$

$$N = 163$$

Therefore

$$n = \frac{100}{\left(1 + \frac{100}{83}\right)} = \frac{100}{(1 + 1.205)} = 45.36 \approx 45$$

This sample size formula provided the minimum number of questionnaires that were to be administered. The sample size was found to be forty-five (45) of the contractors. From these sample three (3) were D1K1 contractors, ten (10) were D2K2 contractors and thirty-two were D3K3 contractors.

3.5.3 Sampling

According to Rubinstein (1994), there are no hard and fast rules about numbers however, qualitative research in old age and aging has used experiential cell sample

sizes of 10 to 100, with clustering around 50. Arguably, other researches in this area have also suggested that 12-20 data sources is used when looking for disconfirming evidence or trying to achieve maximum variation (Baum, 2002). Whilst there are no closely defined rules for sample size (Baum, 2002), sampling in qualitative research usually relies on small numbers with the aim of studying in depth and detail (Miles and Huberman 1994). Again in seeking a richness of data about a particular phenomenon, the sample is derived purposefully rather than randomly (Leedy and Ormrod, 2005). With the qualitative research paradigm, there are many variations in sampling procedures, goals, and strategies. Several authors have suggested that purposive sampling (also referred to as 'judgment sampling') and 'theoretical sampling' is the main categories defining qualitative sampling approaches (Marshall, 1996). Purposive sampling refers to strategies in which the researcher exercises his or her judgment about who will provide the best perspective on the phenomenon of interest, and then intentionally invites those specific perspectives into the study. However, in practice, the complexity of the competing factors of resources and accuracy means that the decision on sample size tends to be based on experience and good judgment rather than relying on a strict mathematical formula in a case of qualitative research (Brink 1991). For the sake of clarity the research employed purposive sampling as technique best for the study

3.5.4 Sampling Technique

A purposive non random sampling technique was used based on annual turnovers of the contractors to draw the sample from the population. A survey is an investigation about the characteristics of a given population by means of collecting data from a sample of that population and estimating their characteristics through the systematic use of statistical methodology (Kheni, 2008). The survey is a non-experimental, descriptive research method. It tends to be qualitative and aims to collect information from a sample

of population such that the results are representative of the population within a certain degree of error. In the study, a total sample size of forty-five (45) was taken. This was made up of three (3) classes D1K1 contractors, ten (10) D2K2 contractors and thirty-two (32) D3K3 contractors.

3.5.6 Data analysis

Data collection and data analysis are concomitant activities (Marshall and Rossman, 1999; Yin, 2003) citing Abasi, (2012). Analysis of data is a process of editing, cleaning, transforming, and modelling data with the goal of highlighting useful information, suggestion, conclusions, and supporting decision making. (Adèr, 2008). The raw data obtained from a study is useless unless it is transformed into information for the purpose of decision making (Emery and Couper, 2003). Data collected from the questionnaire were analysed, summarized, and interpreted accordingly with the aid of descriptive statistical techniques.

The completed structured questionnaires were edited to ensure completeness, consistency and readability. Once the data had been checked, they were arranged in a format that enabled easy analysis. The retrieved questionnaire was aggregated into larger units and were processed and entered into the Statistical Packages for Social Sciences (SPSS version 20). The SPSS software was employed to organize the survey findings and to cross-tabulate the relationships between the variables. To elucidate the discussion in this discipline, the data obtained was presented graphically and in tabular form.

Successively, the results are analysed statistically using Relative Importance Index (RII) to determine the severity of the growth indicators (see for instance Badu *et al.*, 2013). The RII value indicates the relative significance or importance of one factor

compared to other variables in the same category. The RII is calculated using the formula:

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

Where, W = weights given to each factor by the respondents and ranges from 1 to 5, where '1' is very low and '5' is very high.

A = the highest weight (i.e. 5 in this study) N

= the total number of respondents.

3.5.7 Purposive Sampling

According to Mugenda and Mugenda (1999), purposive sampling is sampling technique that allows the researcher to use samples that have the required information with respect to his/her research objective. Therefore, respondents were handpicked based on their turnovers and also because they possess the required characteristics and were informative. In this regard a total of 45 contractors were selected to seek their response to the interview.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

This chapter analyses the data collected from the forty-two professionals (building and civil contractors) operating in Kumasi metropolis. Respondents were randomly chosen from various construction firms and individual contractors in Kumasi. This chapter analyses and discusses the growth indicators of rapid developing construction firms and also talks about the factors that lead to growth in rapid developing construction firms.

In all forty-five (45) people were given face-to-face interview on the field comprising of civil and building contractors from both the private and the government sector. The response rate for the data collection was 93.33%. Those interviewed in the construction firms included managing directors (owners) of the firm. The responses from the interview were analysed qualitatively. The chapter took into consideration background information of the respondent's organization and the research objectives.

The organization of the data presentation, description and analyses were done using Statistical Package for Social Sciences (SPSS) and Microsoft Excel. The statistical tools used for the analysis were the Frequency Index and Relative Importance Index (RII), which were used to rank the various variables. This chapter also presents the results of the analysis and discussions in the form of texts, figures and Tables.

4.2 DEMOGRAPHIC/ BACKGROUND INFORMATION

This section presents background information on various respondents. The background information included; mode of ownership, period of existence, previous and present contractor's classification. It is fundamental to understand that the background of the respondents and therefore, the interview interrogated all that through the study. This helped to construct a relation connecting the qualities of their responses such that appropriate deductions are made in the resulting data analysis.

4.2.1 Mode of ownership

Any business requires a significant decision to be made. Thus, to decide on the structure of the business, ranging from sole proprietorship to limited liability. This decision basically will have long term major effect on the business as any type of ownership chosen will dictate how the company will be run. It was therefore very necessary to ask respondents to indicate the mode of ownership of their company.

Table 4.1 and **Figure 4.1** show the responses of the respondents regarding mode of ownership.

Table 4.1: Mode of Ownership

Mode of Ownership	No. of respondents	Percentage
Limited Liability	13	30.95%
Sole Proprietorship	18	42.86%
Partnership	11	26.19%
Total	42	100.00%

Source: Field 2015.

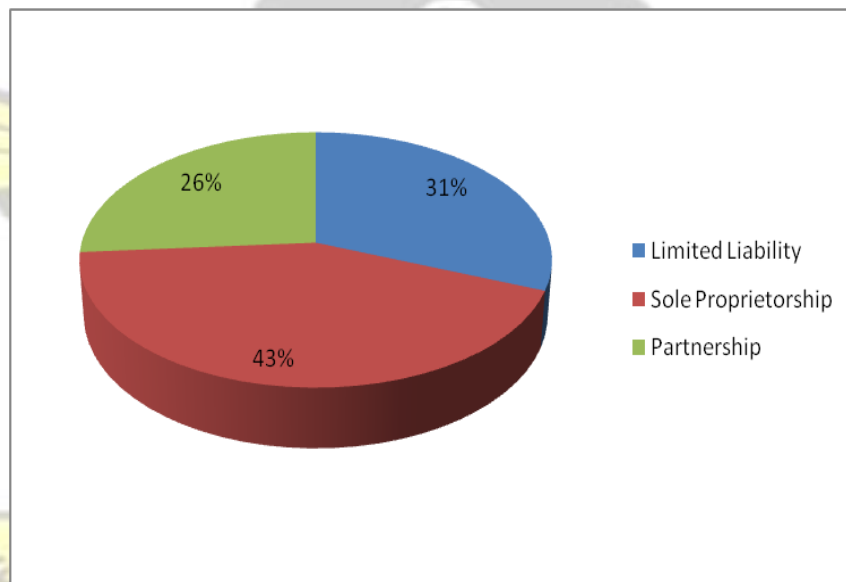


Fig 4.1: Mode of ownership. (Source: Field 2015).

From the above, it is clearly shown that most of companies in Kumasi metropolis are registered as sole proprietorship with 41% followed by limited liability companies with the least being registered as partnerships. Sole proprietorship enjoys the merits of taking full responsibility of the firm including profits hence most entrepreneurs opt for that mode of ownership.

4.2.2 Years of existence

Most respondents reported that they have been involved with the construction industry for more than five (5) years. It could averagely be said that majority of the respondents have experience equivalent to ten (10) years, forming approximately 60%. This shows that the data collected came from contractors with wide range of knowledge and experience which helped in our research because responses give will come from years of practice and experience in that sector.

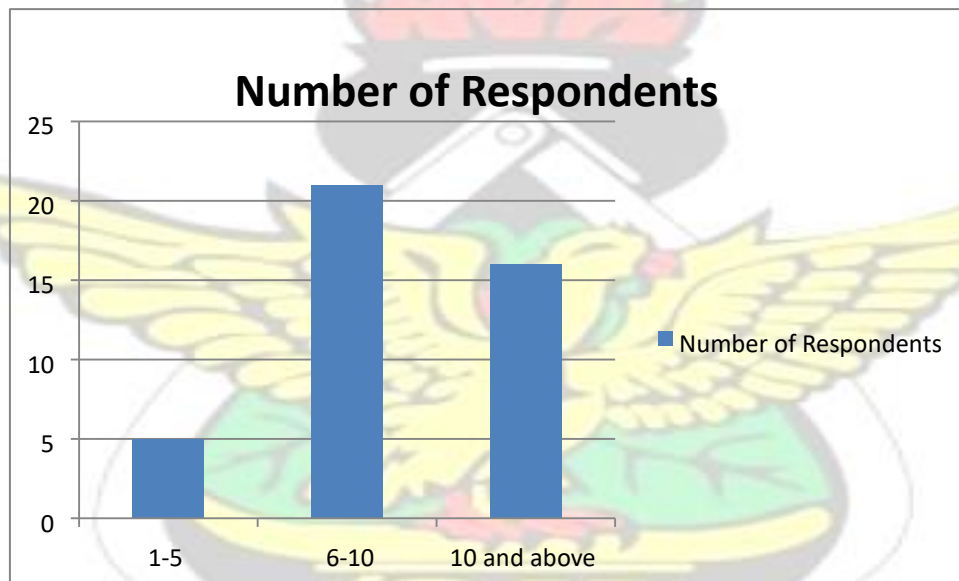


Fig. 4.2: Years of existence of firms. (Source: Field 2015).

Table 4.2: Years of existence of firms

Years in Operation	Number of Respondents	Percentage
1-5	5	11.90%
6-10	21	50.00%
10 and above	16	30.10%

Total	42	100.00%
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4.2.3 Management and Ownership. (Source: Field 2015).

In corporate governance, owners are sometimes different from those running the company so as to allow skilled managers to conduct the difficult operation of the business. 54.76% of respondents indicated that they are owners and managers as well. Most of them complained about the huge remuneration of hiring the services of a manager thereby discouraging them for hiring. It can therefore be argued that ownermanager is the trend most firms adopt in running their operations since they see it as most affordable decision. Those who had owners different from the directors also had the view that, you need experts to run a professional company properly but not just capital. They also stated that it's economically wise to invest in hiring the services of a managing director in order to rip the full potential of your company.

4.2.4 Previous and present contractor's classification

This question was posed in order to assert the rate of growth of construction firms in Kumasi. Most firms started as D4K4 contractors and later grew to D3K3 and moved on to D2K2. Most companies depend on their classification but it all depends on how well your company is managed.

Figure 4.3 clearly shows that the growth rate of firms in Ghana is very slow therefore strategies have to be adopted in order to elevate the growth rate of these firms in Kumasi and Ghana as a whole.

Table 4.3: Classes of Contractors

	D1K1	D2K2	D3K3	D4K4
PREVIOUS	0.00%	16.67%	54.78%	28.55%

PRESENT	0.00%	35.71%	59.52%	4.77%
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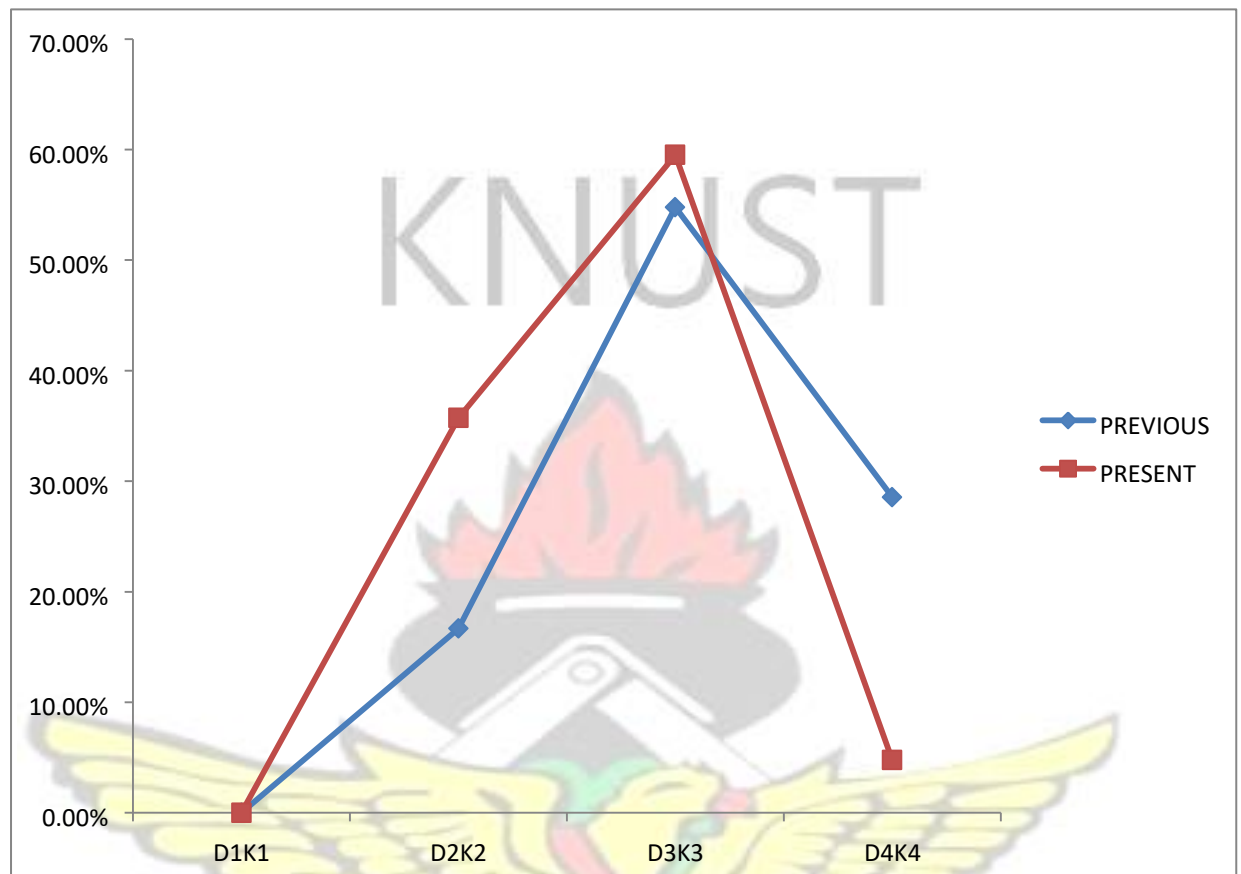


Fig 4.3: Rate of growth. (Source: Field 2015).

4.3 Management Practices

4.3.1 Introduction

Over the previous years, construction industries have invested heavily in the improvement of their management processes (Yacine, 2001). The same author stated that, new forms of innovative project management practices supported by IT, appeared as a solution to the ever-growing pressure from clients to deliver highquality facilities on time and on budget. Despite the interest and the effort put into knowledge management practices by many leading companies, the discipline is still in its very new stages. Many contractors and researchers have acknowledged the limitations of current

approaches to managing the information relating to and arising from a project (Choi and Ibbs, 1995).

4.3.2 Procurement of projects

Procurement of projects in Ghana is done by tendering process in different forms namely; competitive, selective and open tendering. To be able to procure projects in Ghana you have to be registered with any of these two bodies: Ministry of Water Resources Works and Housing (MWRWH) and the Ministry of Roads and Highways (MRH). Procurement of works in the construction industry is done prior to every construction project to select the best contracting company for the job. All the respondents went for tendering as a way of procuring projects thus 100%. The first step for experiencing growth is the firm's ability to secure jobs.

4.3.3 Monitoring and evaluation of projects

On the issue of monitoring and evaluation of projects, 90.48% of the respondents stated they monitor their operations on site. But, unfortunately further investigations showed that a few percentage keep records on the progress of their projects. In terms of monitoring projects some responded that they pay unannounced visits to project site to see and check the progress of their project. This keeps the workers on their toes every day because you might not know when the next visit will be. Others indicated that, visits are paid at schedule times and none of the respondents gave information regarding the parameters used to access what percentage of the works have been done and how much was left. Most of the time visits are made just to see workers doing something with no parameters to measure the work progress. Without monitoring, experiencing growth will be very difficult.

4.3.4 Work Personnel

Responses show that many construction firms employ averagely up to 45 personnel in their firms to help with the day to day activities of the firms but surprisingly 61.90% of these firms employ professionals to work for a short period of time. This is not the best practice since it is difficult to establish that good work relationships with people you work with for a short period of time and also effective coordination becomes a big problem. This practice makes it difficult to keep records on past projects and to compare documents of past projects with present ones. Thus most firms run in a blind lane not knowing what is next and best track to take. The remaining 38.10% firms with permanent employees get the best of their employees. This is because experiences that they gain from previous projects are brought on board to enhance the execution of the new project.

Also, employers help their workers with the reason that, they organize enhancement training sessions for them in order to improve their capabilities. This in a long run enhances productivity, reduces the amount of waste generated on site and consequently increases the profit margins of the company thereby initiating growth in the industry.

4.3.5 Strategic planning

Strategic planning is essential in every aspect of the construction industry as most of the activities done on site must be planned on paper. Every aspect of construction must be strategically planned before executed.

Over 50% of the responses showed that, firms in Kumasi incorporate strategic planning in other for them to prepare and adapt to technological changes in the industry. Most firms are strategic in planning initiatives for a number of years ranging from 2-5 years. Therefore any kind of contingencies is well planned for ahead of time and this enhances

growth in the industry. In order for any construction firm to grow, strategic planning should be the core of all activities undertaken.

4.3.6 Financial management

Business failure in the construction industry is an important research issue for forecasting the financial status of a company (Kangari *et al.*, 1998). A lot of construction companies collapse due to financial mismanagement. This is due to the fact that, most construction companies employ unqualified personnel like family members to manage their finances. This in most cases leads the company to bankruptcy and liquidation.

From the survey, 76.19% of respondents indicated that, they apply financial management technique in running their firm. Follow-up questions indicated that all of them did not in reality employ the technique effectively and most of them saw financial management as mere savings. Also some of the respondents did not have qualified personnel to handle the purse of the company including those under project execution. This clearly shows that financial management is a prerequisite for organizational growth.

4.3.7 Plant and equipment maintenance

Plants and equipment is a crucial aspect of construction. With the enormous advancement in technology comes the age of mechanical utilization. Almost every construction firm is moving from the manual way of doing things to machines which is faster and easier.

With regards to plant and equipment maintenance, 5 respondents representing 11.90% responded negatively with a higher number 88.10% admitting having laid down procedures for managing plant and equipment. Of those that gave affirmation, further

probing shown that only a few of them could provide documents to show laid down procedures for plant and equipment maintenance and records of past maintenance.

The Ghanaian habit of poor maintenance culture results in frequent break downs thereby rendering these plant and equipment less efficient, and causing delays in executing projects. When these equipment break down, large amount of monies are needed for repairs, delay in finishing work may attract penalty thereby reducing the profit margin. Taking into account all these challenges, it is clear that without plant and equipment maintenance policy, firms cannot grow enough.

4.3.8 Plans for future growth

Every firm wants to grow and be recognized as one of the best in the country. Growing takes years of hard work, dedication and above all planning ahead. In order to grow exponentially, you always have to be ahead of your competitors and make customer satisfaction key in all endeavours in order to retain customers.

The zeal of every firm to grow was vividly shown in the respondents response as over 50% of the respondents had the dream of going international and the main objective for achieving this goal when questioned was to satisfy their customers as best as they could in order to retain them. Expansion comes with increase in number of customers and hence this will help them in achieving the organizational growth they sought for.

4.4 PRESENTATIONS AND DESCRIPTIVE ANALYSIS OF DATA (GROWTH STRATEGIES OF RAPID DEVELOPING CONSTRUCTION FIRM

This section of the questionnaire is structured and sought to give respondents the opportunity to show by indicating on a five point Likert scale, if the factor identified really affects construction

Firms' growth and also show how growth indicators are significant for a rapid developing firm.

4.4.1 Factors that leads to growth in rapid developing firms.

According to Mazumdar (1997) there have been a serious issue raised on the growth and efficiency of construction enterprises. As a result, we sought to determine the various factors that lead to growth in rapid developing firms by asking the respondents to determine how high the factors outlined in **Table 4.5 in Appendix B and Table 4.6** below, affect growth in rapid developing construction firms.

Table 4.4 in appendix B represents the average percentile ratings of all the listed factors that affect growth. A critical look at the table shows that an average rating of 0.40% of our respondents proposes that the growth factors outlined affecting the construction industry is not extreme while an average rating of 6.95% shows that the factors affecting the construction industry is less extreme. 28.58% of the respondents stated that the growth factors outlined quite extremely affects the construction industry and 53.36% proposed that the effect of growth factors is extreme on the construction industry. The remaining 10.71% respondents stated that the factors identified in the literature extremely affect the construction industry. From the respondent's response, it can be said that majority were of the view that the growth factors identified and outlined in the literature have extreme effects on the construction industry.

Table 4.4 below employs the use of Relative Importance Index (RII) to find out how highly the individual factors affect growth in the construction industry.

Table 4.4: Growth factors affecting construction industry

	STRENGTH	ΣW	Mean	RII	Ranking
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ITEM					
1	Good client relationship	162	3.86	0.771429	1 st
2	Financial position	137	3.26	0.652381	12 th
3	Efficient organization structure	153	3.64	0.728571	8 th
4	Dynamic management skill	157	3.74	0.747619	6 th
5	Project performance record	157	3.74	0.747619	7 th
6	Technological advancement	157	3.74	0.747619	5 th
7	Ability to forecast market changes	154	3.67	0.733333	4 th
8	Loan repayment	158	3.76	0.752381	3 rd
9	Quality of personnel	158	3.76	0.752381	2 nd
10	Effectiveness of training programme	153	3.64	0.728571	8 th
11	Standardization of product or services	151	3.64	0.719048	10 th
12	Innovative projects management methods	151	3.60	0.719048	10 th

Source: Field 2015.

4.4.1 Good client relationship

Previous studies have shown that good client relationship is a factor for organizational growth and was ranked first as shown on the table above with an RII value of 0.77 and a mean score of 3.86. Historically the construction industry has used procurement methods and contractual arrangements that have encouraged clients and contractors to see themselves as adversaries and that have reinforced any differences in values, goals and orientations that exist within the construction project team (e.g. Latham, 1994). However, all these was expected to have changed over recent years towards client-contractor relationships built on cooperation and trust (Mike *et al.*, 2000). Good client relationships brings about growth in the industry and reduces any form of dispute that occurs in the industry.

4.4.2 Quality personnel

To overcome quality problems and their associated costs, the construction industry must try its best to pursue, initiate and implement innovative quality management organizational and techniques (Kalidindi *et al.*, 1991). This can be achieved in one way by employing quality personnel which will in other ways increase your industry's growth rate. In view of this, the respondents ranked quality personnel as the second most important factor for growth in the construction industry with an RII value of 0.75 and a mean score of 3.76.

4.4.3 Loan repayments

The construction industry especially in Ghana depends on loans mostly to survive. If a firm is able repay its loans, it helps in that firm's growing process but if the reverse happens, the firm is inevitably moving towards bankruptcy. Loan repayments according to table 4.31b was ranked third with an RII value of 0.75 and a mean score of 3.76.

4.5 Growth indicators

Cost, time and quality are the three basic importance growth indicators in construction projects followed by others such as safety, functionality and satisfaction (Chan and Ada, 2004), there are other indicators of growth in the construction industry as listed in the literature review and respondents were asked to indicate the degree of significance of the enlisted factors.

Table 4.5 in the appendix represents the average percentile ratings of all the listed growth indicators. A critical look at the table shows that an average rating of 0.00% of our respondents proposes that the outlined growth indicators are not significant while an average rating of 0.80% showed that the factors outlined are less significant. 9.67% of the respondents responses also showed that the indicators where moderately significant. 40.48% proposed that, the factors are significant growth indicators in the construction industry and the remaining 49.05% showed that the outlined growth indicators are very significant in the construction industry. From the respondents' response, it can be said that majority were of the view that the growth indicators in the literature have significant effects in the Ghanaian construction industry.

Table 4.5 below employs the use of Relative Importance Index (RII) to find out how highly the individual growth indicators affect the construction industry.

Table 4.5: Growth indicators

ITEM	GROWTH INDICATORS	ΣW	Mean	RII	Ranking
1	Innovation	188	4.48	0.895238	5 th
2	Financial stability	185	4.4	0.880952	8 th

3	Business efficiency	174	4.14	0.828571	14th
4	Labour efficiency	175	4.17	0.833333	13th
5	Capital	181	4.31	0.861905	12th
6	Technological advancement	183	4.36	0.871429	10th
7	Organizational competency	191	4.55	0.909524	2nd
8	Safety	182	4.33	0.866667	11th
9	Staff turnover	164	3.9	0.780952	15th
10	Productivity	187	4.45	0.890476	6th
11	Profitability	185	4.4	0.880952	8th
12	Motivation	190	4.52	0.904762	3rd
13	Risk control	190	4.52	0.904762	3rd
14	Continuous improvement	187	4.45	0.890476	6th
15	Customer satisfaction	196	4.67	0.933333	1st

Source: Field survey 2015.

4.5.1 Customer satisfaction

Customer satisfaction is one of the key issues for industries to address in order to improve quality in the competitive marketplace (Karna *et al.*, 2004). The same author stated that customer satisfaction can be seen either as a goal or a measurement tool in the development of construction quality. Customer satisfaction is seen to retain customers and therefore retain profitability, competitiveness and industrial growth (Anderson and Sullivan, 2001).

This is affirmed from the findings in the Table 4.3.2b which ranks customer satisfaction as the most important growth indicator in the construction industry, with an RII value of 0.93 and mean score of 4.67.

4.5.2 Organizational competency

Organizational competency is also a major growth indicator in the construction industry as clearly affirmed from **Table 4.3.2** above with an RII value of 0.75 and a mean score of 3.76. Organizational competency was ranked second most important growth indicator in the construction industry.

4.5.3 Motivation

Motivation was ranked third by the respondents with an RII value of 0.904 and a mean score of 4.52. Motivation has become one of the most widely discussed concepts in general management. Although it has not generated the same enthusiasm in the construction industry, substantial efforts have been made to apply the concept to construction operatives (Olomolaiye, 1989).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the main findings and discussions on the contractor perspective on key strategies adopted by rapid developing construction firms in the Ashanti region of Ghana precisely Kumasi. In analysing the subject matter, the views of the contractors involved in the building and civil sector of the construction industry were sought through the use of a structured interview and questionnaire guide. This chapter therefore presents the conclusions and recommendation based on the findings from previous chapters.

5.2 Summary of Findings

5.2.1 Management Practices

The study revealed that all the contractors went for tendering as a way of procuring projects thus 100%. And in their view, the first step for experiencing growth is the firm's ability to procure jobs.

On the issue of monitoring and evaluation of projects 90.48% of the respondents stated they monitor their operations and keeps records on the progress of their projects on site. Further investigations showed that, unannounced visits to project site to see and check the progress keeps the workers on their toes every day because you might not know when the next visit will be. Thus without monitoring, experiencing growth will be very difficult.

Responses shown that many construction firms employ averagely up to 45 personnel in their firms to help with the day to day activities of the firms. Employers also organize enhancement training sessions for them in order to improve their capabilities. And this

This in a long run enhances productivity, reduces the amount of waste generated on site and consequently increases the profit margins of the company thereby initiating growth in the industry.

Over 50% of the responses shown that, firms in Kumasi incorporate strategic planning in other for them to prepare and adapt to technological changes in the industry. Most firms plan ahead strategic initiatives for a number of years ranging from 2—5 years. Strategic management was the core for many construction firms.

From the survey, 76.19% of respondents indicated that, they apply financial management technique in running their firm. Follow-up questions indicated that all of them did not in reality employ the technique effectively and most of them saw financial management as mere savings.

With regards to plant and equipment maintenance, a higher number 88.10% admits that they have laid down procedures for managing plant and equipment. Taking into account, it was clear that without plant and equipment maintenance policy, firms cannot grow enough.

With regards to plans for future growth, every firm wants to grow and be recognized as one of the best in the country. Growing takes years of hard work, dedication and above all planning ahead. The zeal of every firm to grow was vividly shown in the respondents response as over 50% of the respondents had the dream of going international and the main objective for achieving this goal when questioned was to satisfy their customers as best as they could in other to retain them.

5.2.2 Growth strategies

5.2.2.1 Factors that leads to growth in rapid developing firms.

According to Mazumdar (1997) there have been a serious issue raised on the growth and efficiency of construction enterprises. As a result, I sought to determine the various factors that lead to growth in rapid developing firms by asking the respondents to determine how high the factors outlined are. From literature, twelve (12) factors were identified and the results indicated three (3) top factors including Customer satisfaction, Organizational competency and Motivation as the lead factors to rapid growth of the developing firms, these findings also confirms with the findings of (Mike *et al.*, 2000; Kalidindi *et al.*, 1991; and Latham, 1994).

5.2.3 Growth indicators

Accordingly, literature on the growth indicators reviewed covered a number of fifteen (15) factors. From the findings Customer satisfaction, Organizational competency and Motivation were the key issues for industries to address in other to improve quality in the competitive marketplace. This also confirms the findings of (Karna *et al.*, 2004; Anderson and Sullivan, 2001; and Olomolaiye, 1989).

5.3 Conclusion and Recommendation

5.3.1 Conclusions

The study reveals that rapid developing construction firms employ certain factor in their businesses to grow and enhance competitiveness in the construction industry. Management practices from the view point of contractors had a significant influence on the growth of their firm. The findings also reveals that, positive and qualified indication that promotes business environment that enhance competition and facilitates profitable market promotes the growth of firm. Again, the application of strategic management process in an organization specially increases the performance of an organizations operations and administration.

5.4 Recommendation

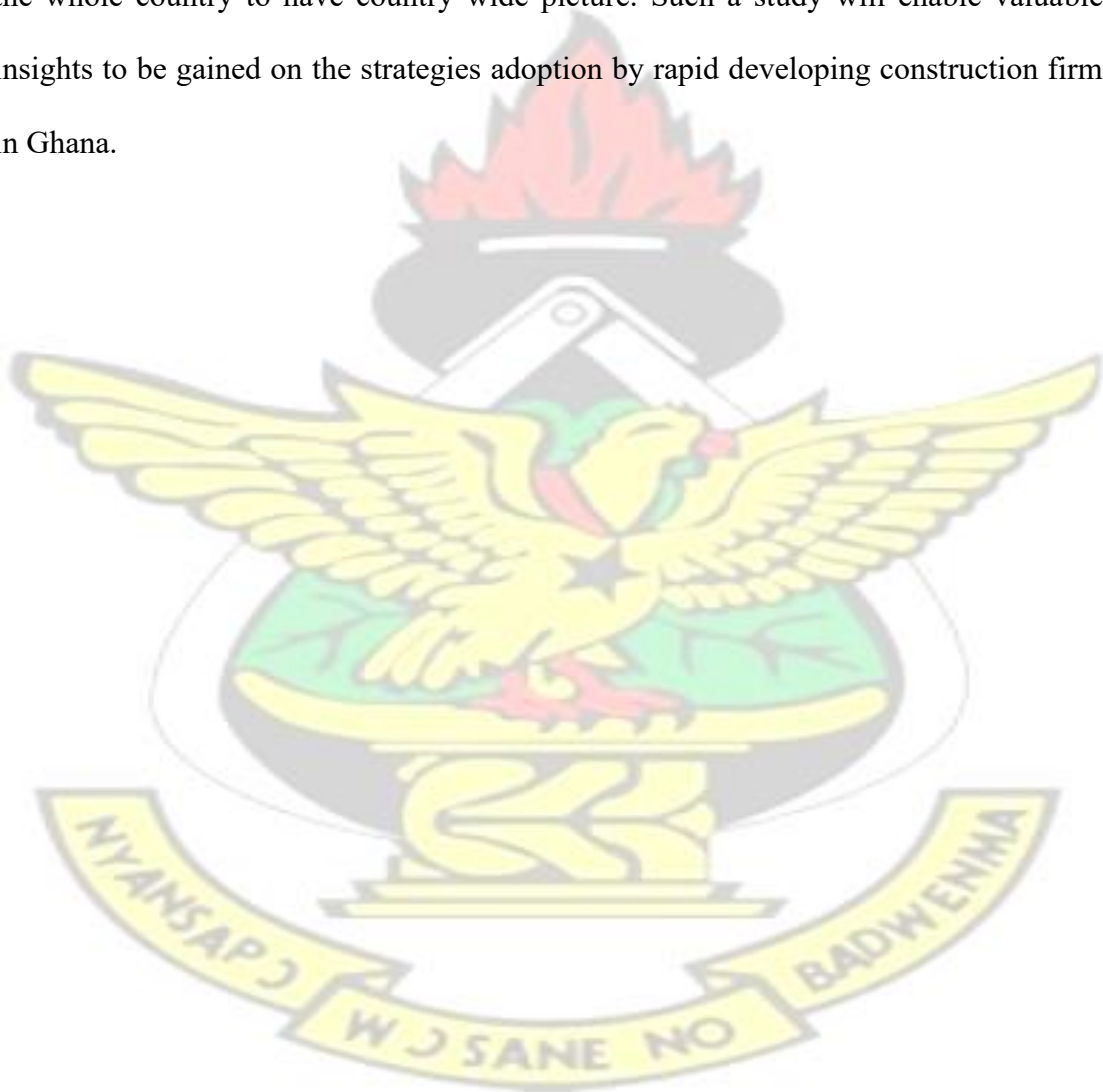
In the light of the above conclusions, the following recommendations are therefore proposed.

- Organizations should re-structure themselves depending on today's changing business environment. When organization changes its business structure, it's positively affects its efficiency and to minimize cost under certain prevailing condition or circumstances.
- Also, organizations should engrossed more on strategic management practices as expressed resource allocation responsibilities is easily permitted for different functions and processes to different bodies and is connected directly with shared culture.
- There is need for continuous work-training programs for owners/managers in the construction industry to update their knowledge and be familiar with project management techniques and processes.
- It is important that professionals who exist regulate the activities of the industry, set-out principles that enforce individual firms to have proper management department or plan as part of their requirement when tendering for a project. This will go a long way to ensure that, management practices is maintained when undertaking projects, hence eliminating delays.
- Firms should encourage new forms of behaviour through more effective communication and better training, primarily during the operation of new technologies and strategies. However, this would be better accomplished within the environment of total quality management.

5.5 Recommendations for Future Research

The focus of this study is on the strategies of rapid developing construction firms and the growth indicators within the construction industry. Time and other resource limitations for the programme were taken into account in deciding on an appropriate design to address the research objectives.

Future research will consider much bigger sample as well as extending the research to the whole country to have country wide picture. Such a study will enable valuable insights to be gained on the strategies adoption by rapid developing construction firm in Ghana.



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APPENDICES

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APPENDIX 1

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Appendix A:

Interview Guide

(Face-to-Face approach)

Interview guide for building and civil Contractors/ Key informants within the building and civil Sector:

Owner/Managers

TOPIC: “Assessing the strategies of rapid developing construction firm in Ghana”.

The purpose of the interview is to identify growth strategies of rapid developing construction firm to enhance performance of other firms so that they grow continuously. Let me first of all assure you that data obtained through the interview is purely for academic purpose and will be treated confidential, and that no records kept will bear

your identity. I would also like to obtain your permission to record the interview using a tape recorder if you would not mind.

Investigation questions:

PART 1:

The Demographics Information

1. Name of firm
2. Company address/ Location
3. What is the mode of ownership?
 - a) Sole proprietor ☐
 - b) Limited Liability company ☐
 - c) Partnership ☐
4. For how long has your company being in existence?
5. Is the Managing Director different from the owner?
6. What contractor classification did you start with?
7. What is your present classification?

PART II

Management practices

1. How do you procure your projects?
2. Do you monitor and evaluate your projects?
3. How many workers do you have in all?
4. Do you at times give your workers performance enhancement training?
5. Do you use permanent employees like civil engineers, quantity surveyors and geodetic engineers of the company to do your work or you depend on hired professionals for a short period?
6. How far ahead does your company plan for strategic initiatives?

7. Have you incorporated the concept of strategic planning into your organization?
8. Is your organization using internet-based technologies (e.g. World Wide Web) to facilitate information and knowledge exchange between your professional staff?
9. Is your company conducting financial risk analysis to forecast and protect your company from economic fluctuates?
10. Do you have a maintenance programme for your plant and equipment?
11. Is your company conducting market analyses to proactively identify new and expand organization opportunities?
12. Is your company proactively positioning itself to protect against new competitors?
13. What are your plans for the future growth of your firm?

Conclusion

I wish to thank you for the insights I have gained from your rich experience and for taking some time off your busy schedule in order to make this meeting possible. I hope you would accord me the same opportunity when the need arises again.

Thank you for your time.

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Appendix B: QUESTIONNAIRE

PART III

14. Please indicate the degree of advantage that your company has over your competitors: Rank on a scale of 1-5.

1	2	3	4	5
Not extreme	Less extreme	Quite extreme	Extreme	Extremely

NO.	STRENGTH	RANK				
		1	2	3	4	5
1	Good client relationship					
2	Financial position					
3	Efficient organization structure					
4	Dynamic management skill					
5	Project performance record					
6	Technological advancement					
7	Ability to forecast market changes					
8	Loan repayment					
9	Quality of personnel					
10	Effectiveness of training programme					
11	Standardization of product or services					

12	Innovative projects management methods						
If other, please specify							

15. Please indicate the degree to which the following indicators affects the growth or success of your company: Rank on a scale of 1-5.

1	2	3	4	5
Not Significant	Less Significant	Moderately Significant	Significant	Very Significant

NO.	GROWTH INDICATORS	RANK				
		1	2	3	4	5
1	Innovation					
2	Financial stability					
3	Business efficiency					
4	Labour efficiency					
5	Capital					
6	Technological advancement					
7	Organizational competency					
8	Safety					
9	Staff turnover					
10	Productivity					
11	Profitability					
12	Motivation					
13	Risk control					
14	Continuous improvement					
15	Customer satisfaction					
If other, please specify						

