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Factors Affecting Project Performance Among Local Contractors

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A Thesis for the degree of Bachelor of Arts Project planning and Management

Factors affecting project performance among local contractors

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A thesis submitted to the faculty of Information and Communications University in partial fulfillment of the requirements for the degree of Bachelor of Arts in Project Planning and Management in the School of Humanity and Social Sciences

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ABSTRACT

The aim of this research was to review factors affecting project performance among local contractors in Zambia. The study was conducted in Lusaka District and recommended ways in which those factors can be used to improve performance. The study considered among other factors the failure to complete projects on time (lead time failure), abandoning projects on the initial project stages or halfway through (project abandonment), substandard project delivery (inferior project quality) in relation to foreign contractors working in Zambia.

Studies undertaken in Sub-Saharan region, Saudi Arabia, Hong Kong, and United Kingdom including Zambia as stated by Okpala and Aniekwau, (1988), Coyle et al, (1996) as well as Chan and Kumaraswamy, (1997) have shown that African local contractors fail to perform for many reasons. The literature review shows that incompetence, owners' interference, corruption, lack of cash flow management skills, lack of financial and technical capacity to execute complex projects, lagging behind in IT development, poor tender estimation and preparation, attitude toward adherence to condition and specifications of contract and delays in implementation; led to time and cost overrun, disputes, arbitration and total abandonment. The study was conducted to reveal perspectives of the consultants, local contractors as well as clients' view point regarding factors affecting Zambian contractors' project performance. In this research 45 respondents were interviewed using questionnaires and interview schedule. The data collected was quantitative in nature and was analyzed using Statistical Package for Social Sciences (SPSS, percentages and chi-square to establish the results to the study.

***The study showed that**: -*

- *Zambian contractor's attitude was of major concern; they divert funds towards buying pe rsonal expensive luxury cars and building their own houses or other business ventures on ce they got first or second installment payment.*
- *Corruption and lack of commitment were among other factors that affected project tender ing, awards and delayed payment.*
- *Incompetence, inexperience and lack of managerial skills led to poor site and time manag ement and incorrect estimates etc.*

Recommendations were made to the Local contractors, their association and Ministry of Works and Supply to: -

- *Amend the NCZ act 13 of 2003 so that the council can put up stringent measure to be able to regulate and punish nonconformance contractors.*
- *Provide training programmes to facilitate skills and professional development transfer to local contractors.*
- *Establish cooperative schemes for the local contractors to access loans, equipment and ra w materials etc.*

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CHAPTER ONE

1.0 Introduction

1.1 Background to the problem

Construction practice has undergone a great deal of development in response to the dynamic nature of human needs and infrastructure Anumba et al. (2008). The introduction of information communication technology, manufacturing concepts, green economy etc. are the issues that the construction practice have implemented to better its process.

Managing projects is one of the oldest and most respected accomplishments of mankind with inputs from builders, architects, masons and craftsmen Irefin (2013). The construction of the pyramids, ancient cities, the Great Wall of China and other wonders of the World are such evidences. As construction practice is in high demand, there is also a higher need for adequate successful planning and controlling of resources during the process of construction. The construction practice entails the entire system that defines procedure and standards for all phases of the building process; dictating responsibilities and interaction among the building industry professionals, who are in charge of making decisions and may also be involved in construction practice as Project Managers (PM) Horsely et al (2003).

The construction industry in both developed and developing countries is the sector of the economy that transforms various resources into constructed facilities, Jimoh and Achuenu (2013).

Construction industry has complexity in its nature because it contains large number of parties as clients, contractors, consultants, stakeholders, shareholders and regulators.

There is probably no sector that has significant implications on the daily lives of human creatures than the construction industry. It is universally accepted that for example, the wells and bore holes where human beings get water as a source of life, the buildings where we live and work, the roads and bridges we drive on, the utility distribution systems we use, the railways, airports, ferries and harbours we travel and trade from, dams and power lines that give us electricity, are all products of this vital industry.

In Zambia for more than a decade now, most of the construction projects undertaken by local contractors are either abandoned, delayed and or of poor quality posing an adverse effect in the achievement of entrepreneurship development among Zambian contractors.

Several factors affect contractor performance in the Zambian construction industry. Contractor performance is often responsible for either a successful project that reflects strong contractor skills and site management or a failure that reflects the contractor's lack of knowledge, skills and experience. Any factor affecting contractor performance either negatively or positively can be avoided or enhanced using project management skills. This study aims at identifying the major factors affecting contractor performance among local contractors in Zambia; it further assesses the relative importance of these factors from the consultants', contractors' and clients' perspectives and identifies the role of the Zambian government in promoting local contractors.

Key words: Performance, Local contractors, Environment factors, Contractor's factors, Client's factors.

Construction project development involves numerous parties, various processes, phases and stages of work and a great deal of inputs from both the public and private sectors with the major aim of bringing the project to a successful conclusion (Takim and Akintoye, 2002). The level of success in carrying out construction projects depends on the quality of management, financial, technical and organizational performance of the respective parties. This needs taking into account the associated risk management, business environment, economic and political stability. The finished product in any industry requires satisfying a certain standard to provide customer satisfaction and value for money.

In the construction industry, achieving quality of the finished product is no less than in any other industry (Chan and Tam, 2000). A construction project is acknowledged as successful when it is completed on time, within budget, and in accordance with specifications and in accordance to stakeholders' satisfaction (Takim and Akintoye, 2002). In the same argument, Teo and Ofori (1999) inform us that the main rationale and impetus for the development and implementation of procurement arrangements for construction projects is to increase the likelihood of the participants in the construction process to satisfy the client's objectives. However, as recently observed by Eshassi et al. (2009) the business environment for the construction sector continues to change rapidly. In such circumstances the changes from the environment affect the contractor's performance.

In South Africa for example, Hanson et al. (2003) informs us of several factors including conflict, poor workmanship, and incompetence of contractors identified as dissatisfaction factors negatively

affecting project performance. Relatedly, a study by Mbachu and Nkando (2007) in South Africa established that quality and attitude to service were some of the factors that affected delivery of projects. Such contextual analysis enables us have unique examples for understanding the factors or challenges that affect the contractor's performance.

In the construction process, we need to measure contractors' performance and the factors affecting it. Project performance can be investigated and evaluated using a large number of performance indicators, expressed by factors such as time, cost, quality, client satisfaction, client changes, and health and safety (Cheung et al., 2004; DETR, 2000). Many studies have investigated the project performance factors that impact contractor performance in developing countries. A shortage of manpower skills, poor supervision and site management, unsuitable leadership, and equipment failure have all contributed to construction delays in the United Arab Emirates, as Faridi and El Sayegh (2006) have reported. Hanson et al. (2003) studied the client dissatisfaction factors in South Africa's building industry and found poor workmanship and contractor incompetence to be the main factors affecting project performance, and thus contractor performance. Furthermore, customer satisfaction was found to be one of the factors affecting contractor performance and reputation in Gharakhani et al. (2013). Zulu and Chileshe (2008) investigated contactor performance in Zambia and found it below expectations, arguing that nothing can be learned from local ongoing projects that have not been completed or have been delayed. They concluded that contractors' poor performance has huge implications on competitiveness. Enshassi et al. (2009) found that the construction industry is complex, as it includes large numbers of parties as owners (or clients), contractors, consultants, stakeholders, and regulators. In a study conducted in Palestine, UNRWA (2006) found that local construction projects suffered from poor performance especially poor contractor Performance for many reasons, such as the unavailability of materials, excessive amendments to designs and drawings, poor coordination among respondents, ineffective monitoring and feedback, and lack of leadership skills.

1.2 Statement of the problem

The case to consider in this study is the situation in Lusaka district where most of the project undertaken by local contractors are either abandoned, delayed and or of poor quality posing an adverse effect in the achievement of entrepreneurship development among Zambian contractors.

The situation in Lusaka district is critical and of major concern culminating in tragedy, embedded by prevailing poverty levels, corruption syndrome, inadequate funding and intensive competition with experienced foreign contractors.

Despite improvements in government policy by establishing National Council for construction (NCC), and Citizen Empowerment Commission CEEC there are still alarming levels of poor projects performance among local contractors majority of which are SMEs. The rates are attributed to lack of project management skill and inexperience on how to utilize and manage performance indicators.

1.3 Aim of the study

The aim of the study was to investigate the factors affecting project performance among local contractors.

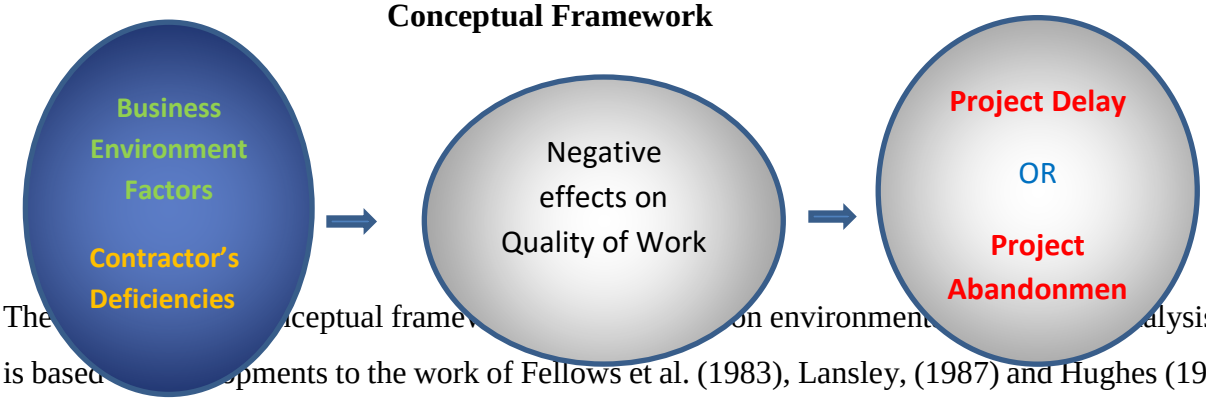
Specific objectives of the study

1. To identify factors affecting project performance among local contractors in Lusaka district.
2. To access the Zambian government's policy in promoting local contractors in Lusaka district.
3. To determine solution to the project performance among local contractors in Lusaka district.

1.4 Research questions

1. What factors are affecting the project performance of local contractors in Lusaka district?
2. What is the Zambian government's policy in promoting local contractors in Lusaka?
3. What are the solutions to the project performance of local contractors in Lusaka district?

Conceptual Framework



The ceptual frame on environment alysis. It is based pments to the work of Fellows et al. (1983), Lansley, (1987) and Hughes (1990) which emphasise that factors in the environment are crucially important to business. Lansley (1987) argued that the framework views the environment in terms of the nature of the effect on the

business organisation of changes, which take place within the environment. The rationale for the argument is that a changing environment demands construction organisations to be responsive and dynamic (Hughes, 1990).

1.6 Definition of key terms

Business environment: These are factors in the environments which are crucially important to business

Contractor: this is an organization or a group of organizations who have a legal obligation to execute the project on behalf of the client.

Client: this is an individual or an organization who legally owners the project.

Quality of Work: In construction projects, quality of work is associated with adherence to conditions of the contract and specifications stipulated in the contract documents in their entirety during the execution of the project

Project delay: Failure to complete a projects on Time. Time on construction projects is concerned with planning of the work over the anticipated duration in relation to its requirements with full appreciation of the resources needed and resources available

Project abandonment: this is a premature permanent closure of the project by the contractor.

1.7 Significance of the Study

This research is significant because the benefits of identifying factors which affect Zambian local contractors can start a chain of reaction of positive effect that can be passed on to the upcoming entrepreneurs, existing contractors, local government, non-governmental organizations, public institutions, mining industry, engineering institutions, the Community, the nation and future generations. This study can reveal areas of weakness, incompetency and attitudes of local contractors and how these affect the project performance in the process of implementation and establish areas which need amendment in order to address ineffective, inequality, inefficiencies and incapability among local contractors. This research will be beneficial to local contractors, engineering institutions, local government, public organization, ministries, upcoming local entrepreneurs, curriculum development centre, Zambia Bureau of Standard, consumer protection

commission, National Council for Construction, mining industry, construction industry and the community where these projects are undertaken to mention but a few. The local contractors are factors of national development because they enhance entrepreneurship, create jobs to the citizens and save the money they are paid in Zambia hence the need to be efficient, effective and competent in project management especially in construction industry.

1.8 Organisation of the Study

This report has six chapters. Chapter One contains the background to the study, statement of the problem, objectives of the study, research questions, conceptual framework, significance of the study and structure of the dissertation. Chapter Two reviews the relevant literature on the factors affecting local contractors in Zambia.

Chapter Three focuses on the methodology of the study. It describes the study design, the target population, the sampling procedure, sample size, the research instruments used, data and sources, data processing and analysis, the ethical issues considerations and the challenges from the fieldwork. Chapter four contains the presentation of findings. Chapter five discusses the findings while chapter six gives conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter, discussion of performance inhibiting factors on construction projects is centred on some of the studies conducted in the sub-Saharan region. According to Chan and Kumaraswamy (1997) respondents' interpretation of causes of project delays in Hong Kong were different from

the researches done in Saudi Arabia and Nigeria. Additionally, Elhag et al.(2005) observed that factors identified in Okpala and Aniekwu's (1988) study of causes of high costs of construction in Nigeria were largely influenced by the locality of the country in which the research was conducted. Thus the researcher noted that underdeveloped economies tend to exert different influences on construction costs compared to developed economies such as the UK. Consequently, for purposes of this study, a review of factors involving countries in the sub-Saharan region was considered more relevant than a review of factors from countries of other regions like Europe and America.

2.1 Changing Measures of Construction Project Performance

Atkinson (1999) explained that in the early 1990s, project success was considered to be tied to performance measures, which in turn were tied to project objectives. At the project level, success was measured by the project duration, monetary cost, and project performance. Atkinson called the time, cost, and quality criteria the "Iron Triangle." However, he argued that using the Iron Triangle of project management, time, cost, and quality as the criteria of success may have resulted in biased measurement of project management success. He proposed to shift the focus of measurement for project management from the exclusive process driven criteria to four major categories for success which are: the Iron Triangle, the Information System, Stakeholder Community Benefits, and Organizational Benefits.

A significant number of literatures emphasized more the time aspect as an indicator for project success. Nkado (1995) quoted NEDO Faster Building for Commerce published in 1988, which regarded completing projects on time as a symbol of an efficient construction industry. The Latham Report (1994) suggested that ensuring timely delivery of projects is one of the important needs of clients of the construction industry.

The Project Management Book of Knowledge (2007) states that project management knowledge areas are project integration management, scope management, time management, cost management, quality management, human resource management, communication management, risk management, procurement management, safety management, environmental management, financial management and claim management on which success measures ought to be based. Sustainable development concepts, namely, environmental respect, social integration and social

economy, are factors with growing importance as indicators of successful performance of infrastructure projects.

2.1.1 Study Performance Indicators

Tahir and Darton (2010) confessed that measuring the performance of any construction project in terms of success or failure, despite looking simple, is in fact a very complex process. Modern construction projects even moderate in size are generally multidisciplinary in nature and they involve participation of designers, contractors, subcontractors, specialists, construction managers, and consultants. The objectives or goals of all participants need not be the same even in a given project. Tahir and Darton that to define the success or failure of a project without specifying the participant and without specifying the criteria for judging the performance holds no meaning to measuring the performance of any construction project. The present study has identified quality of work, timely completion, tender estimation, and tender preparation as measures of performance.

2.1.2 Quality of Work

Soanes and Steven (2008) noted that in construction projects, quality of work is associated with adherence to conditions of the contract and specifications stipulated in the contract documents in their entirety during the execution of the project. The Concise Oxford English Dictionary defines quality as the standard of something as measured against other things of a similar kind. However, Soanes and Steven showed that there are two distinct areas in which quality of work achieved is measured for success. The first one is by measuring and testing of construction materials forming the elements of the work product in situ or in the materials laboratory against a standard measure or specification. These materials must fulfill the prescribed characteristics in the contract documents for them to be incorporated into the construction process. Similarly, the work product must be within prescribed standard characteristics to be considered successful. This is generally fulfilled through the testing of the product at different stages during or after each job process. The second aspect of quality of work concerns what beneficiaries see and feel when making use of the construction product. This is a product of workmanship. Soanes and Steven (2008) noted that workmanship has been defined in the Concise Oxford English Dictionary as the degree of skill with which a product is made or job is done. Some aspects of workmanship are fulfilled

automatically when project specifications are adhered to. For example, when the surfacing stone sizes are within tolerance, the road will be nice and smooth to drive on. Similarly, when the final layer of a road base is within the stipulated level tolerance, the road will be comfortable to ride on. However, the degree of riding comfort of a road, all other things being equal, will depend on how the level tolerance has been controlled within the lower and upper limits. The road will be more comfortable to ride on where the upper and lower tolerance limits have been maintained to the minimum than where they have been allowed to fluctuate from the uppermost to the lowermost limits. Griffin (1992) described the organization and management of quality control for small works, combined the phrases "quality of work" and "workmanship." He labelled quality of work (workmanship) as involving, ensuring that the attributes of the work satisfy the specified needs. Griffin further described quality of work as measuring the ongoing and finished works against recognized standards and implementing quality control and quality assurance procedures. Quality is meeting the customer requirements.

2.1.3. Timely Completion of Construction Projects

According to Elinwa and Joshua (2001) Time on construction projects is concerned with (i) planning of the work over the anticipated duration (programme) in relation to its requirements with full appreciation of the resources needed and resources available; planning for utilization sets the basis or yardstick (plan) against which progress can be monitored and assessed; (ii) progressing which follows the programming of the work and compares the work undertaken against the plan allowing for the redistribution of resources, if necessary, to speed up the work if it is falling behind the plan. Kaming et al (1997) defined time overrun as the delay beyond planned completion dates traceable to the contractors. The construction industry plays a major role in the development of many countries. At the macro level, delay will lead to a negative rate of national economic growth and monetary loss. Kaming and others noted that at the micro level, a delayed project can lead to time and cost overruns, disputes, arbitration, and even total abandonment. Elinwa and Joshua (2001) confesses that delays in construction projects are global phenomena and the sub-Saharan region is no exception. This trend has become the norm rather than the exception, especially in developing countries. This scenario, thus, constitutes a major risk and debilitating effect on relationships and cash flow among employers, consultants, and contractors, which can lead to

exhaustive disputes, arbitrations, and expensive litigations. The significance of this impact, therefore, clearly justifies the concern over such a chronic problem facing the industry.

2.1.4. Tender Preparation

Laryea (2010) defined a tender or bid as a formal offer to supply goods or services for an agreed price. Tendering is the process used by many construction clients to obtain the programme and price for building a project]. Laryea explained that tendering consists of three parts: deciding on the type of contract and the terms and conditions that would form the basis of the contractual relationship and under which the work will be done; selecting the most suitable contractor given the budget and time available; and establishing the contract price. Chilipunde (2010) said that important elements at tender preparation stage include the following: (i) Establishment of a realistic contract period on which the tender may be based. (ii) Identification of construction methods. (iii) Assessment of method related items which affect the bid price. (iv) Making provisions to aid the build-up of contract preliminaries and plant expenditures. (v) Making provisions to aid the tendering/estimating process. Chilipunde further stated that to arrive at the project tender price, the costs arising from elements in (i) to (iv) including overheads and mark-up, compiled by the estimator, have to be adjudicated by senior management or the owner of the organization. The purpose of the adjudication is to assess the risk inherent in the tender and decide upon a competitive bid price.

2.1.5. Tender Estimation

Laryea (2010) explained that if the contract price is correct, both the supply chain and construction project will function efficiently and effectively and the whole project will be a success. Laryea added that the engineer's estimate is crucial because it will affect the successful implementation of the supply chain management during the construction project. Only if the engineer's estimate is correct will it be possible to attain the level of service required to produce the right quality of products, at the correct time and budget.

Rogerson (2000) observed that when the number of bidders is large, as is the case in a slow economy, an owner runs a significant risk of selecting a contractor that has either accidentally or

deliberately submitted an unrealistically low price. Tenders for local contractors in developing countries should not be rejected on the basis of tender price but rather to find the suitable ways of making sure that the engineer's estimates are correct and relevant for each individual project.

Cooke and Williams (1998) noted that cost estimation is an experience-based process. The realisation and understanding of cost determinants enrich the competence of cost estimators and hence, along with decent cost forecasting techniques, deliver more reliable and accurate cost estimates. Cooke and Williams further noted that smaller contractors who often deliver the work packages have to compute their estimates from first principles to be able to furnish accurate quotes to the larger contractors. They emphasized the need for computing estimates from first principles for local contractors in developing countries. They observed that the use of bidding theories by senior managers in adjudicating tenders is only relevant in a stable market place.

2.2 Contractors' Performance Constraints and Inhibiting Factors

Kululanga (2012) defined Constraint as a constraining condition, agency, or force that limits the systems' performance in a given context/environment. Kululanga said that removing constraints from bottleneck(s) is the most effective means of improving overall system performance. He observed that once the existing constraints are removed, new ones emerge. This calls for continued research in order to establish emerging constraints with a view to reduce or minimize their impact on construction projects and sustain successful performance. The terms "performance constraints" and "performance inhibiting factors" have the same meaning in this study and have been used interchangeably.

2.3 Review of African countries

2.3.1 Nigeria

Adams (1997) identified the following to be constraints on indigenous contractors' performance in Nigeria: uncertainties in supplies and prices of materials, obtaining interim payment, procuring work, access to capital, negotiating variation payment, access to plant and equipment, inappropriate contract conditions, maintaining plant and equipment, resolving contract disputes, meeting contract deadlines, design changes, incomplete contract documents, transporting materials

and equipment, materials control on site, providing reliable tenders, communicating with client/representatives, shortages of skilled labour, public image, accounting of financial management, inadequate supervision by client, project planning and site management, technical know-how, commitment to construction, company organization, personnel management, providing quality workmanship, corruption, changes in government and economy, prejudice against indigenous contractors' competence, theft and fraud by own employees, double taxation, and breach of contract by public clients.

Dlakwa and Culpin (1990) revealed the following delay factors: poor contract management, financing and payment of completed works, changes in site conditions, shortages of materials, imported materials and plant items, design changes, subcontractors and nominated suppliers, contractor's financial difficulties, client's cash flow problem, architect's incomplete drawing, subcontractor's slow mobilization, equipment breakdown and maintenance problem, suppliers late delivery of ordered materials, incomplete structural drawings, contractor's planning and scheduling problems, price escalation and subcontractor's financial difficulties, contractors' difficulties in receiving payments from public agencies, inadequate public agencies' budgets, improper payment to contractor for completed work, problems in planning, unrealistic time estimation, frequent changes in material and design, and noncompliance with the contract conditions.

2.3.2 Ghana

Fugar and Agyakwah-Baah (2010) found the following to be causes of delays in building construction projects in Ghana: delay in honoring payment certificates, underestimation of cost of projects, underestimation of complexity of projects, difficulty in accessing bank credit, poor supervision, underestimation of time for completion by contractors, shortage of materials, poor professional management, fluctuation of prices, poor site management, construction methods, delay in instructions from consultants, late deliveries of materials, lack of programme of works, delay by subcontractors, poor design, breakdown of equipment, client initiated variations, obtaining permit from municipality, insufficient communication between parties, necessary variations, shortage of skilled labour, legal disputes, unfavourable site conditions, foundation

conditions encountered on site, discrepancy between design specification and building code, bad weather conditions, mistakes with soil investigations, unskilled equipment operators, accidents during construction, shortage of unskilled labour, and public holidays.

Frimpong et al. (2003) studied factors that cause cost overruns in construction of ground water projects in Ghana. Frimpong explained that the contractors and consultants mentioned monthly payments difficulties as the most important cost overruns factor, while owners ranked poor contractor management as the most important factor. Frimpong added that despite some difference in viewpoints among the three groups surveyed, there is a high degree of agreement among them with respect to their ranking of the factors. The three groups felt that the major factors that can cause excessive groundwater project cost overruns in developing countries are poor contractor management, monthly payment difficulties, material procurement, poor technical performances, and escalation of material prices.

2.3.4 Swaziland

Thwala and Mvubu (2008) identified the following factors as constraints to the success of local contractors in Swaziland: lack of business management skills, lack of financial management skills, exorbitant interest rates from banks, compulsory business management services, risks involved in construction industry, lack of access to finance both during preconstruction and construction, bad relationships with suppliers, late payments of completed work by the client, lack of collateral, bidding for projects beyond contractor technical or financial capacity, lack of skills to properly program projects resources in monthly segments for healthy cash flow, inability to prepare documents for timely payment, misunderstanding of terms of contract and inability to use applicable contractual instruments to demand performance by client.

2.3.5 Malawi

Kululanga (2012) explained that training (to teach writing and reading skills, financial management and business management skills), business management skills (to ensure sustainable business enterprises), financial management (to manage cash flow, among other things), unethical manners (to combat collusion, professional pricing the same job for more than one bidder, among

others) and information technology (to make specific software available such as those required to aid preparation of works programmes) were areas identified to be amongst constraints and challenges faced by local contractors in Malawi.

According National Construction Industry of Council of Malawi (2012) the causes of delay in traditional contracts were due to owner interference, inexperienced contractor, improper payments of completed work, labour productivity, poor site management, slow decision making, construction methods and improper planning subcontractors.

2.3.6 Zambia

According to Coyle et al. (1996) the Zambian construction industry has undergone some change due to the changing nature of the market place, globalisation of the economy and markets, the upsurge of technology including information technology (IT), the changes in government policy including privatisation and liberalisation and strategic changes in supply chains. Nsabika (2002) explained that the changing nature of the market place With the liberalisation and privatisation programmes which were put into effect in the early 1990s almost complete, construction customers no longer have to stay loyal to their former sister companies under the Zambia Industrial and Mining Corporation (ZIMCO) group of companies, the Industrial Development Corporation (INDECO) group of companies or the Zambia Consolidated Copper Mines (ZCCM). INDECO and ZCCM jointly formed ZIMCO, which until its unbundling and subsequent privatisation of the individual corporations was the second largest corporation in Africa.

Nsabika (2002) added that the changes have a fundamental implication on the way ZIMCO construction contractors used to conduct business. The privatised companies have become increasingly more knowledgeable about construction products and have become much more demanding about price and quality. Quality and delivery are and will remain the most critical factors in the market. Moreover, they have a free market from which to choose contractors from.

2.4 Globalisation of the economy and markets

Chonya (2002) mentioned that the Zambian economy is experiencing the full effects of globalisation such as floatation of the Kwacha on the exchange market. Mashamba (2001) noted that international players have entered the Zambian construction market and are a serious threat to the local contractors.

According to Shachinda (2002) the number of international firms winning multimillion projects especially donor funded as well as projects attracting international financial investment, is on the increase. Suddenly, local contractors require an international redibility beyond the profile and reputation that they used to enjoy in Zambia. Moreover, they find they need to adapt to meet the requirements of clients from different cultures and with disparate values.

Nsabika (2002) observes that the Zambian financial market has not been very successful, and this has made the raising of capital and attraction of private sector investment difficult. Krebs, who is quoted by Nsabika (Ibid), argued that government bonds and treasury bills, which have a negative effect on the whole Zambian economy, dominated the financial markets. As observed above, there are serious threats and opportunities in the globalised Zambian economy and construction market, and this requires paradigm shifts in business alignment and operations.

2.5 Technological developments including IT

Shakantu (2000) said that a key driver of transformation for the Zambian construction industry is technological change. Global telephony, satellite communications and video links are now widely available Information and communication technology (ICT) is significantly influencing technological change. Overby et al. (2001) explained that ICT has a pronounced effect on the way the industry communicates and its ability to access information. Improvements in communication capabilities have released the potential for construction professionals to have greater access to data, knowledge and other support nationally and otherwise. The developments in information technology are facilitating information flow through all aspects of the Zambian construction industry including design, construction, deployment, decommissioning, finance, marketing and sales as completely integrated packages. There is an argument for potentially using the Internet as

a tool to raise efficiency of the industry. Overby et al. (2001) added that the Internet commerce revolution could transform organisations and organisational processes and create new opportunities and challenges for international marketers.

Shakantu (2000) mentioned that the impact of changing computer technology on the construction industry has been far reaching. Complex tasks such as scheduling are much more routine due to the use of desktop computers. Simulations of entire construction processes and systems can be developed to determine the optimal approach to achieving desired performance. Bowersox and Closs (1996) observed that a range of IT to support the complete range of business activities and help revolutionise ways of working has been rapidly developing.

Matipa and Zulu (2000) explained that technological uptake on Zambian projects has been slow despite the documented benefits of this resource. Kashweka (2001) argued that industry operations have largely remained traditional, with low technology applications used to run construction business.

2.7 Changes in government policy including privatisation and liberalisation

Shakantu (1993) stated that the shift in government policy is another driver of change in the construction industry. Economic regulation was drastically reduced in favour of privatisation and liberalisation. The reform agenda has extended beyond issues of stabilisation and prudent economic management to regarding the private sector activity as the main engine for growth. The government is concerned about fiscal and monetary policy discipline. Mukalula (1996) notes that client organisations' construction budgets decrease and economics is winning over tradition. Clients are demanding real improvement in key areas of interest to them. Among the major effects of these economic changes has been the adjustment of procurement strategies to those emphasising value for money.

CHAPTER THREE RESEARCH METHODOLOGY

3.1 Introduction

Research Methodology chapter describes the approach that the study followed. The various techniques and methods that were used to select respondents to participate in the study have been outlined. This chapter describes the study area, the study design, data and source, the target population, sample size for the study, sampling techniques employed, the research instrument used, data processing and analysis, and the ethical issues arising from the research. The chapter ends with a statement on the challenge from the field.

3.2 Study Area

Map of Lusaka District

3.3 Research Design

The study adopted the cross-sectional design. In this type of study design, either the entire population or a subset of the population is selected, and from these individuals, data was collected to help answer research questions of interest. In cross-sectional studies, data are collected from the research participants at a defined point in time or relatively brief time period. The data are typically collected from multiple groups. According to Mann (2003), cross-sectional design helps to enrich a study because it helps to study a large number of people within a short period and determine the causes and prevalence of a phenomenon which other study design cannot do. Cross-sectional design was used in the study because data had to be collected from the study population once, within a specific period.

The cross-sectional design supports the use of different methods to collect data from selected respondents in a single study (Mann, 2003). In view of this, the mixed method technique (triangulation) was used in the study. This method involves triangulating both quantitative and qualitative methods to collect data at the same time. Creswell (2003) supports the use of mixed method approach in social sciences, because the technique has become increasingly popular as a legitimate research technique. Mertens (2003) opined that the mixed method helps in having a better understanding of the research problem by converging numeric trends from quantitative data and specific details from qualitative data. Neuman (2003) recommends the use of the mixed method when he said that combining different approaches in a study is the best method to be adopted, because it is better to look at a situation from several angles than to look at it from one direction.

Mikkelsen (1995) identified two forms of mixed method which are “within method” triangulation and “between method” triangulation. Within method triangulation involves using the same method on different occasions whilst the “between method” triangulation is where different methods are used in the same study. The study used the “between method” triangulation. In this study, both interview schedule (quantitative method), and in-depth interview and observation (qualitative methods) were used to collect data from the field.

Some criticisms have been levelled against the use of mixed method approach. For example, Creswell (2003), described the use of mixed method is time consuming, while Sarantakos (2005) observed that mixed method is difficult to replicate, and therefore advised that it is not more valuable than the single-method procedure, which can be more suitable, useful and meaningful to answer certain questions.

Despite the criticisms, several authors support the use of the mixed method because it offers many advantages which far outweigh the disadvantages. Researchers observed that the mixed method opens the way for richer and potentially more valid interpretations; it helps the researcher to gain better understanding of the phenomenon being studied, and it also helps to complement the strength of the qualitative and quantitative methods (Depoy & Gitlin, 2005). Similarly, Henderson (1991) opined that the mixed method helps to reduce bias because it helps to "guard against the accusation that a study's findings are simply the artifact of a single method, and a single data source".

3.4 Data and Sources

Both primary and secondary data were used in the study. Primary data was collected using questionnaires, in-depth interviews and observation. The primary data was collected from local contractors, consultants and clients in Lusaka district.

Secondary materials were obtained from books, journals, newspapers, articles, reports, the internet, as well as conference and working papers that concern themselves with the topic under investigation.

3.5 Study population

The study population consisted of the following:

- Road Development Agency
- Association of Building and Civil Engineering Contractors
- Zambia Development Agency
- Engineering Institution of Zambia

- National Association for Medium and Small Scale Contractors
- National Council for Construction

The study population comprised of local contractors who are either members of National Association for Medium and Small Scale Contractors or Association of Building and Civil Engineering Contractors. The study population also consisted of consultants from the following organization: Engineering Institution of Zambia, National Council for Construction and Zambia Development Agency. Since local contractors have done a number of projects for Road Development Agency, this organization was considered a client in this study.

3.6 Sample for the Study

The table below gives the summary of the sample needed for the study.

The Total Sample

Organisations	Sample unit	Respondents	Sample size
National Association for Medium and Small Scale Contractors	Local Contractors	Directors and Employees	20
Association of Building and Civil Engineering Contractors	Local Contractors	Directors and Employees	20
Road Development Agency	Client	Directors	2
National Council For Construction	Consultant	Director	1
Zambia Development Agency	Consultant	Director	1
Engineering Institution of Zambia	Consultant	Director	1
Total			45

3.6.1 Sampling Techniques

The non-probability sampling techniques were used to select the 45 respondents. Specifically the convenient, the snow-ball and the purposive sampling techniques were employed.

3.7 Research Instruments

In consonance with the mixed method design, interview schedule, interview guide and observation checklist were developed to collect the primary data from the field. These instruments were chosen because they are the most appropriate. The interview schedule was used because of its known

advantages of building good rapport, creating a relaxed and healthy atmosphere in which respondents easily cooperate, answer questions, and clear misapprehension about any aspect of a study (Kumekpor, 2002). The interview schedule was semi-structured and comprised of many close ended questions. This facilitated easy administration of the interview schedules. It also helped to avoid irrelevant answers from respondents, and this made entering data into the computer fairly easy. In-depth interviews were used to collect information from the five key informants. The interview guide for the In-depth-interviews was in semi-structured format in line with the view of Hockey, Robinson and Meah's (2008) that semi-structured interviews are flexible, and they allow for the exploration of emerging themes and ideas. In other words, In-depth-interviews provide some scope for asking for more relevant information through additional questions often noted when it prompts the interviewer. Observation checklist is another instrument that was used in the study.

3.8 Training of Field Assistants

Two assistants were trained to help in the administration of the interview schedule. The objectives of the study were explained to the assistants so that they could have knowledge about the research. The training covered; how to identify respondents, recording and management of data. The assistants were briefed on how to manage ethical issues in the study.

3.9 Data Processing and Analysis

The data collected from the field was first cross-checked and edited to ensure that there are no mistakes in the responses and the information given is relevant. The data was then coded and fed into the computer. The Statistical Product for Service Solutions (SPSS version 16) was employed to process and analyse the interview schedules. The in-depth interviews were analysed manually. The data from the in-depth interviews was transcribed, categorised under specific themes and was used for analysis. Frequencies, percentages, averages, proportions and diagrams were used to present the results. Inferential statistical technique in the form of factor analysis was used to analyse the factors inhibiting local contractors to complete projects on time.

3.10 Ethical consideration

Proper permission was obtained from Lusaka District Commissioner. During the administration of the interview schedule, the researcher identified himself to the respondents to avoid impersonation. The purpose of the study and the nature of the interview schedule were made known to the respondents. Participation in the study was not by force but on the willingness of respondents to participate. Anonymity of respondents was respected. During the field work all forms of identification including names, addresses and telephone numbers of respondents were avoided.

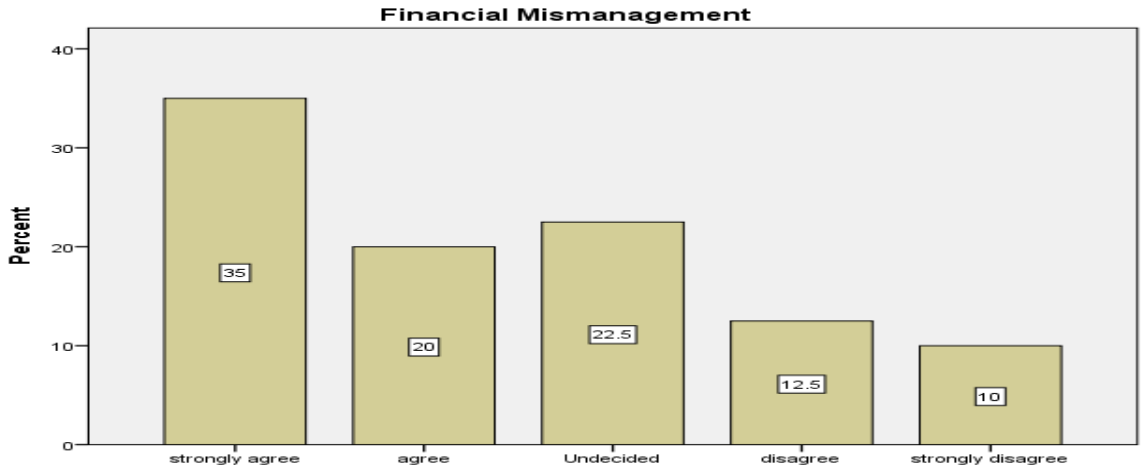
3.11 Challenges from the Field Work

Since it was a case study of Lusaka district, the findings may necessarily not be generalized to other parts of the country. It was difficult to collect information from respondents at the first time as they seemed to be busy. Resources and time were other constraints in this study particularly that the researcher had no financial assistance but self-sponsored the study. Under inadequate time, the period was very short in which to conduct and conclude the study effectively because the organisations are far apart where the information was collected from. The researcher was required to move from one organisation to another and some of them had to make the researcher wait for some hours before access to the director could be granted. Other organisations had to postpone the appointment.

CHAPTER FOUR PRESENTATION OF FINDINGS

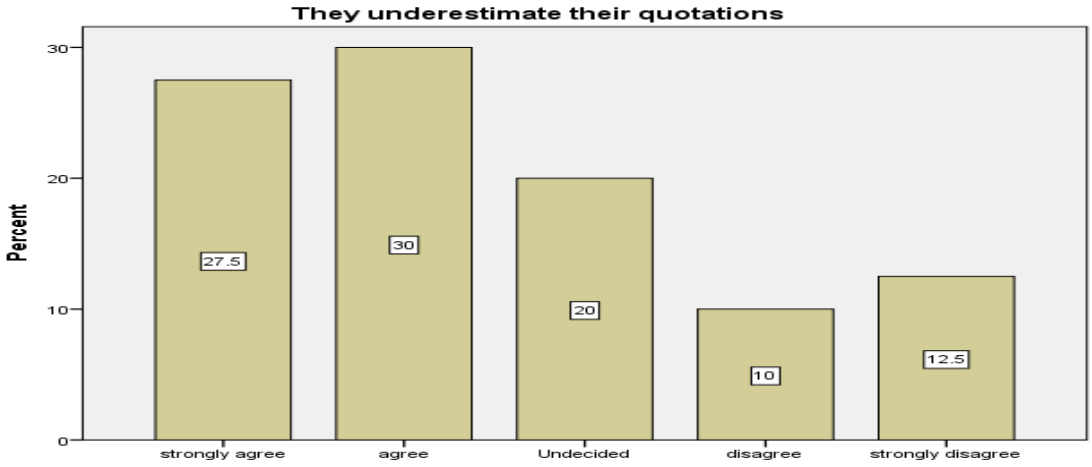
4.0 What do you feel are the major reasons why many Zambian contractors abandon the projects before completion?

4.1.1 Financial Mismanagement



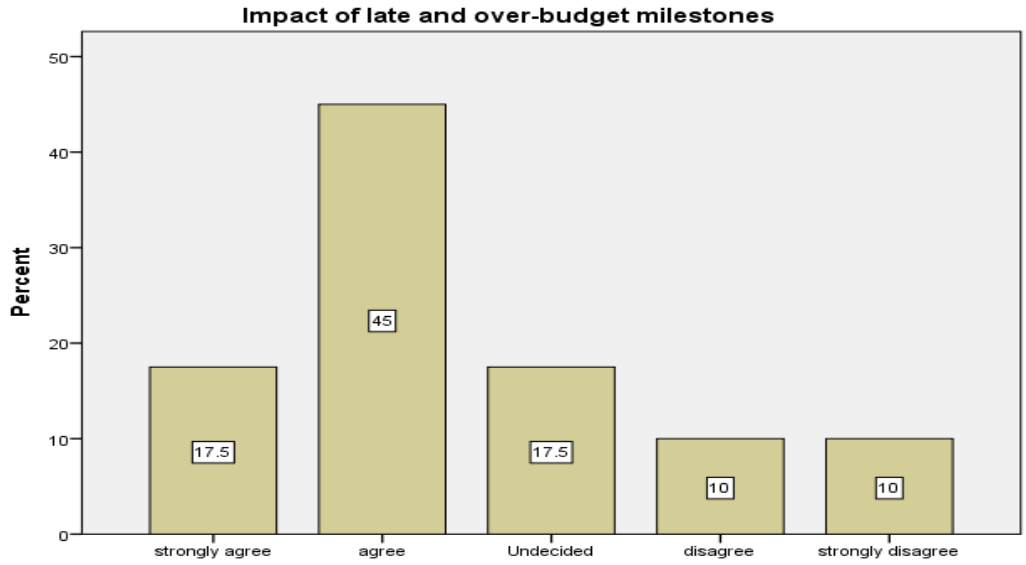
Respondents were asked to give their view on financial mismanagement by local contractors as factor which contributes to delay or abandonment of projects. 35% strongly agreed to the assertion, 20% agreed, 22.5% were undecided, 12.5% disagreed while 10% strongly disagreed with the above assertion. This means that 22.5% of the respondents saw financial mismanagement as being not the factor which leads to delay or abandonment of projects by local contractors.

4.1.2 Local contractors' underestimate of quotations



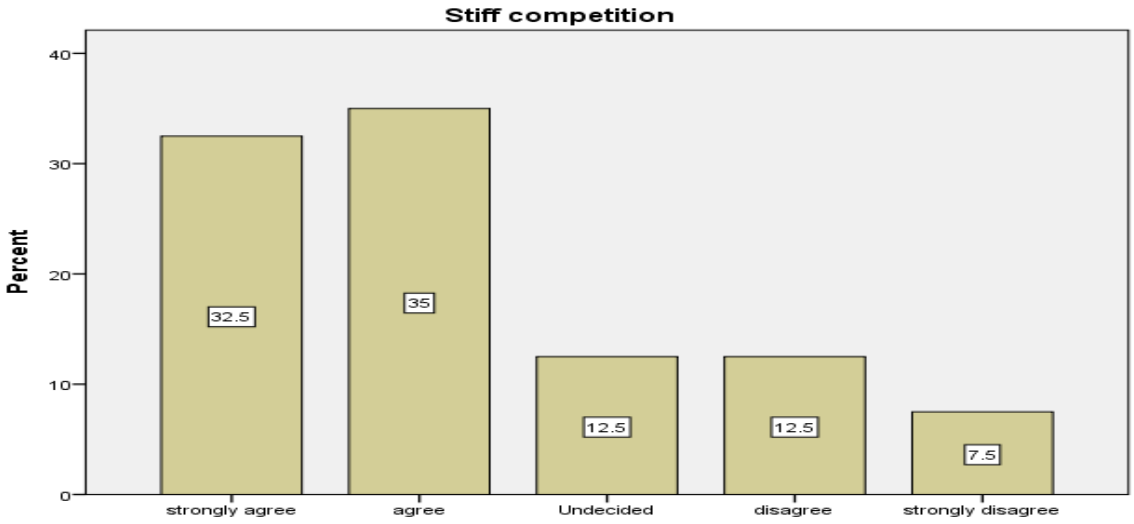
Respondents were requested to agree or disagree to the assertion which stated that local contractors' underestimation of their quotations lead to delaying or abandoning of the projects. 27.5% strongly agree and the majority of the respondents (30%) agree with the statement. 20% of the respondents did not know whether the above assertion was true or false. 10% disagree and 12.5% strongly disagree with the statement which said that local contractors' underestimation of their quotations lead to delay or abandonment of the projects.

4.1.3 Occurency and impact of late and over-budget millestones



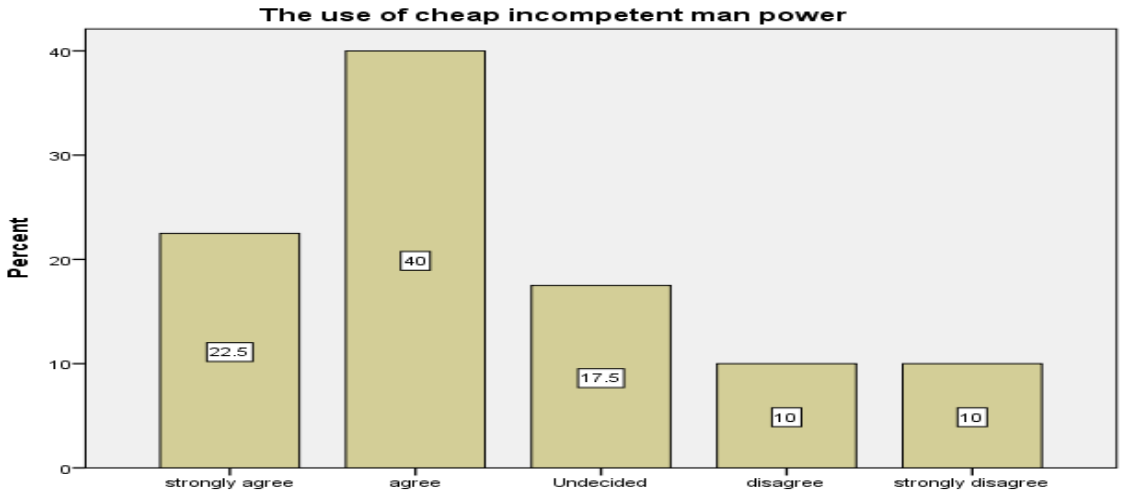
Majority of the respondents 45% agreed that late and over-budget milestones have an impact on project delivery. Those respondents that strongly agreed and who were undecided had 17.5% respectively. Respondents who disagreed were 10% equal to those who strongly disagreed, these felt that late and over-budget milestones have no an impact on the completion of the project.

4.1.4 Stiff competition



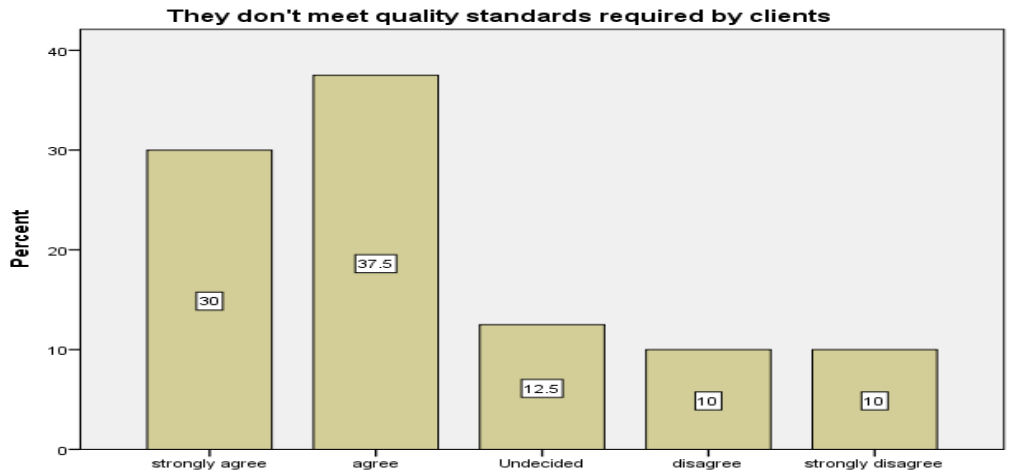
67.5% of the respondents felt that stiff competition was one of the factors which affected the local contractors. 12.5% did not know whether stiff competition was a factor that had negative effect on local contractors. 12.5% of the respondents disagreed and 7.5% of the respondents strongly felt that stiff competition had no effect on local contractors.

4.1.5 The use of cheap incompetent man power



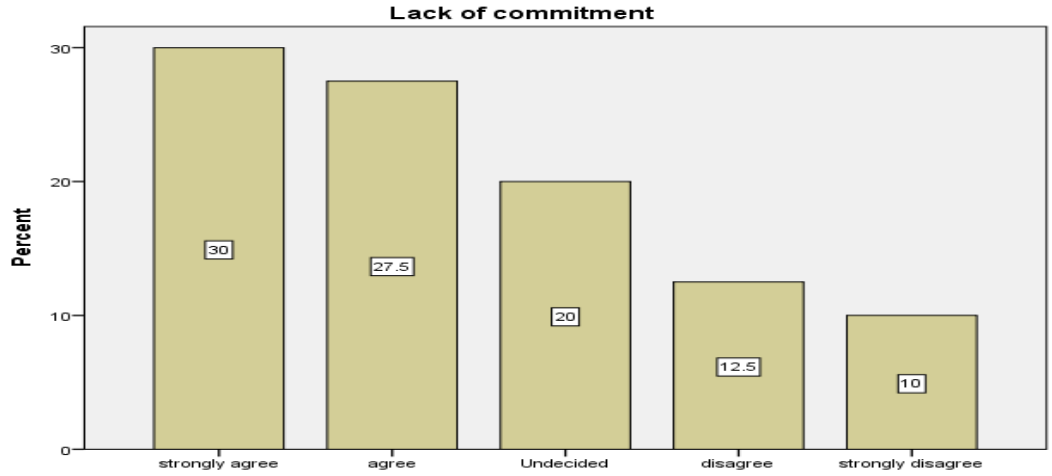
Out of the respondents contacted in the study, 40% observed that local contractors use cheap incompetent man power in the execution of the projects. 22.5% strongly agreed to the assertion that local contractors use cheap labour to reduce on the cost of production. 17.5% of the respondents were not sure whether local contractors use cheap incompetent man power or not. The respondents who disagreed and strongly disagreed with the above statement were 10% respectively.

4.1.6 They don't meet quality standards required by clients



37.5% of the respondents agreed with the statement which stated that local contractors do not meet quality standards required by the clients. 30% of the respondents strongly agreed with the above assertion while 12.5% were undecided. Both 10% of respondents disagree and strongly disagreed with assertion which said that local contractors do not meet quality standards required by the clients

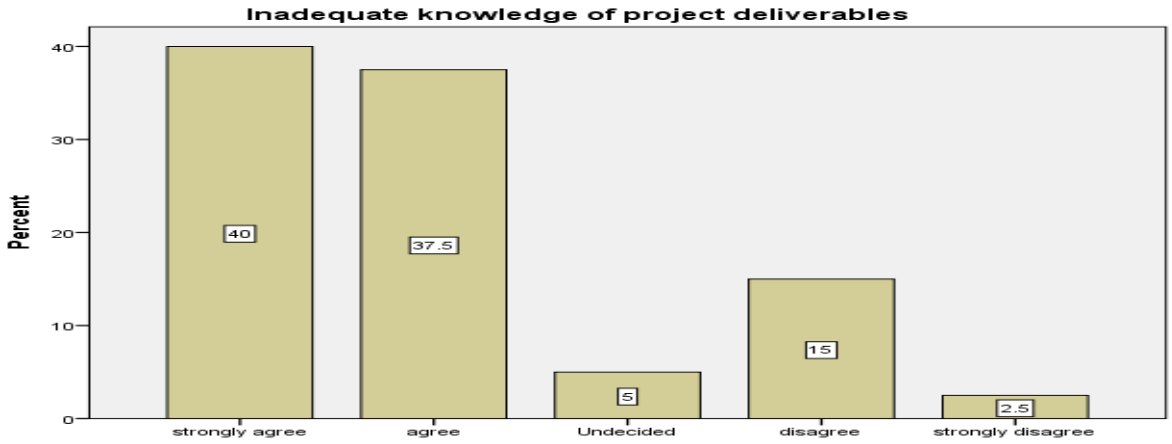
.4.1.7 Lack of commitment



30% of the respondents strongly agreed lack of commitment on the part of the local contractors contributed to the failure of completing projects on time. 27.5% agreed that local contractors lack commitment in their execution of the project while 20% of the respondents did not know whether lack of commitment on the part of local contractors has any bearing on the execution of a project.

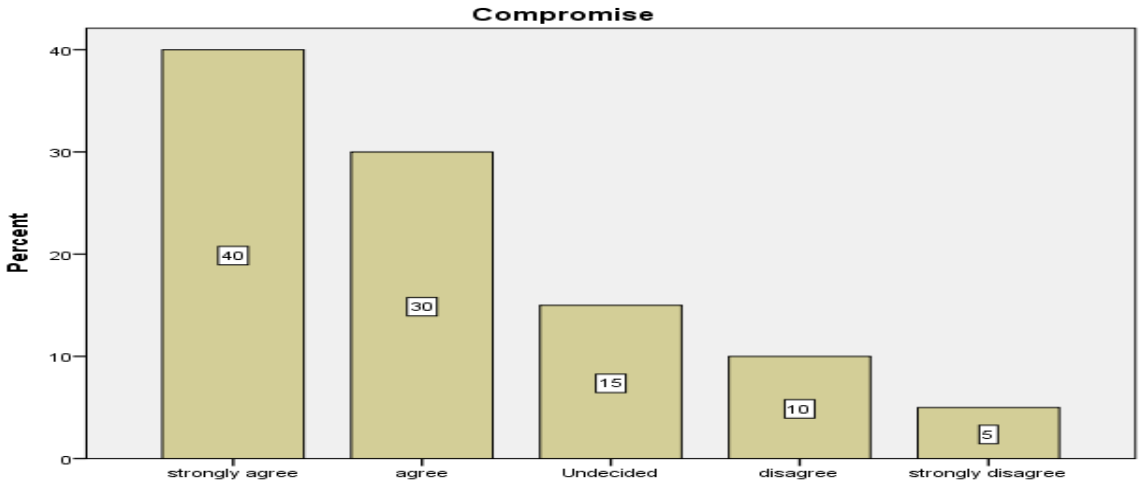
12.5% and 10% of the respondents felt that local contractor's lack of commitment a contributing factor to the delivery of the project.

4.1.8 Inadequate knowledge of project deliverables



40% of respondents strongly agreed and 37.5% of respondents agreed that local contractors' inadequate knowledge of project deliverables has led to project delays or project abandonment. Only 5% of the respondents were undecided whether local contractors had inadequate knowledge of project deliverables or not. Some respondents (15%) disagreed and other respondents (2.5%) strongly disagreed to the above statement.

4.1.9 Compromise of project specifications.

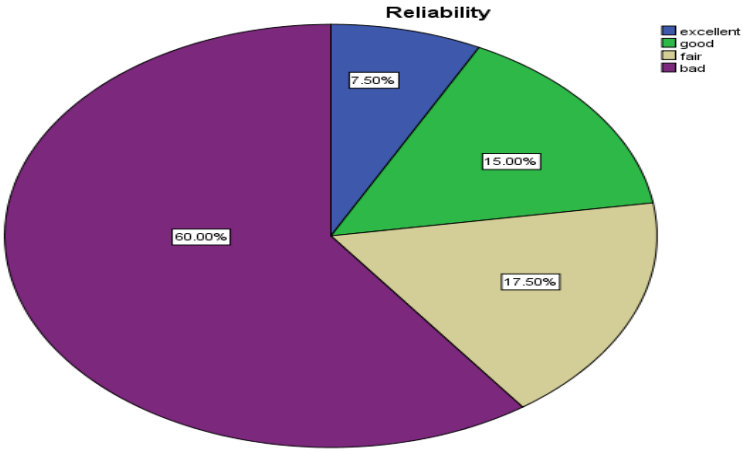


The majority of the respondents (40%) strongly agreed and 30% of the respondents agreed that local contractors compromise the specifications of projects. 15% of the respondents undecided

whether compromise of project specifications was a factor or not. 10% disagreed and 5% strongly disagreed with the above assertion.

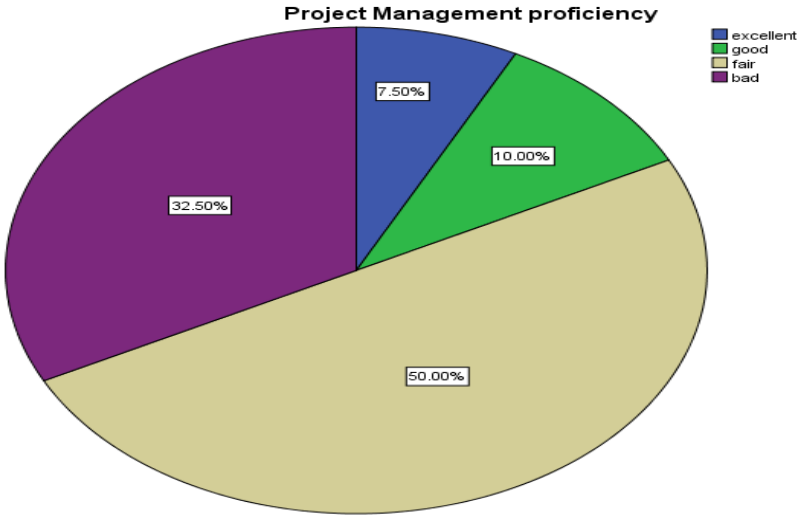
4. 2. Rating of Local Contractors

How do you rate the reliability of local contractors?



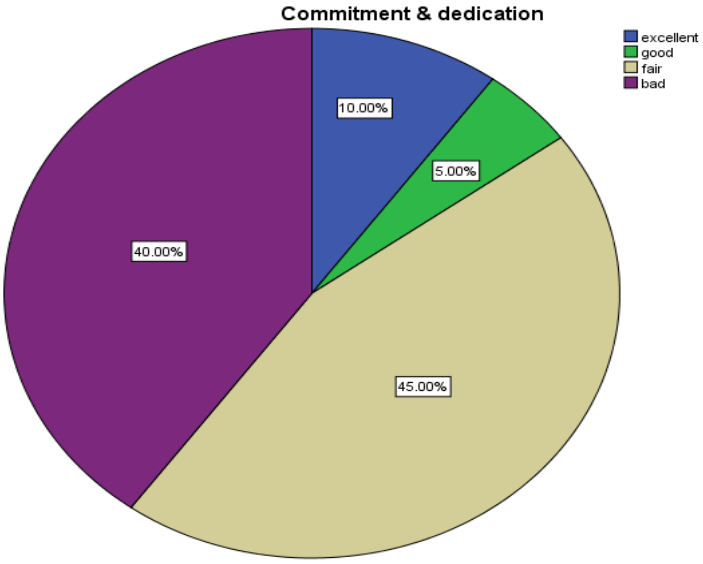
Majority of the respondents (60%) said that local contractors are not reliable. Some of the respondents (17.50%) rated local contractors as fairly reliable, 15% of the respondents rated them as good while 7.50% rated local contractors as excellently reliable.

4.2.1 How do you rate project management proficiency of local contractors?



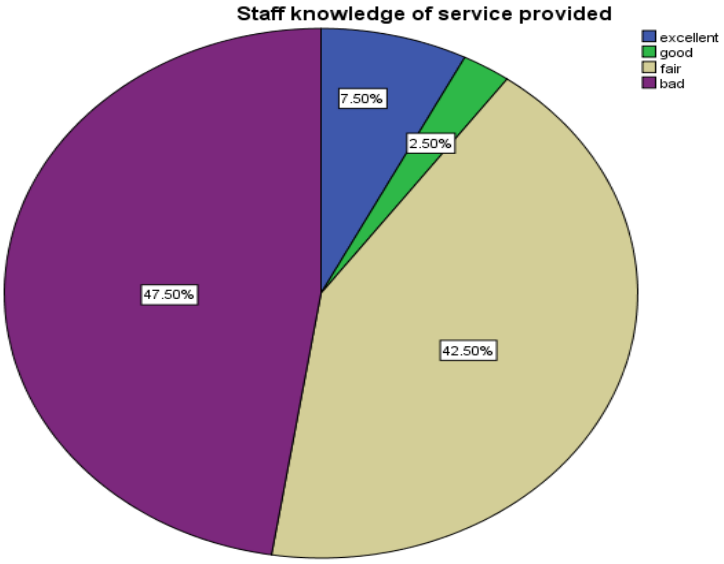
Respondents were asked to rate the project management proficiency of local contractors. 32.50% said that the project management proficiency of local contractors is bad, 50% of the respondents rated them as faire, 10% rated them as good and only 7.50% rated local contractors as excellent.

4.2.2 How do you rate the commitment and dedication of local contractors?



Respondents were asked to rate the local contractors' commitment and dedication to work. 40% rated them as bad, 45% ranked them as fair, 5% graded them as good while 10% of the respondents rated local contractors as excellent.

4.2.3 How do you rate the staff knowledge of service provided?



Respondents were asked to rate staff knowledge of service provided. 47.5% said that the staff of local contractors has bad knowledge of service they provide. 42.5% of the respondents ranked the

staff knowledge of service provided as fair, 2.5% said it is good while 7.5% regarded it as excellent.

4.3.0 What are the problems faced by local contractors in Zambia? (Information from Key informants)

4.3.1 Access to finance

One of the key informants stated that local contractors face a number of complicated challenges range of financial products and services, regulatory rigidities or gaps in the legal framework and lack of information on both the banks and the local contractors' side. Historically, the Zambian banking system was established on the basis of short-term lending mostly for trading transactions for a period of thirty (30) to ninety (90) days. The transaction was based on opening a letter of credit from bank to bank. Most banks had facilities such as short term loans, project financing, asset financing, overdrafts which did not adequately cover Small and Medium Local Contractors' long term financial requirements. Bank of Zambia supervision had taken strong measures against commercial banks by passing a Statutory Instrument No. 184 of 1995, the Banking and Financial Services (Capital Adequacy) Regulations. The Statutory Instrument stipulates that if a client of a bank does not liquidate a loan within three months, the bank should charge the loan against its own profit and loss account. The nature of construction business, especially that which depends on the Government as a client entailed that contractors were not ideal borrowers. Local contractors are seen to be high risk because their client, the Government, did not pay on time. It was, therefore, risky for banks to provide any form of credit when the borrower did not know when they would pay back.

'The solution to the financial problem faced by local contractors is the Government to facilitate a construction bank that will enable contractors to access loans at reduced interest rates' he added.

Another key informant said that local contractors were usually established under sole proprietorship or limited company status consisting of family members. The company formation structure tended to make banks apprehensive to local contractors and had an effect on confidence and risk levels. Local contractors should be encouraged to form partnerships of three (3) to eight

(8) companies and incorporate themselves as corporations. This would qualify them to access finance from capital markets. Furthermore, local contractors had limited knowledge on how to structure bankable credit proposals. It was essential that local contractors understood financial management. This would help them negotiate credit facilities with their bankers.

4.3.2 Collateral requirements

During the interview, an interviewee observed that financial institutions had collateral requirements that were difficult to meet in order for local contractors to secure credit facilities. However, a respondent said that there was potential in Zambia for local contractors to grow. What was required to unlock the potential was for the banks to soften their stringent collateral requirements so that finance was made available in a timely manner and at affordable rates. The respondent added that high interest rates that currently ranged between twenty (20) to thirty (30) percent were a major hindrance to the growth of local contractors.

4.3.3 Limited technical and managerial skills

One of the key informants observed that lack of management skills was difficult to deal with in most local contractors as the size and skill set of senior management was often limited. He said that:

'Three essential attributes were required by those working in construction: possession of practical experience so that they were familiar with the working and intricacies of the industry; familiarity with various tools and techniques for planning, scheduling and controlling construction operations and possession of personality and insight that enabled them to work harmoniously with others, often under very strenuous circumstances. The local contractors thus need to acquire an array of skills such as business and expertise as they were expected to deal with people at strategic, technical and operational levels".

4.3.4 Lack of access to plant and equipment

All key informants echoed that most local contractors consisted of small workforces and undertook small and simple projects due to limited access to plant and equipment. Therefore, local contractors

had a tendency to act as sub-contractors on medium to larger projects particularly road projects. Key informants observed that local contractors pursued labour-intensive projects that provide low value-adding services to clients, with little differentiation in product and service quality.

One director said the following:

"The Government should ensure that cooperatives schemes among local contractors especially small and medium contractors are encouraged so that it is easier for them to access equipment and other requirements".

4.3.5 Document preparation

One of the key informant narrated that local contractors had difficulties in preparing responsive bids. There was need to enhance the capacity of local contractors in preparing tender documents through continuous professional development.

4.3.6 Delayed payments

"One of the major problems local contractors are facing in Zambia is that the Government is not paying contractors on various infrastructure projects within the contractual period" said the respondent.

He added that according to the commonly used general conditions of contract under the International Federation of Consulting Engineers (FIDIC) red book, the employer was expected to pay the certified Interim Payment Certificates within twenty-eight (28) days. In addition, the Engineer was expected to certify the measured works within twenty-eight (28) days. This means that the contractor had fifty-six (56) days of maximum waiting period from the submission date of the Interim Payment Certificate to payment by employer.

He further said that "*contractors complain of delayed payment by employers, sometimes in excess of 6 months from the date of certification. As a result, contractors fail to meet their various contractual obligations and works had ended up costing much more than budgeted for due to claims and accrued interest*".

4.3.7 Procurement method

A key informant mentioned that many Zambian owned and registered architectural firms were small to medium size but well qualified and competent. However, their participation was limited to small private projects and excluded from medium to large Government projects because of the procurement methods used by the Government. For instance, in design and build, the design process happened side by side with the construction process. Apart from the fact that Zambia did not have the appropriate legal framework for this method, the manner in which it is being applied prevents the participation of many local architects. The design and build tenders are being administered in a manner which require complete designs with all construction drawings and bills of quantities. Apart from the wrong application of the method, the demand for a complete set of drawings is expense that most local firms could not afford and as such most local architects could not participate and the work ended up in the hands of foreign architectural firms.

In order to solve this problem the respondent suggested that:

"the Government should enforce the Zambia Institute of Architects Act Chapter 442 of the Laws of Zambia in order to compel foreign companies investing in Zambia to ensure that only local architects are engaged in the designing of buildings particularly Government buildings".

4.3.8 Perceptions of lack of capacity

One key informant stressed that there are perceptions of inadequate capacity among the Zambian architects and as such even the most basic of projects had been floated to foreign companies. He said most of the contractors who fall on grade 1 to 3 of the National Council for Construction (NCZ) are foreign contractors whilst most the local contractor fall in grade 6B or 6R. This denies Zambian companies opportunity to participate. Apart from South Africa, Zambia was the first country in Southern African Development Community (SADC) to establish a school of architecture whose graduates are found around the SADC region and other countries. Zambian architectural firms are capable of working on any large scale and complex project. Another director said the following:

"The twenty (20) per cent mandatory sub-contracting to local contractors in the road sector should be adopted for all construction activities and the threshold should be increased with a view to enhancing the participation of local contractors. In addition, there is need for the Government to make the twenty (20) per cent sub-contracting to local contractors' policy into law so that all principal contractors are bound by law to implement the policy. The law should make it mandatory that the scope of works to be subcontracted is specified in the bidding document and the selection process of a sub-contractor should be transparent and supervised by the client or their agent and not left to the main contractor".

Another director said that there is need for the Government to introduce a contractor rating system which should be in the custody of the National Council for Construction (NCC) for all the sub sectors in the construction industry that would rate local contractors according to their possible performances. This would enable contracting agencies to identify low risk contractors for possible contract award thereby minimising the perception that local contractors are "poor performers."

4.3.9 Government Policy

One of the key informant said it was in the government's tireless effort to enhance local entrepreneurship by promoting local contractors through construction projects hence the formation National Council for Construction which was formed as an act of parliament Act No. 13 of 2003 to provide for the promotion and development of the construction industry in Zambia; to provide for the registration of contractors; to provide for the affiliation to the Council of professional bodies or organizations whose members are engaged in activities related to the construction industry; to provide for the regulation of the construction industry; to provide for the establishment of the Construction School and to provide for the training of persons engaged in construction or in activities related to construction. He further said the changes in payment policy were affecting the local contractor too. Currently contractors' installment payment is divided in three phases, they are paid 25% at phase one, then 50% at phase 2 and lastly another 25%. It was up to contractors to manage those payments.

The foreign contractors have their own capital to start and sustain the projects and could not worry whenever payments were delayed.

Respondents were asked to rate the impact of NCC in the improvement of project proficiency of local contractors.72% rated NCC's improvement of project proficiency of local contractors as bad, 16% of the respondents rated them as faire, 10% rated them as good and only 2% rated local contractors as excellent.

CHAPTER FIVE DISCUSSION OF FINDINGS

5.1 Problems faced by local contractors in Lusaka district.

The study found that local contractors are seen to be high risk because their major client, the Government, do not pay on time. It is, therefore, risky for banks to provide any form of credit when the borrower did not know when they would pay back. This goes in line with Adams (1997) who identified access to finance as one of the major constraints indigenous contractors face in Nigeria.

Another factor identified in the study that contributed to the delay in project completion was that local contractors had limited knowledge on how to structure bankable credit proposals. The finding matches with Thwala and Mvubu (2008) who said that lack of skills to properly program projects resources in monthly segments for healthy cash flow and inability to prepare documents for timely payment are some of the problems faced by local contractors in developing countries.

It was revealed in the study that local contractors had difficulties in preparing responsive bids. Hence, there is need to enhance the capacity of local contractors in preparing tender documents through continuous professional development. This finding came closer to Kululanga (2012) who explained that training (to teach writing and reading skills, financial management and business management skills), business management skills (to ensure sustainable business enterprises), financial management (to manage cash flow, among other things) were areas identified to be amongst constraints and challenges faced by local contractors in Sub-sahara countries.

Some of the problems identified in the research are that most local contractors consisted of small workforces and undertook small and simple projects due to limited access to plant and equipment. This findings are supported by Matipa and Zulu (2000) who explained that technological uptake on Zambian projects has been slow despite the documented benefits of this resource. Kashweka (2001) argued that industry operations have largely remained traditional, with low technology applications used to run construction business.

The researcher found that the government is the major client of local contractors. The research also revealed that Government was not paying contractors on various infrastructure projects within the contractual period. This has contributed heavily to the delay or abandonment of projects executed by local contractors. This proves the assertions made by scholars such as Fugar and Agyakwah-Baah (2010) in literature review

The study discovered that there are perceptions of inadequate capacity among the Zambian local contractors and as such even the most basic of projects had been floated to foreign companies. The finding agrees with Mashamba (2001) who noted that international players have entered the Zambian construction market and is a serious threat to the local contractors. According to Shachinda (2002) the number of international firms winning multimillion projects especially donor funded as well as projects attracting international financial investment, is on the increase. Suddenly, local contractors require an international credibility beyond the profile and reputation that they enjoy in Zambia. They need to adapt to meet the requirements of clients from different cultures and with disparate values.

5.2 Solutions to the problems faced by local contractors in Lusaka district.

5.2.1 Lack of Access to finance

The solution to the financial problem faced by local contractors is the Government to facilitate a construction bank that will enable contractors to access loans at reduced interest rates. The government which is the major client of most of the local contractors must pay the contractors according to the contractual obligations.

5.2.2 Limited technical and managerial skills

Local contractors should possess practical experience so that they are familiar with the working and intricacies of the industry. They must be familiar with various tools and techniques for planning, scheduling and controlling construction operations and possession of personality and insight that enabled them to work harmoniously with others, often under very strenuous circumstances. The local contractors need to acquire an array of skills such as business and expertise as they were expected to deal with people at strategic, technical and operational levels.

The following organisations Road Development Agency, Association of Building and Civil Engineering Contractors, Zambia Development Agency, Engineering Institution of Zambia, National Association for Medium and Small Scale Contractors and National Council for Construction should design capacity building programmes to help local contractors.

5.2.3 Lack of access to plant and equipment

The Government should ensure that cooperatives schemes among local contractors especially small and medium contractors are encouraged so that it is easier for them to access equipment and other requirements.

5.2.4 Perceptions of lack of capacity

There is need for the Government to introduce a contractor rating system which should be in the custody of the National Council for Construction (NCC) for all the sub sectors in the construction industry that would rate local contractors according to their possible performances. This would enable contracting agencies to identify low risk contractors for possible contract award thereby minimising the perception that local contractors are "poor performers.

The twenty (20) per cent mandatory sub-contracting to local contractors in the road sector should be adopted for all construction activities and the threshold should be increased with a view to enhancing the participation of local contractors. In addition, there is need for the Government to make the twenty (20) per cent sub-contracting to local contractors' policy into law so that all principal contractors are bound by law to implement the policy. The law should make it mandatory that the scope of works to be subcontracted is specified in the bidding document and the selection process of a sub-contractor should be transparent and supervised by the client or their agent and not left to the main contractor.

The Government should enforce the Zambia Institute of Architects Act Chapter 442 of the Laws of Zambia in order to compel foreign companies investing in Zambia to ensure that only local architects are engaged in the designing of buildings particularly Government buildings.

5.3 The role of the Zambian government in promoting local contractors in Lusaka district.

The researcher came to find that it is the role of the government to make the business environment conducive for local contractors. The government should amend the National Council for Construction Act No. 13 of 2003 so that the National Council for Construction can also regulate and punish all the erring contractors that undertake works in the private sector. The Government should urge the National Council for Construction to enhance its research in relation to the construction sector. The government should to ensure that the Citizens' Economic Empowerment Act No. 9 of 2006 and the Zambia Public Procurement Act No. 12 of 2008 are harmonised so as to facilitate consistency in the definitions of 'citizen' companies provided in the Acts. It is also the Government's role to facilitate a construction bank that will enable contractors to access loans at reduced interest rates.

It was observed that it is also the Government's role to encourage mentorship programmes in order to facilitate skills transfer to local contractors by foreign contractors. The Government has the responsibility to ensure that cooperatives schemes among contractors are encouraged so that it is easier for them to access equipment and other requirements.

CHAPTER SIX CONLUSION AND RECOMMENDATIONS

6.1 Conclusion

The following are the factors identified in the research which contribute to completion delay or abandonment of the projects: local contractors' attitude of misappropriation of funds by diverting them to personal needs such as buying luxury expensive cars, mansions and different business deals, excessive beer drinking and leisure. Other factors include incomplete projects design, drawing and bill of quantity variations, stiff completion, nepotism, political and economic issues, the use of inexperienced, cheap labour and incompetent project management personnel. The lack of the following: access to finance, commitment, reliability, professional development facilities, adequate equipment, technological advancement, and employee motivation as well as late payments of completed work by the client, exorbitant interest rates from financial institutions, bidding for projects beyond contractor technical or financial capacity predominantly inhibit enhancement of key project performance indicators resulting into the project delay and abandonment.

6.2 Recommendations

1. The government should make the business environment conducive for local contractors.
2. The parliament should amend the National Council for Construction Act No. 13 of 2003 s o that the National Council for Construction can also regulate and punish all the erring co ntractors that undertake works in the private sector.
3. The stakeholders should provide cooperative schemes for the local contractors to access l oans, equipment and raw materials.
4. Consider high quality standard, excellent performance, time and financial management as prestigious strategies for competing effectively other than depending on lower pricing ten dering system.
5. Local contractors should change attitude by beginning to prioritize the contracts awarded t o them first, before considering personal needs in order to be sustainable in business.
6. The National Council for Construction to carry out a research to identify possible ways su ch as training the contractors with project management skills, develop quality managemen t system and control.
7. The Government should facilitate a construction bank that will enable contractors to acces

s loans at reduced interest rates.

8. The National Council for Construction should encourage mentorship programmes in orde r to facilitate skills transfer to local contractors.

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APPENDIX I

1. **QUESTIONNAIRES**

Dear Respondent,

I am conducting a research entitled **"The factors affecting performance among local contractors in Zambia: A case of Lusaka District."** This questionnaire is the instrument of data collection for the required information.

Kindly be assured that the information you will provide will be treated with the strictest confidence and will be solely for academic purposes.

Thank you

THE FACTORS AFFECTING PERFORMANCE AMONG LOCAL CONTRACTORS RESEARCH QUESTIONNAIRE:

Instruction: Please fill in the blank spaces provided or tick were necessary.

1. Region …….....……
2. Department/Section …….……..

3. How long have you been working with the company?

Under 1 year	☐
1 - 5 years	☐
6 - 10 years	☐
10 + years	☐

4. What do you understand by "Project Management"? Please describe in one line:

   ……

5. Why is project management proficiency important for an organization?

   .....
   .....

6. What do you think are the benefits of project management to any given project? Choose one.

   Correct estimation ☐

Efficiency & Effectiveness	☐
Productivity & Profitability	☐
Meeting project goals & objectives	☐
Managing financial, material and labour resources	☐
Completing projects on time	☐
All the above	☐
None of the above	☐

Other……

7. Have there been projects that were abandoned before completion in the past three years?

Yes ☐
No ☐

8. If the answer to question seven above is yes, what was the reasons for abandoning?

Occurrence and impact of late and over-budget milestones	☐
Exceeded deadline	☐
Poor quality	☐
The project did not recover a measurable return on investment for the company and the client	☐
Lack of top management support	☐
Didn't have metrics to measure project outcomes	☐
Unclear project tasks and objectives	☐
Lack of communication between management and the project manager	☐
Interferences from management team	☐
Lack of coordination between client and project team	☐

9. Do you feel that the company values project management skill?

Yes ☐

No ☐

10. Do you think that management is creative in implementing quality and risk management effectively?

Yes ☐
No ☐

11. Does your project manager encourage open, honest two way communication?

Yes ☐
No ☐

12. Do you have a clear vision of the future direction of the company?

Yes ☐
No ☐

13. Rate your level of satisfaction with the working culture of the organization?

Highly satisfied ☐
Satisfied ☐
Average ☐
Dissatisfied ☐

14. Rate your level of satisfaction with the successful project planning, budgeting and implement ation.

Highly satisfied ☐
Satisfied ☐
Average ☐
Dissatisfied ☐

15. Does the company provide opportunities to further develop employees, both professionally an d personally in managing projects?

Yes ☐
No ☐

16. Do you feel well compensated for your services?

Yes ☐
No ☐

17. What are the things that you think need improvement in your workplace?

People and work environment ☐
Engage qualified project managers ☐
Provision of adequate resources ☐
Financial management ☐
Training and learning opportunities ☐

Employee motivation ☐
Other……

Please indicate your degree of agreement with the following statement:

18. **"Project Management expertise has an impact on service quality and successful implem entation of projects".**

Strongly agree ☐
Agree ☐
Strongly disagree ☐
Disagree ☐
Do not know ☐

-Thank you for your time-

APPENDIX II

QUESTIONNAIRE FOR THE CLIENTS

Dear Respondent,

I am conducting a research entitled **"The factors affecting performance among local contractors: A case of Lusaka district."** This questionnaire is the instrument of data collection for the required information.

Kindly be assured that the information you will provide will be treated with the strictest confidence and will be solely for academic purposes.

Thank you

THE FACTORA AFFECTING PERFORMANCE AMONG LOCAL CONTRACTORS

QUESTIONNAIRE:

Instruction: Please fill in the blank spaces provided or tick were necessary.

1. Organization/Individual……...

2. Overall how satisfied are you with the service provided by Zambian Contractors.

Very satisfied	☐
Satisfied	☐
Not satisfied	☐

3. Have you come across any project which has been either abandoned or cancelled by the client for failure to meet the requirement or laid down procedures by local contractor(s)?

Once	☐
Most of the time	☐
Many times	☐
Never	☐

What are the major reasons?.....……
…….

4. In what ways would you want Zambian contractors to serve Government projects better?..……
   ……...
   ……..
5. How would you describe the professionalism of the service provided by Zambian contractors in implementing the project?

Requires improvement	☐
Satisfactory	☐
Very satisfactory	☐

6. As a Client what do you feel are the **major reasons why many Zambian contractors aband on the projects before completion**?

Financial Mismanagement	☐
They underestimate their quotations	☐
Impact of late and over-budget milestones	☐
Stiff competition	☐
The use of cheap incompetent man power	☐
They don't meet quality standards required by clients	☐
Lack of commitment	☐
Inadequate knowledge of project deliverables	☐
Compromise	☐

Other…….

7. Which comment below best describes the efficiency of service provision by Zambian contrac tors when implementing the projects?

Efficient	☐
Fair	☐
Inefficient	☐

8. If you had to use one word or sentence to describe the service provide by one of the Zambian local contractors, what would it be?

…….....
.....

9. How would you **rate Zambian local contractors staff** in relation with the following;

Reliability	Excellent ☐	Good ☐	Fair ☐
Project Management proficiency	Excellent ☐	Good ☐	Fair ☐
Commitment & dedication	Excellent ☐	Good ☐	Fair ☐
Staff knowledge of service provided	Excellent ☐	Good ☐	Fair ☐

-Thank you for your time-

APPENDIX III
INTERVIEW SCHEDULE FOR DIRECTORS

I am conducting a research entitled **"The factors affecting performance among local contractors in Zambia: A case of Lusaka District."** This interview is the instrument of data collection for the required information.

Kindly be assured that the information you will provide will be treated with the strictest confidence and will be solely for academic purposes.

Organisation ……

Position……

1. What do you think are the benefits of the following to a project?
   a. Correct estimation
   b. Efficiency & Effectiveness
   c. Productivity & Profitability
   d. Meeting project goals & objectives
   e. Managing financial, material and labour resources
   f. Completing projects on time
2. What do you think are the major problems facing local contractors?
3. What do you think are the possible solutions to the problems stated in question three?
4. What do you think government has some role to play in helping local contractors? (specify the roles)

Thank you for your cooperation.