

**MASTER'S PROGRAMME IN URBAN MANAGEMENT
AND DEVELOPMENT**

(October 2004 – September 2005)

**EMERGING CONTRACTOR'S IN THE LOW COST HOUSING
DELIVERY SYSTEM. CITY OF JOHANNESBURG
MUNICIPALITY HOUSING DEPARTMENT, SOUTH AFRICA.**

**Zakithi Mbonane
South Africa**

Supervisor: Annette Wong. Jere

**UMD 1 -61
Lund, 12th September, 2005**

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	I
EXECUTIVE SUMMARY	II
CHAPTER ONE	1
INTRODUCTION AND RESEARCH METHODOLOGY	1
1.1 Introduction	1
2.1 Research Problem/ Problem Statement	2
1.3 Research Question.....	4
1.4 Subsidiary Questions.....	4
1.5 Aims and Objectives of the Research.....	4
1.6 Definitions and Abbreviations	5
1.7 Chapter Outline	6
CHAPTER TWO CONCEPTUAL FRAMEWORK	7
2.1. Construction Industry in Developing countries	7
2.1.1 Introduction	7
2.1.2 Dependence on International Construction Firms.....	7
2.1.3 Access to Finance.....	8
2.1.4 Quality of the Construction Sector Products.....	9
2.1.5 Vocational Training Schemes and Apprenticeship	10
2.1.6 Information and Research on Contracting Business	11
2.1.7 Donor Agencies Contribution in the Construction Sector.....	11
2.1.8 Government Policies and Actions	12
2.2 CONSTRUCTION INDUSTRY IN SOUTH AFRICA	13
2.2.1 Historical Background.....	13
2.3 CHALLENGES OF EMERGING CONTRACTORS IN SOUTH AFRICA.....	14
2.3.1 Financing Construction Works.....	14
2.3.2 Delayed Payments to Emerging Contractors.....	15
2.3.3 Sustainability of the Work Flow	16
2.3.4 Effects of Procurement Practices to Emerging Contractors	16
2.3.5 Performance of Consultants in Development Projects.....	17
2.3.6 The Role of Public Sector Employees in Development Projects	18
2.3.7 Training and Mentorship of Emerging Contractors	19
2.3.8 Health and Safety in Construction Works.....	20
2.4 CONSTRUCTION INDUSTRY DEVELOPMENT BOARD	20
2.4.1 The Establishment of the Construction Industry Development Board.....	20
2.4.2 Interventions by Construction Industry Development Board.....	21
2.4.2.1 Construction Registers Service.....	21
2.4.2.2 Code of Conduct.....	22
.5 Expanded Public Works Programme (EPWP).....	22
2.5.1 Effects of the Expanded Public Works Programme	22
2.6 Conclusion	23
Chapter Three Research Methodology and Data Collection.....	24
3.1 Introduction.....	24

3.2 Research Method	24
3.3 Data Collection	24
3.3.1 Primary and Secondary Sources.....	24
3.4 Respondents to the Research	24
3.4.1 Emerging Contractors	24
3.4.2 Supervising Engineers.....	25
3.4.3 Johannesburg Housing Officials	25
3.4.4 Johannesburg Procurement Official	26
3.4.5 Department of Public Works Officials.....	26
3.4.6 Construction Industry Development Board Official	26
3.4.7 Financial Consultants from Financial Institutions.....	26
Chapter Four Research Findings	27
Introduction.....	27
4.2 The City of Johannesburg	27
4.3 Functions of the Department of Housing.....	27
4.4 Discussion of Research Findings	28
4.4.1 Educational and Career Background of Emerging Contractors	28
4.4.2 Finance and Cash Flow Management	29
4.4.3 Project Delays in Housing Projects.....	30
4.4.4 Employment Sustainability	31
4.4.5 Payments to Emerging Contractors.....	32
4.4.6 Training and Skills Development.....	32
4.4.7 Health and Safety in Housing Projects.....	33
4.4.8 Information Dissemination.....	34
4.4.9 Expanded Public Works Programme	35
4.4.10 Construction Supervisors and Housing Officials	35
4.5.1 Conclusion	36
Chapter 5 Conclusions and Recommendations.....	37
5.1 Introduction.....	37
5.2 Delays in Housing Projects.....	37
5.3 Obstacles in Engaging Emerging Contractors	38
5.4 Benefits or Potential of Engaging Emerging Contractors.....	38
5.5 Mechanisms to Assist Emerging Contractors	39
5.6 Recommendations.....	39
5.7 Limitations of the Research	40
5.8 Future Research	40
Bibliography	41
APPENDIXES.....	44
LIST OF RESPONDENTS	44

ACKNOWLEDGEMENTS

First and Foremost, I thank God for guiding me through the difficult and trying times, during the Masters Course and in the writing of this thesis

This thesis would not have been a success without the support of the following people;

My supervisor, Annette Wong –Jere, your support and advice is appreciated!

Emerging Contractors, Construction Supervisors and Housing Officials, for participating in the research.

Swedish International Development Agency, for financial support.

Jerome Dube, for support and believing in me!

My daughter, Zanda, for all the sacrifice and special moments we should have shared.

My family, especially my Mom and late Dad, for believing in my dreams!

My Colleagues and Friends in Lund and Erasmus, your support and encouragement did the trick!

EXECUTIVE SUMMARY

The promotion of small businesses owned by previously disadvantaged people, that is, Africans, Indians and Coloureds in South Africa, is a central theme for the government. The promotion of small businesses is generally a government economic strategy to reduce poverty, create employment opportunities and promote economic growth. Legislations, such as, the Preferential Procurement Framework Act is geared to promote the participation of small companies in government and private sector contracts. South African Government, therefore, assumes the role of a client (through different government departments and bodies) to small businesses, because the government is involved in a number of infrastructure and housing development activities.

A house is considered a basic need according to the South African Constitution. It is therefore, a government responsibility to provide housing to poor people who are excluded from housing provided by the market. Housing subsidies are provided for the development of low cost housing projects. The funds to develop low cost housing are transferred by the Central Government to Provincial Governments. Provincial Governments allocate housing subsidies to all Local Governments in their jurisdiction. Local Governments are therefore, responsible for the practical execution of low cost housing projects. Housing Programmes vary according to need. Programmes are generally, residential infrastructure installation and building of house structure, upgrading of informal settlements, through installation of basic services and top structure, building of additional low cost flats and upgrading of existing ones. The Housing Department of the City of Johannesburg implements all the housing programmes mentioned above.

The implementation of housing programmes requires highly skilled and technical personnel within the housing department. Because of the absence of technical personnel within the housing department, the department hires Consultants from different Engineering Companies to supervise and manage housing projects. As part of adherence to the Preferential Procurement Act, the housing department appoint, through the tender system, Emerging Contractors for the construction of housing programmes. In order to enable the participation of small companies, housing contracts are, in many instances, unbundled. Small Companies that are involved in the construction business are called Emerging Contractors in South Africa. The term arose from the fact that a majority of these companies were formed during the post apartheid era. In other countries, these companies are referred to as local contractors.

The appointment of Emerging Contractors in Housing programmes indicate coordination and balance between Economic and Housing Policies. Economic Policy strategy is geared towards promoting local economic development and employment opportunities. Yet Housing Policy wants to eradicate poverty through housing provision. Implementation of both Economic and Housing Policies is intertwined in Emerging Contractor development. The net effect is that small business, grow and the economy develops. On the angle of consumers, quality services and houses are provided at least cost. In theoretical terms, this scenario works perfectly. However, the realities in South African Construction sector are that limitations such as, access to finance, inability to raise working capital, lack of technical skills and experience in executing housing programmes, inability to manage project cash flow, reliance on project payments renders Emerging Contractors participation a challenge and a major contribution to project delays. The interaction of Emerging Contractors, low skilled housing officials and highly trained Consultants resulting to low cost housing delivery is explored in this study.

CHAPTER ONE

INTRODUCTION AND RESEARCH METHODOLOGY

1.1 Introduction

Developing countries are experiencing rapid population growth in urban areas. This growth is coupled with increased demand for basic services such as water and sanitation, electricity, roads, and housing. Many countries, in developing economies, are not able to cope with the pace of the service demands. There are many reasons for government inability to deliver services. The migration of people in large numbers to urban areas increase demands for services. The population growth of inhabitants, who are already settled in urban areas, is also a contributory factor to increasing service demands. On the supply side, the construction industry in many developing countries is not well developed hence its capacity and resources are insufficient to respond to the service demands (Nordberg 2005, p.1). Stakeholders in the construction industry are Consultants and Contractors who are small in size, have limited capital, equipment and human resources to execute highly technological construction projects. They generate insufficient working capital from small contracts which are not profitable (Ofori G, 2000 p.3, Zwadie and Langford 2000, p.7, Palalani K, 2000, p.6, Materu S, 2000 p.1, Murray and Appiah-Baiden 2002, p.1, Nordberg 2005, p.1, Datta M, 2000, p. 2). On the other hand, governments play a major role in the provision of services hence the construction sector depends on their contribution.

Challenges faced by governments, such as lack of capacity to plan and design projects, due to absence of highly skilled and technical personnel within the public sector, affect the development of the construction sector (Palalani K, 2000, p.5, CIDB 2004, pp.18-19, Meyer-Stamer 2003, p.14). Government's inability to prepare medium and long term infrastructure and housing plans and lack of commitment to execute these plans disorganize construction stakeholders. Firstly, financial planning provide information about the cost of activities and this eventually leads to informed decisions on allocation and spending of resources and enable government officials to prioritise and attend to immediate problems (Pautz, Watermeyer and Jacquet, 2002, p. 5). However, in many developing countries, planning is not given attention it deserves. Construction industry stakeholders are unable to invest already acquired resources because government delivery programmes are not transparent, and in most cases, are uncoordinated and poorly planned. Secondly, inefficiencies in planning lead to under spending of budgets and implementation delays. Development projects are not delivered quickly and on time because payments to Consultants and Contractors are delayed (CIDB 2004, pp.18-19, Gasa, Barnes, Ngqaleni and Hodgson, 2002, p. 2). In contrast, delays are caused by inappropriate technology and design, lengthy tendering and contractual procedures and inefficient on-site supervision (Nordberg, 2005, p.1, Palalani K, 2000, p.5).

In South Africa, there is a huge backlog in terms of service and housing provision especially, low cost housing. The housing challenges include, housing shortage, mushrooming of informal settlements, overcrowding in the townships and flats. Overcrowding negatively affect the quality of basic services. Overcrowded areas experience problems of water or sewer pipe bursts because the volume of people utilizing the service, far exceed the infrastructure's carrying capacity. Since provision of housing is a basic need according to the South African Constitution, it is the government responsibility to provide housing, especially to poor South Africans who are excluded from the unaffordable housing provided by the private sector. The City of Johannesburg, Housing Department function therefore, is to provide affordable housing to the poor citizens of the Johannesburg City. Housing programmes respond to different housing needs. In informal settlements, services such as water, sewer, and toilets are provided. In completion of service installation, houses (top structure or starter houses) are built for households. Other housing programmes involve construction of rental flats, rehabilitation and repairing and renovation of old flats, upgrading of hostels, that is, renovating single units to family apartments). Other projects are called Greenfield's because they are undertaken on the vacant land, from service installation to completed starter house. Housing provision in Johannesburg, therefore, include both the installation of bulk and residential services and house construction.

The execution of different housing programmes mentioned above, requires participation of the construction industry. The Housing Department hires Consultants to monitor and supervise the implementation of housing programmes. Like other government departments, Housing Department, appoint Emerging Contractors, as part of adherence to Preferential Procurement Framework Act. Engaging Emerging Contractors in the implementation of housing project has created many problems in delivery. Problems, such as finishing projects on time are part of the obstacles that this research aims to unpack. A closer look at South African local Contractor and Consultants development potential are core issues of this study. The delays and poor quality products and services in the construction sector are challenges that this study aims to unpack. Special attention is given to Contractors engaged in the implementation of low cost housing development projects administered and managed by the City of Johannesburg Housing Department in South Africa.

2.1 Research Problem/ Problem Statement

Developing countries are experiencing rapid population growth in urban areas. This growth is coupled with increased demand for basic services such as water and sanitation, electricity, roads, and housing. Many countries in the developing economies are not able to cope with the pace of the service demands. According to Nordberg, the situation is worsened by the fact that local contracting industry is not sufficiently developed. Local contractors operate only small residential projects while the larger industrial and commercial projects are awarded to foreign based construction firms (Nordberg 2005, p.1, Palalani K, 2000, p 6, Zwadie G and Langford D A 2000, p.7, Materu S, 2000 p.1).

There are a many reasons for the poor development of local contracting in developing countries. Firstly, due to their small size, local Contractors are not able to raise sufficient working capital. As a result, they are not able to attract or acquire larger industrial and commercial projects. Secondly, they are not in a position to take care of insurance, bonds or secure sufficient materials credit to finance projects when payment by client is delayed (Nordberg 2005, p.1, Ofori G, 2000 p.3, Materu S, 2000, p.4 & 5). This is problematic in the sense that, lack of resources leads to project delays, sometimes failure or insolvency. Thirdly, Local Contractors may be experienced in the execution of the construction works, but they lack financial management skills which can enable them to execute construction works efficiently and on time (Ssegawa J K, 2000, p. 5, Meyer-Stamer 2003, pp. 7-8).

Another challenge in local contracting is the fact that governments lack capacity to plan and design projects (Nordberg 2005, p.1). Poor planning lead to higher construction costs. In other cases, poor estimates, inappropriate technology and design, inappropriate tendering and contractual procedures, inefficient on-site supervision and construction management are additional financial constraints to small construction companies (Nordberg, 2005, p.1, Datta M, 2000, p.2, Materu S, 2000 p.8). Other performance difficulties are linked to the inability to obtain building materials on time.

In South Africa, the development and empowerment of the Black owned businesses is a central theme of the Government. In all government sectors including Housing, preferential procurement policies are implemented to attract and promote Small Construction Companies. These companies are called Emerging Contractors. Emerging Contractors are small businesses mainly owned by non-whites who were marginalized and excluded from participation in higher spheres of the building industry during the apartheid era (Murray and Appiah-Baiden 2002, p.5). Most of these companies were formed during the post 1994 period. In the Housing Department, Emerging Contractors are engaged in various housing development projects, such as, installation of services, repair and maintenance and renovation of social housing stock and construction of low cost housing. On one hand, housing shortage, mushrooming informal settlements and overcrowding in Johannesburg, like in many cities in South Africa, put pressure on the implementation of low cost housing. As a result, the Housing Department is under pressure to deliver quickly. On the other hand, Housing Officials and Consultants are expected to implement preferential procurement practices and hire Emerging Contractors to deliver housing projects at desirable speed. Hiring of Emerging Contractors has brought dissatisfaction to both Officials and Consultants, who want to fulfill the Department of Housing goals and objectives of delivering projects quickly and on time. Poor service delivery by Emerging Contractors is caused by lack of financial and human resources in these firms. In many instances, Emerging Contractors do not start work on time because they waste time in acquiring surety and insurance (CIDB Best Practice Guide 2004, p.8). Financial mismanagement by Emerging Contractors is another problem that leads to failure to accomplish tasks on time (Ssegawa J K, 2000, p.5). In some cases, mismanagement of funds in these companies leads to insolvency or liquidation.

Government policies in South Africa support and promote Emerging Contractor businesses. However, there is a conflict between implementing procurement policies and delivering development projects quickly or at desirable speed. Access to finance, irregular work flow, delayed payments, training and mentorship hampers the development of Emerging Contractors, even when the policy environment support and promote their growth. The obstacles and challenges faced by Emerging Contractors in the development of housing projects are tackled in this study.

1.3 Research Question

Does the involvement of Emerging Contractors in the implementation of low cost housing projects cause problems of delivery?

1.4 Subsidiary Questions

- What cause delays in the implementation of housing projects?
- What are the obstacles of engaging Emerging Contractors in the construction of low cost housing?
- What are the benefits in engaging Emerging Contractors in low cost housing construction?
- What challenges are experienced by Housing Officials, Supervising Engineers and Communities in housing projects implemented by Emerging Contractors?
- What mechanisms are in place to assist Emerging Contractors in performing their tasks?
- Do partnerships exist between Emerging Contractors and the well established Contractors?

1.5 Aims and Objectives of the Research

The primary aim of the research is;

- To understand the cause of delays in the implementation of low cost housing projects, from the construction perspective.
- To discuss challenges in delivery from different stakeholders perspective. The feedback from the stakeholder's recommendations can be used by the Housing Department of the City of Johannesburg to improve the current low pace in the delivery of housing.

The secondary aim of the study is;

- To analyse the Expanded Public Works Programme and to understand how it is being implemented in Housing Projects.

1.6 Definitions and Abbreviations

Contractor: An organization that constructs a building, a structure or services for a client, for payment.

Emerging Contractor: Small Contracting Companies, mainly non-whites, who were marginalized during the apartheid era and excluded in the building industry, working as labourer's and lower grade artisans.

Supervising Engineers: Engineering Firms appointed by the Department of Housing to prepare project designs and manage the construction works in housing projects. The firms allocate the Engineer to manage the housing project and these Engineers are sometimes referred to as Project Managers. They are called Supervising Engineers in this research.

Internal Project Managers: Department of Housing Officials who work with Supervising Engineers to oversee the housing project for the local government.

Abbreviations

EPWP: Expanded Public Works Programme

PPPFA: Preferential Procurement Policy Framework Act

CIDB: Construction Industry Development Board

DPW: Department of Public Works

CETA: Construction Education and Training Authority

COJ: City of Johannesburg

SAFCEC: South African Federation of Civil Engineering Contractors

1.7 Chapter Outline

Chapter One

This chapter discusses the introduction of the research, the problem statement, research questions, research objectives, definitions and abbreviations and a chapter outline.

Chapter Two

This chapter is a review of the literature and conceptual framework of the building industry in the developing countries and in South Africa. Literature on Emerging Contractors circumstances in the Built Environment is discussed.

Chapter Three

This section discusses the research method that is used in the study. The tools and instruments used in data collection are discussed in detail.

Chapter Four

This chapter provides the background information of the case study. Research findings collected in the form of questionnaires and interviews is discussed. Results from respondents are illustrated using tables.

Chapter Five

Analysis of findings about the potentials, challenges and obstacles faced by the Emerging Contractors is discussed in this section. The analysis section provides answers to the research and subsidiary questions, asked in the first chapter. Conclusions drawn in the study are discussed in this section. Recommendations and areas for future research on the subject of Emerging Contractors are discussed in this chapter.

CHAPTER TWO CONCEPTUAL FRAMEWORK

2.1. Construction Industry in Developing countries

2.1.1 Introduction

Construction Sector accounts for a large share of capital formation. In developing countries, construction sector accounts for a greater share in the gross domestic product. Statistics indicate that in the SADEC Region, the minimum contribution of the construction sector to GDP was 3% in Zimbabwe in 1996 and the maximum was 16% in Malawi in 1998 (Datta M, 2000, p.2). Construction sector is often second only to agriculture as a source of employment (Nordberg, 2005, p.1). Datta agree that construction industry is a source of employment at various levels of skills from manual labour to semiskilled, skilled and specialist workforce. The volume of capital and labour interaction in the construction sector, indicate either the country's economic growth or decline. A boom in the sector, results to employment creation, growth and economic stability (Datta M, 2000, p.2, Palalani K, 2000, p.1, Materu S, 2000, p.2). Contractors, Construction Supervisors and Governments play a significant role in the development of the construction sector. However, in many developing countries, the construction sector is not well developed. According to Nordberg the construction industry does not fulfill it potential role in development. Hence, this poses serious problems for infrastructure and services development (Nordberg, 2005, p.1). There are many reasons for the sectors inability to yield good performance. These include, access to finance by Contractors, financial mismanagement, inadequate training of Consultants and Contractors, government policies and actions to mention a few. The challenges and obstacles that eventually lead to construction sector under-development in developing countries are discussed below.

2.1.2 Dependence on International Construction Firms

Because of the fact that contracting industry is not well developed in most developing countries, this sector is dominated by the foreign contracting firms. Due to the local contractor's lack of capital, equipment, technological know how and human resources to execute highly technological construction projects, international firms fulfill this gap. The involvement of foreign firms in the execution of construction projects is a necessity, in many countries. The advantages of hiring foreign firms, is that they provide bridging finance, which makes the implementation of several projects possible. Foreign firms bring into the country foreign investment which leads to increase in construction demand and create work opportunities which could have been otherwise impossible with local firms. Competition for jobs among foreign firms lowers the cost of the project. Moreover, the engagement of international firms offers scope for technological transfer and the development and upgrading of local firms (Ofori G 2000, p.3). As much as, obvious benefits are reaped in engaging international firms, however, there are limitations in the process. Developing countries are now over dependent on foreign firms. They do not invest in technology, innovation and research development because as and when these services are required, international firms are consulted. Moreover, governments in developing countries do not invest in capacity development of their local contractors. As a result, local contractors operate only small residential projects while the larger industrial and commercial projects are awarded to foreign based construction firms (Nordberg 2005, p.1).

In agreement Palalani argue that participation of foreign firms is necessary in the current circumstances. However, in a long run, their domination in consulting, contracting, sub-contracting and supply does not contribute to the countries socio-economic development. In Botswana, for example, local contractors have participated in the construction sector for over 20 years, yet they are still struggling, surviving largely through special dispensation schemes. Similar problems are experienced in Tanzania (Palalani K, 2000, p.6, Materu S, 2000 p.1). Ofori agree that foreign firms dominate the construction industry in developing countries. He agrees that in many countries technology transfer by foreign firms to local companies proves to be difficult. Firstly, foreign firms adopt strategies which do not support host countries effort to develop their industries because they view the whole process as nurturing future competitors. Secondly, local companies are in some cases, not in a position to benefit from technology transfer or to subsequently utilize the acquired expertise (Ofori G, 2000 p.3, Zwadie G and Langford D A 2000, p.7). Ofori therefore, suggest that since globalization is an inescapable fact, cross border strategic alliance among construction firms from developing countries in their countries and beyond is required. He argue that India for example, has skilled personnel and foreign enterprises have set up skills-intensive operations such as design and information technology offices in the country. However, few Indian construction firms are successful overseas. He believes that strategic alliance will enable firms to collaborate in modern construction business and technology development. This system has been realized in China. China has several international contractors but foreign firms are active on its market (Ofori G, 2000, p.8).

2.1.3 Access to Finance

Local Contractors are small in size as a result they are not able to raise sufficient working capital. According to Materu, the small size of contracting firms is a universal practice. Similar companies are found in the following countries; Japan (77%), United States (93%), Britain (89%) and West Germany (55%) (Materu S, 2000, p.3). These small firms have successfully carried out and executed construction works. Business size is not of significant importance. It is the promotion and support of these companies that lead to growth.

Local Contracting companies in developing countries, are not in a position to take care of insurance, bonds or secure sufficient materials credit to finance projects when payment by client is delayed (Nordberg 2005, p.1) In agreement Materu agrees that delayed payments affect business cash flow and lead to insolvency. Materu further argues that in Tanzania, finance and credit facilities are inadequate. Contractors have no collateral and the interest rate on overdraft is high. On top of this, Contractors are heavily taxed because there are no clear guidelines on the application of value added tax to construction contracts (Materu S, 2000, pp.4-5). Lack of resources leads to project delays, and sometimes failure. Additionally, lack of resources limit the scope of work for these companies. It is impossible to attract or acquire larger industrial and commercial projects hence growth potential is limited. In Tanzania, local contractors undertake construction work to the value of (USD 125 000) (Materu 2000, p.1). Similar problems are experienced in Botswana and South Africa and this hampers growth potential (Palalani K, 2000, p.6, Murray and Appiah-Baiden 2002, p.1, Nordberg 2005, p.1) Datta further argues that construction industry has low and unreliable rate of profitability hence margins are too low to sustain healthy development (Datta M, 2000, p.2).

In Tanzania for example, low returns confine small companies to employ less than ten permanent workers. It is also difficult to retain even the small number of personnel they hire, because the supply of work is not steady (Materu S, 2000, p.3). Another hindrance to Contractor development is the reliance by clients and public sector on selection of designers and contractors based on low tendered price. This system is argued by Datta to be the greatest barrier to improvement (Datta, M, 2000 p.3).

On the other hand, it is the lack of fiscal discipline, poor managerial and financial practices coupled with the attitude of neglecting financial matters that contribute to poor performance of Contractors (Ssegawa J K, 2000, p.5). A research undertaken in Botswana shows that a majority of Contracting Firms use pure cash based system, even for the payment of large amounts. Contractors argue that cash payments are preferred by Material Suppliers who have in the past experienced serious problems with bouncing cheques (Ssegawa J K, 2000, p.8). It is a known fact that managing a Company on cash based payment system, makes it difficult to accurately record and allocate transactions to costs and expenses. In these situations, it is also difficult to reconcile a bank statement because managers lose receipts or fail to submit them. Moreover, this system permits entrepreneurs or managers to use the money for personal use; as a consequence, they flout the financial controls they are supposed to strengthen (Ssegawa J K, 2000, p.8). Financial management practices take a back seat in many small companies. It was discovered in a research conducted in Botswana that none of the small Contracting Firms use qualified accountants. 40% of the companies use non-qualified personnel to manage accounts. 60% of the companies use qualified bookkeepers as Accountants. One can argue that mismanagement of finance firstly; contribute to the financial institutions perceptions that the construction sector is high risk business. Secondly, poor management of finance is a root cause to company failure.

2.1.4 Quality of the Construction Sector Products

Palalani and Materu argue that in Botswana and in Tanzania, the quality of construction products and services leaves a lot to be desired. Palalani and Materu argue that Contractors produce poor quality on site because either they want to maximize profits or they do not understand work requirements due to inadequate contract specifications. Company's insufficient resources such as capital, equipment and human resources are additional factors that contribute to project delays (Palalani K, 2000, p.4, Materu S, 2000, p.4). According to Datta in Tanzania, Zambia, Zimbabwe and Botswana 40% of construction is rework, 8% of total project costs account for accidents and 20% to 25% of materials are wasted. These are factors that contribute to the overall view that the construction industry is a poor investment (Datta M, 2000, pp. 3-5). In other cases, Construction Supervisors are either inexperienced, under-qualified or are not committed to the construction works. Lack of commitment is caused by lack of support from employers. It is prevalent for Construction Supervisors to carry on for months without pay. In such cases, Supervisors abandon sites or are subject to bribery by Contractors (Palalani K, 2000, p.4). In these cases, construction supervisors are the main cause of poor performance. They issue inadequate information to Contractors and expect them to be imaginative and solve problems on their own. Poor service to Contractors is also coupled with poor supervision (Palalani K, 2000, p.5). Hence, poor product is obtained at the end.

Another problem associated with the low standards in the construction sector is poor remuneration of public sector employees compared to their counterparts in the private sector. In Botswana, government is the major client of the Construction sector. For this reason, government requires highly skilled and technical personnel to implement development projects. Differences in remuneration package for staff that have same qualifications and experience in the public sector leads to loss of enthusiasm and commitment to work. This results in poor productivity and brain drain out of government (Palalani K, 2000, p. 5). In such cases, it is difficult to implement and monitor public development projects.

The absence of well organised Contractors Associations in developing countries has a negative impact on the sector. Materu argue that even when professional constituencies exist, they lack commitment to address Contractors challenges (Materu S, 2000 p.8). In the absence of Associations, it is not easy to disseminate and share information with stakeholders. Moreover, lack of information on long term vision and strategies of the sector, creates a situation whereby stakeholders operate on survival strategies and do not make future investments (Datta, M 2000 p.3). Promotion and strengthening of Contractors Associations is necessary because this provide an opportunity for Contractors to interact and share experiences. It also enables Contractors to participate in decisions about issues that affect them, such as, the type of training they require. Contractors Organisations provide stakeholders an opportunity to discuss issues such as, quality, standards and performance expected from the sector. An organized body organizes and tabulates development vision and strategies for Contractors, Sub-Contractors and Consultants and this lead to improved planning for both clients and stakeholders.

2.1.5 Vocational Training Schemes and Apprenticeship

Shortage of highly skilled and technical personnel is a common problem in developing countries (Murray and Appiah-Baiden 2002, p.1, Nordberg 2005, p.1). Datta argues that few people acquire technical and managerial skills required to get full value from developing techniques and technologies. Moreover, few people are being trained to replace the aging skilled workforce. The industry also lacks a proper career structure to develop and sustain supervisory and management skills (Datta M, 2000, pp.2-3). In agreement Nordberg agrees that apprenticeships and vocational training schemes appear to be inadequate in both quantitative and qualitative terms. In many instances, a large percentage of required skills are not available locally (Nordberg, 2005 p.1). The training schemes directed to local contractors are also inadequate. In many instances, there has been a lack of relationship between the Contractor capability and type of training provided. The design of training programmes have been based on principles of one size fits all. Furthermore, foreign consultants have been used in the design and implementation of training programme without due regard to local conditions (Nordberg 2005, p.1, Materu S, 2000 p. 9). In agreement Materu agrees that Contractors Training programmes have not been successful in Tanzania because they are not sustainable. Most of these training programmes are project specific, donor driven and over-dependent on donor funds. Similar cases were observed in Botswana, where the withdrawal of donor support meant that the programme did not continue at the same standard, unqualified and inexperienced staff took over (Palalani K, 2000, pp. 3-4, Materu S, 2000, p. 9). Other problems are that training is confined to the small project area and lack long term objectives. According to Materu, Local Contractors require training in business management and marketing strategies. Promotion of partnerships between local and foreign contractors provides on the job training (Materu S, 2000, p. 1-3).

2.1.6 Information and Research on Contracting Business

Construction Industry in many developing countries does not have records of its stakeholders. In Botswana for example, information about the number of Consulting and Contracting firms, local material producers and suppliers and training agencies is not known or not recorded (Palalani K, 2000, pp. 3-4). One can argue that foreign companies are expected to transfer technological know how and skills to local contractors. However, in the absence of records that indicate the capacity and experience of local Consultants and Contractors, opportunities of partnership and sub contracting between local and foreign contractors is limited. The absence of information about the number of local construction material producers, their location and capacity and services they provide limit their business scope and growth potential. For example, it is cheap to acquire materials from local suppliers than to import because transportation costs are lowered. Reliance on locally produced materials boosts the local economy and provides long term opportunities for innovation and construction sector development. However, the absence of basic information about the role players in the construction sector leaves Developers with no option but to rely on imports even when services are available on local markets. Data gathering is being implemented in Tanzania and positive results have been achieved. Botswana lags behind and South Africa is currently rolling out this process. Little investment in research and development is damaging to the industry's capability to keep abreast in innovation, technology and process (Datta M, 2000 p. 2). Lack of financial resources in Educational Institutions hampers the development of research and limits the sectors growth. Additionally, an investment in continuous research and monitoring to evaluate the impact of interventions as they are implemented will assist the sector to change to new strategies and try new methods in addressing problems (Materu, 2000, p. 12).

2.1.7 Donor Agencies Contribution in the Construction Sector

Like National Governments, Donor Agencies involved in infrastructure development in developing countries, requires the services of the construction sector. It is argued that in developing countries, International Donors such as World Bank prefer to engage foreign firms because they have experienced staff and proven track record compared to local firms (Zwadie G and Langford D A 2000, p.7). As a result, in Tanzania, for example stringent conditions for pre-qualification and tendering on donor aided projects prevent local contractor's participation (Materu S, 2000 p.6). One can argue that development projects driven by Donor Agencies should contribute to local development. Donors should play a role in promoting partnerships between foreign and local contractors. Moreover, technological and skills transfer should be supported so that local contractors are upgraded in the process. Donor Agencies assists governments in developing countries in various ways. In Botswana for example, the Swedish International Development Agency played a role in the establishment of the Integrated Service Board. SIDA was responsible for training Contractors. It is highlighted that training and advice received from professionals seconded by a Swedish International Development Agency played a major role in improving the capabilities of emerging contractors. It is said that withdrawal of assistance by SIDA resulted to poor service (Palalani K, 2000, p.7). This indicates that Donor Aided programmes do not gain government support. These programmes are also not owned by local citizens and skills transfer in these arrangements is not monitored and evaluated whilst the

Donor Agencies are still active in the area. Apparently, there is limited interaction between the Donor Organisations and the government's until the Donor Agencies withdraw their support. It is then, that the government considers taking over. Donor supported programmes require attention, prior to withdrawal so that continuity is maintained.

2.1.8 Government Policies and Actions

Government role in the construction sector is very crucial. Evidence from Botswana, shows that the government is a major client of the sector, therefore, industry growth and sustainability is linked to government policies and actions. Palalani argues that the government response to the Construction Sector challenges during national election period is destructive for the industry. He argues that creation of massive construction works towards national elections disrupts National Development Plans and result to a production of poor construction documentation and implementation because of time constraints (Palalani K, 2000, p. 5). Palalani, acknowledge that the Botswana government policies of price preference and 30% job reservation, 15% mobilization loan and reduced bond requirements are means and ways of providing an enabling environment to local contractors. It should be noted that the success rate of these measures is hampered by fronting, that is, work reserved for citizens is done by foreign owned companies (Palalani K, 2000, p.7). It is also noted that government interventions, such as, the establishment of Botswana Enterprises Development Unit later called Integrated Field Services made a significant contribution in assisting emerging contractors.

According to Nordberg public policies and regulatory framework in many developing countries does not encourage the development of the construction sector. For example, bureaucratic procedures and administrative processes involved in the registration of small firms are long, complicated, and difficult to follow and understand. As a result, small firms operate informally. This is a limitation in itself because firstly, complicated registration processes subject small companies to corruption. Secondly, it excludes these firms from participating in competitive tendering. Thirdly, they are constrained to work only as sub contractors (Nordberg, 2005, p.1). Policies related to technology imports, such as, high import taxes on construction equipment imposed by the government of Tanzania, negatively affect the growth of the industry. Because of high import taxes, available equipment is old and it breaks down frequently. The shortage of equipment, has also inflated the prices for hire or purchase (Materu S, 2000, p. 5, Nordberg, 2005, p.2). The government subsidies for certain materials, distribution and pricing control of the industry also affect the industry negatively (Nordberg 2005, pp. 2-3). In Tanzania, the quality of steel and cement is poor because importation of these products is unregulated (Materu S, 2000, p. 5). An environment that lack affirmative policies makes it difficult for Contractors to do profitable and sustainable business. Thus, absence of government interventions leaves the construction sector without any options but to perish.

2.2 CONSTRUCTION INDUSTRY IN SOUTH AFRICA

2.2.1 Historical Background

Construction Industry is an important economic wing in South Africa like in many developed and developing countries. Construction Industry contributes about US \$7 billion to GDP per annum (Gasa B, Barnes D, Ngqaleni M and Hodgson S, 2002, p.2). Construction Industry provides infrastructure required for other sectors to flourish and plays a significant role in creating employment for both skilled and unskilled (Palalani K 2000, p.2, Datta M, 2000, p.2). In South Africa, the construction sector is comprised of two types of Contracting Companies, that is, Established and Emerging Contractors. Well Established Contracting Companies were developed extensively during the apartheid era and they benefited a lot from home markets which were not exposed to external competition (Murray and Baiden p.5). The Established South African Contracting Companies have reached international competitive standards and they now compete with international contracting companies for construction works outside the country. In 1999 one of the Contractors called Murray and Roberts Ltd was ranked number 45 in the world, in terms of revenue earned in construction works acquired local and international (Murray and Appiah-Baiden 2002 p.7). Established Contractors nowadays depend on international business because the local market has shrieked. The government policies of preferential procurement practices motivate for small jobs which are not of economic benefit to large companies, because they are not profitable (Murray and Baiden, 2002 p.7). It is argued that limited participation of Established Contractors in local markets has a negative impact on the growth and development of the construction sector.

Government policies, such as, the Preferential Procurement Policy Framework Act promote the development of new small construction businesses, these are called Emerging Contractors in South Africa. These businesses are mainly owned by non-whites who were marginalized and excluded from participation in higher spheres of the building industry during the apartheid era (Murray and Appiah-Baiden 2002, p. 5). According to Murray and Baiden, it is crucial in South Africa to promote Emerging Contractors because they play a significant role. Emerging Contractors fill in a vital gap in the construction industry because they are always ready to carry out the very small and odd projects that the big, well established companies would not find profitable (Murray and Appiah-Baiden 2002, p. 6). One can agree that the services of the Emerging Contractors are necessary in the construction sector and that a development of this sector is crucial. However, Emerging Contractors should not be seen only in the light of small companies who should remain in this way. Support and mentorship programmes should give results to Companies that will grow and be competitive. Even when they do not reach the level of Established Contractors, in terms of size, they must provide service of equal standard. These businesses have potential to execute medium to large scale projects if training and support is provided. Emerging Contractors must be in a position to hire and retain skilled employees as is the case with Established Contractors. One can agree that the Preferential Procurement Act is one sided because the attention is given to Emerging Contractors whilst Established and Medium Size Companies are ignored. For growth and prosperity in the Construction Sector, there is need to balance the needs of both established and emerging contractors because they all contribute to the economy.

The policies such as the **PPFA** have been passed and are being implemented in the whole country; however, Emerging Contractors still face a number of challenges which negatively affect their growth and performance. Issues, such as, access to finance, delayed payments from clients, procurement practices, sustainability of the work flow and training and mentorship are among the obstacles that contribute to Emerging Contractors delay in development projects implementation. The problems encountered by Emerging Contractors, are a focal point of this study. The details are discussed below.

2.3 CHALLENGES OF EMERGING CONTRACTORS IN SOUTH AFRICA

2.3.1 Financing Construction Works

Most Emerging Contractors establish small construction businesses because they worked in the construction industry as labourers or lower grade artisans who were retrenched or retired early. Company owners in many instances; begin business operations after months or years of unemployment. These Small Construction Companies are therefore, an employment creation activity. Because of the time lapse, between remaining unemployed after retrenchment to running a company and earning money, many owners of these companies, have acquired personal debts and their names are listed on the credit bureau. Credit Bureau in South Africa is an agency that compiles all the names of bad debtors. Once registered in the credit bureau, one is not able to borrow money or conduct any business transaction with financial institutions. Until the name is unlisted from credit bureau, a person is not able to access credit facilities or schemes. It is argued that many Emerging Contractors have their names listed with credit bureaus, and this has become a hindrance for them to acquire working capital (CIDB 2004, p.26). Generally, it is also difficult for Emerging Contractors to develop a capital base as a means of providing working finance on future contracts (Murray and Appiah-Baiden 2002, p.9, Nordberg 2005, p.1, CIDB 2004, p.26, CIDB 2005, p. 4.). Their confinement to small contracts limit capital development opportunities further (CIDB, Best Practice Guide 2004, and p.1).

In South Africa, a number of Institutions, in agreement with National Public Works Department, provide bridging finance and sureties to emerging contractors at reasonable costs and interest rates. Khula Enterprise Finance Limited has a variety of financial schemes which provide access to micro-credit to people in both rural and urban areas. Khula Enterprise scheme provides guarantees that enable Emerging Contractors to access finance from banks. NURCHA provides bridging finance for Emerging and Established Contractors on a project basis. ABSA bank provides limited performance guarantees. Ithala Development Finance Corporation provides bridging finance, performance guarantees and insurances. Department of Trade and Industry, is responsible for the promotion and support of small businesses in the whole country (CIDB 2005, pp.10-12). It seems that different credit facilities have been developed to meet the needs of Emerging Contractors in South Africa. However, information about available financial opportunities is not known to Emerging Contractors. According to CIDB, the amount of time taken in acquiring guarantees and sureties lead to Contractors starting work behind schedule (CIDB Best Practice Guide 2004, p.8) As much as credit facilities are available, however, they are not affordable by intended beneficiaries. For instance, start-up Contractors do not meet the credit conditions required by financial institutions (CIDB 2005, pp.4 & 11, Murray and Appiah-Baiden 2002, p.9, CIDB 2004, p. 26, CIDB 2005, p. 4).

On the side of financial institutions, the absence of Contractor's financial records makes it difficult to assess the risk, evaluate and award guarantees. The net result is that the requirements limit even Contractors with potential.

With the large volume of Contractors not being able to meet credit conditions, some banks have developed a project management support for Emerging Contractors. The banks, project management division, manage accounts of the Contractor, that is, arranges payment terms with material suppliers and so on (CIDB 2004, p. 26). This system has been criticized by Emerging Contractors, as preventing the establishment of business relationship between contractors and material suppliers. Also, this method does not improve the track or financial record of their companies. Financial management of contracts by banks does not allow opportunities for business management skills transfer.

Public Sector intervention on credit issues has been to provide Cessions. Cession mean that the government department signs an agreement to pay material supplier directly from a Contractors account or contract, for the materials and plant supplied to the Contractor (CIDB 2004, pg 26). Contractors in these arrangements are not in control of business finances and cash flows hence the system is seen as disempowering (CIDB 2004, p.26). Additional administrative costs are incurred by both the Supervising Consultants and the public sector in cession arrangements.

2.3.2 Delayed Payments to Emerging Contractors

Delayed payments and settlements of final accounts are common and place strain on Contractors and Professional Service Providers performance. Delay in payments is a challenge in both public and private sectors and has detrimental effects on Emerging Contractors success. For instance, late payments affects cash flow management and credit worthiness of Contractors and this leads to project delays or failure, liquidation and loss of company profits (Nordberg 2005, p.1, Amod, Thatcher and Mabutana 2002, pp.1&3). The advantage of buying materials on discounts is lost. Inability to pay wages leads to disputes and work stoppage (CIDB, Best Practice Guide 2004, p.4). According to Amod, Thatcher and Mabutana, Public Works Department and Auditor General's Office have put a lot of effort into improving the payment situation in the public sector. CIDB agrees that even, the private sector lags behind on this issue (Amod, Thatcher and Mabutana 2002, p.6, CIDB 2004, p. 28, CIDB 2005, p. 4).

The problems of delay in payments are associated with lack of accuracy and correctness of invoices submitted by Consultants. The Department of Public Works pilot project has improved payment service to customers significantly. The average number of days to process payments has now been reduced from 28 to 20 days. Amod, Thatcher and Mabutana argue that improvement in payment processes requires commitment from Senior Management. A case study of Public Works Department shows that an effective reduction in payment delays need to be part of a long term strategy of transformation and improvement in organizational structure and systems (Amod, Thatcher and Mabutana 2002, p.7). For growth and sustainability in the construction sector, issues of delayed payments should be treated as high priority by both public and private sectors. Payment processes should be monitored and evaluated. Achieving high percentage payments to Contractors by one government department and 0% from other sectors and state bodies does not solve the problem.

2.3.3 Sustainability of the Work Flow

The preferential procurement system is in place, but Emerging Contractors still face work flow problems. The Contractors finish projects and stay on for sometime before they acquire the next project. As a result, Emerging Contractors business is characterized by high failure rate. For example, 1400 Construction Companies have been liquidated in the past three years (CIDB 2005, pp. 26-27). Low profit levels are a constraint to enterprise growth and sustainability. It is argued that from the local authority's point of view, engagement of Emerging Contractors in development projects is a job creation strategy. However, the problems associated with procurement practices, unstable work flow and low profit levels result to neither job creation nor economic empowerment (Meyer-Stamer 2003, p. 9, CIDB 2004, p. 27, CIDB 2005, p. 3). Furthermore, irregular contracts stigmatize the construction sector as high risk from the financial institutions point of view and make it rather difficult to access credit. Insufficient and unstable work flow hinders job creation.

2.3.4 Effects of Procurement Practices to Emerging Contractors

Government Departments, Local Authorities and Public Corporations use a preferential procurement policy as required by the Preferential Procurement Policy Framework Act (PPPFA). This Act allows different public sector entities to give preference to previously disadvantaged Companies when awarding tenders. Additionally, the Act enables public entities to use an unbundling system. An unbundling system is a tender process whereby construction works that can be performed by one Contractor is divided into small works and executed by more than one Contractor (CIDB 2004, p. 8). An unbundling system is advantageous in the sense that it provides business opportunities to a large number of firms thus expanding employment opportunities. It also encourages the development of Emerging Contractors. As much as, this Act is in favour of Emerging Businesses, it has brought lots of disadvantages in the Construction Industry. For example, it hinders the participation of Established Contractors because small contracts in big firms stretch management capability (Murray and Baiden, p.7).

On the Emerging Contractors view point, it was established that unbundling of tenders, does not bring with it maximum profits which can later play a role in sustaining the Small Company. It was discovered that both the Emerging Contractor and the Public Sector loose on this unbundling arrangement. Unbundled projects result to inappropriate division of responsibilities, increased contractual risk, and increased administrative requirements especially in the current circumstances of limited capacity in the public sector. This leads to increased costs to design and supervising consultants (CIBD 2004, p. 20 and CIBD 2005, p.5). In many instances Supervising Consultants are not compensated for the extra load that comes with supervising additional Contractors. The Contracts with these service providers is signed prior to the completion of the tender process, and at this time, the number of Emerging Contractors to be supervised is not known. Procurement practices had major obstacles for Emerging Contractors because many Government Departments extend tender validity periods. This became a norm in many Government Departments (CIBD 2005, p.5). The government department responsible for tender administration delays tender adjudication, evaluation and award. They then request Contractors to retain project amounts quoted on the tender until procurement administration process is completed. The increase in the costs of building materials, on either monthly or quarterly basis, means that extension of validity periods, result to outdated prices and limited opportunities for making profit.

In some cases, Consultants are responsible for the administration of the tender process. However, it is noted that when tenders are awarded, recommendations from Advising Consultants are ignored (CIDB 2005, p. 5). It is difficult for public sector employees to assess the Consultants selection criteria in the current procurement system. Generally, some Consultants have negative attitude towards Emerging Contractors. They diagnose them as failure and do not want to work with them (CIDB Best Practice Guide 2004, p.1). In other situations, procurement processes are flawed because everyone is eligible to compete or submit tenders and it is difficult to choose between committed and fly by night Contractors. In a context where contract competition is based on low tender price versus best value, innovation is discouraged (CIDB, 2005 p. 5, CIDB 2004 p. 20, (Gasa B, Barnes D, Ngqaleni M and Hodgson S, 2002, p. 2). Awarding low tender price perpetuate a selection of Contractors who fail to deliver expected results because the contract amount can not cover project costs. Additionally, this procurement system leads to corruption, as government officials communicate expected prices to their favoured Contractors.

The lack of uniformity in procurement documentation and procedure is yet another constraint. In some situations, it is difficult for Emerging Contractors to follow and understand complicated Contract documents (CIDB Best Practice Guide 2004, p. 1, CIDB 2005, p. 5). Firstly, a lot of mistakes are encountered in the Bills of Quantities which results into Contractors incorrectly charging low prices. Secondly, the procurement procedure is a long process which increase tender costs and contribute significantly to delays. Evaluation and awarding of tender is delayed because clients receive a large number of respondents, many of which are from Contractors who do not have the capacity to successfully implement the project. The absence of Contractor grading system in South Africa, exacerbates the situation further, it makes anyone eligible to submit tenders thus putting administration pressure to Clients. It is believed that the introduction of the Standard for Uniformity in Construction Procurement and the implementation of Contractor Grading System in Public Contracts, a system driven by the Construction Industry Development Board, will improve procurement efficiency and predictability to the benefit of both clients and industry (CIDB 2004, p. 21). The uniformity in procurement is likely to reduce delays and decrease costs associated with tender cancellation and re-tendering practices.

2.3.5 Performance of Consultants in Development Projects

According to CIDB current procurement practices have resulted in the non-competitive selection of Consultants. As it happens with Contractors, the preferential procurement practice prohibits or limits innovation on the part of Consultants, as well. Because of its rigid structure, the procurement process, does not reward performance (CIDB 2005, p. 20). As a result, the Public Sector is characterized by poor performing Consultants. The over reliance on low price has led Professionals to reduce their professional fees in a range of 15 to 20% in extreme cases to 50% (CIDB, 2004, p. 24). Other than contributing to Consulting Companies failure to make profits, the system has also restricted business growth. On one hand, unfavourable market conditions characterized by declining workloads and increased competition results to firms reducing fees (Rwelamila P D and Lobelo L, 2000, p.14).

On the other hand, small professional firms produce the quality of work tailored to suit the low price. Overall, poor quality work has consequences for not being able to obtain more work within governments departments they are engaged with or the private sector. Hence, sustainability and growth of these businesses is a major challenge. The poor quality of service received from Professional Consultants by the public sector is also linked to administrative issues within government departments. For example, often Consultants are appointed in the absence of adequate brief or clearly defined scope of work. This is due to inadequate capacity within government departments. In some instances, the changes in the scope of work is not co-operated in the employment contract. For example, some consultants are not compensated for additional work that requires them to supervise additional Emerging Contractors, in unbundled projects (CIDB 2005, p. 4).

A research undertaken by CIDB from Contractors confirms that Professional Consultants are either under-qualified or inexperienced. It is argued that Design professionals have lost expertise and capacity in developing specifications and documentation. Furthermore, inaccurate specifications lead to design modifications which results into time-consuming processes to settle variation orders and final certificates (CIDB, 2005 p. 22). It appears that economic instability and unpredictable work flow hinders Small Consulting firms from appointing experienced and highly skilled personnel. Moreover, Consultants either lack knowledge of the construction processes or are not able to stay abreast of the changes in construction technology. In some instances, Small Consulting Companies are tasked with large development projects that are beyond their scope. As a result, Companies are overloaded and have no resources and capacity to deliver on time. For example, the detailed designs are submitted to Contractors with errors and require rework by Contractors thus leading to unnecessary variation orders and construction delays (CIDB 2004, p. 22).

2.3.6 The Role of Public Sector Employees in Development Projects

In South Africa, government plays a major role in the delivery of infrastructure and services. Government relies on the services of the Construction Industry to deliver the services. For this purpose, government requires skilled and technical personnel to carry out infrastructure delivery, procurement and management of expenditure on capital budgets. It has been noted that the transition period led to loss of knowledgeable personnel in the public sector. In some Departments there is absence of technical skilled personnel. Highly technical and skilled personnel left the public service and opened small Consulting Companies to take advantage of the preferential procurement system (Rwelamila P D and Lobelo L 2000, p. 14). Similar problems were experienced by Established Contracting Firms. It is argued that affirmative procurement prompted many black professionals to establish their own practices without the benefit of mentorship received from senior professionals in larger firms (CIDB 2004, pg 24). According to SAFCEC, 70% of these businesses failed within the first year (Rwelamila P.D and Lobelo L 2000, p. 11, CIDB 2004, pp. 18-19, CIDB 2005, pg 4). The shortage of skilled personnel and resources in the public sector, led to the appointment of non-built environment professionals. In other public agencies, the problem of skills shortage was solved by promoting administrative staff into project managerial positions (CIDB 2004, pp.18-19) In agreement Meyer-Stamer argues that the shortage of highly skilled personnel and problems of insufficient resources in public agencies leads to problems of training and skills transfer for incoming or newly appointed staff (Meyer-Stamer 2003, p.14).

The management of development projects by low skilled, low educated and untrained personnel results to project implementation delays and under spending of budgets. Lack of capacity to plan, budget and take decisions during implementation of development projects lead to contract delays and disputes. It is highly unlikely to deliver development projects quickly and on time if payments to Consultants and Contractors are delayed (CIBD 2004, pp. 18-19, Gasa B, Barnes D, Ngqaleni M and Hodgson S, 2002, p. 2).

2.3.7 Training and Mentorship of Emerging Contractors

Emerging Contractors are mostly low educated and low skilled people. Owners of these Construction Companies have extensive practical work experience in construction sector. As much as, these business men and women have know how of the construction works requirements, they however lack business and financial management skills. According to Meyer-Stamer, lack of core skills among entrepreneurs, i.e. financial literacy, record keeping and marketing, are major constraints in business growth (Meyer-Stamer 2003, pg 7-8). Contractors require assistance in terms of pricing of contracts and the compilation of accounts or invoices (CIDB, 2004, pg 26). The mistakes in contracts pricing lead to low tender price which then translates to tender award. The net effect is that it is impossible to make profits and this result to insolvency, project failure or delays. Several mentorship programmes have been designed by different government departments and implemented in different Provinces of South Africa to assist Emerging Contractors with their activities. Construction and Education Training Authority (CETA), was developed in year 2000 and is responsible to provide training and skills development in the Construction sector. This government body trains groups of women who own and manage small Construction Companies. The National Department of Public Works plays a leading role in the provision of training for Contractors. They have developed an Expanded Public Works Programme Contractor Learnership Programme. This programme is tailor made for Emerging Contractors to participate in labour intensive construction works. The limitation with these programmes is that the information about these services is not shared with other government departments who engage emerging contractors in their business. There is also a Contractor Incubator Programme, this programme promotes medium size emerging contractors that demonstrate potential to perform contracts in the R1 million to R30 million range. Sakhasonke Emerging Contractor Development Programme provides entrepreneurial training for small start up businesses. It provides access to experienced and accredited mentors and opportunities for evaluation and monitoring of progress (CIDB 2005, pp.7-8). The service provided by different agencies is similar but differs in scope. Service providers do not work together hence co-ordination, communication and sustainability are major challenges in training programmes. Lack of communication creates problems of information dissemination. As a result, Emerging Contractor's are not aware of training and mentorship programmes available in different Institutions. Other Contractor mentorship initiatives include the Kwazulu Natal Provincial Department of Transport Vukuzakhe Emerging Contractor Programme, Limpopo Sakhasonke Contractor Development Programme, CSIR- Emerging Contractor Development Model, SAFCEC Emerging Contractor Development Model, Ethekwini Municipality Emerging Contractor Learnership Programme (CIDB, 2005 pp. 7-9). The research conducted by CIDB confirms that participation by Emerging Contractors in these mentorship programmes is an economic advantage for Contractors. Firstly, they acquire skills which advantage them in acquiring more business within the government departments they are engaged with. Secondly their participation enables them to acquire financial resources from financial institution because they are not seen as high risk (CIDB 2005, p. 26).

As much as, benefits are reaped from training and mentorship programmes, however, they are coupled with limitations as well. Emerging Contractors are known and acknowledged only by those departments that provide the training programmes. Participation in mentorship programmes by Contractors is not known to other departments and is also not rewarded and does not add value in a tender competition. Another, limitation in mentorship is lack of continuity. For example, when the project finishes, Contractors are left on their own with no work. The whole training programme becomes a waste because it does not provide Trainers the opportunity to assess and evaluate the skills acquired by Contractors. Training and mentorship programmes are short sighted in their nature and design. The programme is implemented in a specific time because in many cases, Institutions have to quickly deliver or spend their budgets. Training is provided as an emergency and is not planned and implemented as a long term investments.

2.3.8 Health and Safety in Construction Works

Accidents and deaths due to construction activities are becoming common in South Africa. Communities in informal settlement upgrading projects, for example, have experienced accidents in the form of children falling into opened and unprotected water or sewer trenches (Star Newspaper, May 2004). In other cases accidents are caused by neglect from labourers. Construction workers avoid using safety goggles and masks when working with grinders and asbestos, even when these tools are provided. In Emerging Contractors circumstances, they barely maintain tools and regard safety equipment as luxury items (CIDB 2004, p. 33, Datta M, 2000 p. 8). The 2003 regulations of the Occupational Health and Safety Act place a responsibility and liability for health and safety on both client and contractor, from design through to implementation (CIDB 2004, p. 8). The implementation and monitoring of the Act is likely to improve the situation. Apart from increased compensation and medical costs, accidents contribute to loss of time, rework, damage to plant and equipment, disruption, productivity loss and the loss of skills to the economy (CIDB 2004, p. 34).

2.4 CONSTRUCTION INDUSTRY DEVELOPMENT BOARD

2.4.1 The Establishment of the Construction Industry Development Board

The Construction Industry Development Board was established in year 2001 to provide regulatory and development framework that enhances the role of stakeholders in industry growth, delivery performance and transformation (CIDB 2004, p. 8). The principal goals of the Board are to ensure total capability in the built environment to meet development needs of the whole society. It is also to ensure that Construction Industry offers access to mainstream economy for sectors of society disadvantaged by the policies of apartheid. The overall goal is to ensure that the construction industry is competitive and meet global standards of performance in terms of quality, productivity, safety, health and the environment (CIDB 2004, p. 8). The establishment of the CIDB is in line with the 1999 Construction Industry White Paper and the Construction Industry Development Board Act, Act 38 of 2000. In this Act the CIDB is defined as a statutory body (CIDB, Construction Registers Service, p. 1).

2.4.2 Interventions by Construction Industry Development Board

2.4.2.1 Construction Registers Service

As an overseer in the construction sector, CIDB interventions are ways of addressing industry challenges. The Board's interventions to date include, conducting research, organizing workshops and national conferences with different construction stakeholders to provide opportunities for dialogue and finding solutions to the industry's problems. Additionally, CIDB has developed and is currently implementing a Construction Registers Service. The purpose of this service is to register Contractors who undertake construction work for the public sector and to categorize them in accordance with their capacity (CIDB, Construction Register Service, p. 1). A register, provide data of Contractors operating in the industry, with regard to size, capability and distribution. The registration of Contractors is a response to some of the Contractors challenges mentioned in this chapter, such as, low or absent sustainable work flow, high failure rate, rigid and long procurement processes etc. Contractor's registration is intended to reduce tendering costs and administrative burden relating to evaluation and award of contracts (Construction Register Service, p. 3). It is noted that a lot of time is wasted in the preparation of tenders by Contractors and the evaluation and award of same tenders by Clients. Clients evaluate volumes of tender documents even from Contractors who are not capable of implementing construction works. With the register in place, Contractors will tender for construction work within the specified categories and graded levels. The register is a transparent process that provides information about the Contractor's financial and technical performance. The register makes it easy for CIDB to establish a Contractor's track record and monitor performance on an ongoing basis (Construction Register Service, p. 3). Thus in situations where, Contractors do not perform according to standards, problems will be identified and necessary training will be offered.

Registration of Construction Projects is also being undertaken. This system registers all public and private sector projects valued from 300 000 rands. The aim of the register is to gather information on the nature, value and distribution of public and private sector projects. It also promotes transparent practices that shape healthy, sustainable and competitive industry (Construction Register Service, pg 4). The register is an information source for the construction sector and will benefit decision makers, clients, service providers, contractors and the public in understanding the functions of the sector. Moreover, it will provide information or knowledge that will lead to service improvement. It will also improve financial planning and enable authorities to identify the cost of activities that are undertaken and ensure better or more informed decisions about the use of resources and delivery of services, a key challenge in the public sector (Pautz,Watermeyer and Jacquet, 2002, p. 5). The main challenge for CIDB is invisibility, the Board and it activities are not known or well communicated to different government agencies.

2.4.2.2 Code of Conduct

Code of Conduct is another instrument that has been developed by CIDB. The Code of Conduct emphasize transparency, honesty, good behavior and compliance to legislation and regulations in procurement practices by all parties in public and private construction related business (CIDB, Code of Conduct 2003, pg1&3). The code of conduct was developed as a response to irregular behavior, such as, fronting by emerging contractors for established contractors, abuse of subcontractors by prime contractors in payment procedures i.e. pay when paid or pay if paid basis and nepotism and favouritism in the award of tenders by public and private sectors (CIDB Best Practice Guide 2004, p. 1, CIDB 2005, p. 4). It is believed that the conduct of parties in the sector, impacts on the industry's ability to deliver value and to perform efficiently and competitively.

.5 Expanded Public Works Programme (EPWP)

The transition period came up with a lot of economic challenges in South Africa. Like other transitional countries, South Africa, has problems of low economic growth, diminishing manufacturing and clothing industry resulting to retrenchments, demand for highly skilled and experienced personnel and high rates of unemployment resulting from the factors mentioned above. As a response to economic challenges, the South African government has introduced the Expanded Public Works Programme as an effort to create jobs and reduce poverty. The Expanded Public Works Programme therefore, covers all spheres of government and state owned enterprises. The EPWP is a large scale programme of using labour intensive methods to deliver essential social, environmental and cultural services and infrastructure. These services include upgrading of rural and municipal roads, municipal pipelines, storm water drains, paving, water supply and sanitation, maintenance of buildings and social facilities such as schools, hospitals, clinics etc (Media Release, www.publicworks.gov.za 2004/05/17). EPWP is not a short term solutions to unemployment reduction, the programme aims to create jobs and provide training and skills development for future employability and to increase capacity for people to earn an income (www.epwp.gov.za). Research conducted by Statistics South Africa confirms that young people, age's between 18 to 34 are hard hit by unemployment. About 70% of them have never worked. Therefore, EPWP, in these cases, provides training and exposure to the working environment (www.epwp.gov.za).

2.5.1 Effects of the Expanded Public Works Programme

Implementation of labour intensive methods, in infrastructure projects is expected to generate a lot of jobs for local unemployed and unskilled people. The EPWP promotes an appropriate mix of labour and machines. However, it does not mean that efficiency, cost effectiveness and quality of the product will be compromised (www.epwp.gov.za). The training offered to Contractors and Construction Supervisors and practical training provided to the labour force enables them to deliver quality products on a specific time period. The EPWP programme will develop skills and improve productivity of the labour force. The Infrastructure sector of the EPWP comprise the following government bodies, Department of Public Works, Transport, Housing, Water Affairs and Forestry, Provincial and Local Government, Public Enterprises, Education, Eskom and the Independent Development Trust (www.epwp.gov.za). It is early to critically analyse the EPWP success rate because it is at the inception stage. If the programme is implemented as planned, it will lay foundation for integration and exchange of information and ideas among different government departments.

2.6 Conclusion

The status of the construction sector in developing countries is discussed in this chapter. Problems associated with barriers to growth of the construction industry in developing countries such as access to finance, poor quality of products and services, lack of highly skilled and technical personnel, inappropriate training, lack of investment in research and development, absence of organized, active and committed Contractor and Professional Associations, government policies and actions, are some of the problems that contribute to construction industry's under-development. Construction Industry challenges in South Africa is also explained. Special attention is given to the issues affecting Emerging Contractors, in their ply to establish and grow their businesses. Key obstacles to their success is linked to the following issues, access to credit, financial management, delayed payments by clients, adhoc work flow, procurement practices, poor quality of work resulting from poor supervision, inadequate training and mentorship and health and safety on site. Initiatives that support Emerging Contractors, such as, Contractors Registration conducted by the Construction Industry Development Board are explained. Policy programmes, such as, the Expanded Public Works Programme, that brings changes in the construction sector and an analysis of the programme impact on Emerging Contractors is discussed. This chapter has clearly described the strengths, weaknesses and obstacles faced not only by Emerging Contractors in South African but in developing countries. The analysis and recommendations in the following chapters will try to find solutions to some of the problems discussed in this chapter.

Chapter Three Research Methodology and Data Collection

3.1 Introduction

This chapter discusses the method used in acquiring information in this research. The sources that are used in data collection are discussed. Research tools, such as, interviews and questionnaires are discussed in details in this chapter.

3.2 Research Method

The research is both descriptive and exploratory. It uses qualitative methods. Information or research data was collected in the form of questionnaires and interviews from Emerging Contractors, Construction Supervisors and Government Officials on issues relating to opportunities, obstacles and recommendations in the construction of low cost housing.

3.3 Data Collection

3.3.1 Primary and Secondary Sources

The researcher collected information from the library and internet. Books and Journals were used to review literature on the subject. Newspaper articles, Ministers Speeches were used as primary sources of information. Internet was used to get information from different Organisations, such as, Construction Industry Development Board, Financial Institutions i.e. Standard Bank, ABSA, First National Bank to mention a few. Government Departments such as Public Works, Department of Housing, Trade and Industry and the City of Johannesburg web sites were visited to search relevant information to the study. Published and unpublished conference papers on the Construction and Emerging Contractors subject are used in this study. National Department of Public Works officials, Department of Housing officials and CIDB official, Financial Institution officials were interviewed. Information from Supervising Engineers and Site Managers was collected in a form of questionnaires. Emerging Contractor's involved in the delivery of low cost housing projects implemented by the City of Johannesburg Housing, were interviewed. Questionnaires were both open-ended and closed questions, refer to the attachments.

3.4 Respondents to the Research

3.4.1 Emerging Contractors

Emerging Contractors were the core respondents in the research because the focus of the research is to understand Emerging Contractors challenges and obstacles. An interview with Emerging Contractors was carried out in the form of a questionnaire. During the research period, most Contractors were given final month extension to complete their projects. Therefore, it was not possible for the researcher to organize a focus group as planned earlier. The researcher, therefore, visited Emerging Contractors on the construction site and carried out interviews on the project site. Information was collected from Emerging Contractors from different Housing projects in different regions of the City of Johannesburg. The researcher carried a questionnaire and she asked questions verbally reading from the questionnaire and she recorded the answers on the questionnaire.

Fourteen Emerging Contractors were interviewed. These Contractors comprises of both Emerging Contractors who are good and bad performers. Interviews were done in a local language. Interviews with Emerging Contractors provided an opportunity for the researcher to understand Contractors obstacles and challenges. The researcher believes that Contractors are involved in the construction business, they know their obstacles better and they can provide better solutions to problems they experience.

3.4.2 Supervising Engineers

Supervising Engineers role in the implementation of Housing projects is to supervise construction activities of Contractors. Most Engineering Firms assign a Professional Engineer, an Engineers Assistant and a Site Manager to each development project. Information from Engineers was carried out in the form of questionnaires with the whole team i.e. Site Engineers, Engineers Assistants and Professional Engineers. A Research Assistant was appointed to assist the researcher to collect information from Construction Engineers. A questionnaire was sent electronically to twenty Construction Supervisors and their Assistants. They were supposed to fill in the questionnaire and return it to the Research Assistant. However, this method did not work. There was no response from Construction Supervisors. Therefore, the Research Assistant had to visit Construction Supervisors in their offices. They were given a questionnaire and filled it themselves. Only five Supervising Engineers were interviewed. Input from Construction Supervisors is valuable in this study because they deal with Contractors on daily basis. They know and have hands on experience, about the challenges faced by Emerging Contractors. Professional Engineers work with both, officials from Department of Housing and Contractors. Their role as Client representatives and supervisors make them an important source. Information about housing delivery challenges from both Contractors and public sector perspective is understood better by Supervising Engineers.

3.4.3 Johannesburg Housing Officials

Internal Project Managers as they are called in the Housing Department, have first hand experience because they are involved in all stages of the housing project cycle, from inception to completion stage. They work with Emerging Contractors and are aware of their obstacles, weaknesses and strengths. Housing Officials were also interviewed in the form of questionnaires. The researcher sent the questionnaire electronically to officials for them to fill and return. Like in the case of Consultants, this research method did not work because Housing Officials did not respond. The Research Assistant together with the Researcher collected information personally from Officials. Visits were paid to the Regional Offices where eight Internal Project Managers, two Assistant Directors and two Deputy Directors were interviewed. Officials were given questionnaires and they wrote their responses on their own. The whole process was time consuming because officials from the Project Management Section are now placed in different Regions. A secondary aim of the interviews was to establish if Housing Officials do not contribute to delays. Housing Officials level of education and skills are issues that indicate their potential and capabilities to manage projects professionally. Housing Officials were asked about the Expanded Public Works Programme, to establish if they know about it and if they have received workshops because it is important to inform officials about changes that take place in project implementation. Officials were asked about CIDB to establish if they are well informed about new initiatives and interventions in the construction sector.

3.4.4 Johannesburg Procurement Official

The Procurement Department is responsible for the co-ordination of the tender process. They issue tender documents to Contractors. They advertise and receive tender proposals, and together with Housing Officials and Supervising Engineers, they shortlist, select and award tenders. Information was collected from Procurement Officials through personal interviews. The researcher had a one on one interview with a procurement official to find out about the procurement process, that is, the time it takes to conclude or finalise the tender process, from advertisement to appointment stage, the selection method or criteria of selecting the best tenderer and the challenges and obstacles found in the procurement process.

3.4.5 Department of Public Works Officials

Interviews were undertaken with two officials from the National Public Works Department in Pretoria. Interviews were carried out with an official who is in charge of the Expanded Public Works Programme. Information about the Expanded Public Works Programme and its implementation was collected in a form of a one on one interview. The information about EPWP information dissemination strategies and actions was confirmed or cross examined with information collected from Housing Officials. Another interview was carried out with an Official who works in the Contractor Training Division of Public Works. The aim of the interview was to establish the type of training offered to Contractors. Also, it was crucial to understand Public Works Department selection criteria and to understand how the whole process is managed, since training needs differ.

3.4.6 Construction Industry Development Board Official

A one on one interview was carried out with a Manager from CIDB. CIDB is an Organisation Body that was formed in year 2001. They are responsible for enhancing growth in the Construction Sector. They have organized Conferences, Seminars and Workshops on different issues affecting the Construction Industry. They have also developed different tools such as Best Practice Guidelines, Code of Conduct and Constructors Registers as a response to industry challenges. CIDB official was asked about their communication strategies with stakeholders. The information collected was cross examined with information collected from Emerging Contractors. For example, it was interesting to know if Emerging Contractors know about CIDB and Contractor registration. It was also interesting to discover how Emerging Contractors got to know about CIDB and its strategies. CIDB official was also asked about the effectiveness of the instruments that are currently rolled out, such as, the registers and adherence to code of conduct and their evaluation thereof.

3.4.7 Financial Consultants from Financial Institutions

It is noted that the financial sector views Construction as high risk business. Therefore, the finance services towards construction are tightened. Many formal and informal lending institutions provide finance to Contractors. It is also obligatory for Contractors to receive insurance and surety before Construction commence. The research tried to unpack the conditions linked to access to finance for Small Contractors. Information was collected from three financial institutions, that is, Standard Bank, First National Bank and ABSA Bank, in the form of interviews. Information was collected from bank websites.

Chapter Four Research Findings

Introduction

This section discusses the background of the project area. Findings of the research are given in detail in this section, and research analysis is presented in the next chapter.

4.2 The City of Johannesburg

Johannesburg City is the largest city in South Africa. The City has a population of approximately 5 million people. Johannesburg is landlocked and located in the centre of South Africa. Johannesburg is the largest producer of gold. The City was formed after the discovery of gold in 1886. The Mining Industry has contributed to the city's economic and population growth because this sector provided employment opportunities to a large number of unskilled and few skilled personnel. However, with the introduction of information technology, this trend has been reversed.

Johannesburg City has one Mayor and an Executive Council which is the political wing of the city. The Mayor and the Executive Council work with the City Manager who is responsible for the overall management of the City. The City Manager works directly with Executive Directors who head different departments in the City. The City of Johannesburg has privatized most of its activities in services such as water and sanitation, waste removal, roads, electricity etc. Most City Private Entities are wholly owned by the city. Housing Department still falls under the Johannesburg City Council; none of its activities are privatized. Johannesburg City has decentralized operational powers and functions into eleven City Districts/ Regions. Each Region/ District has a Housing Unit within it (van Winden, W, 2002, page 72).

4.3 Functions of the Department of Housing

Housing is one of the core functions of the Johannesburg City Metropolitan Council. Provision of a starter house to the poor communities is a policy of the South African Government (South African Housing Policy, 1994). From 1994, the implementation of housing projects was a responsibility of the Provincial Departments of Housing and Municipalities played a limited role. The approval and funding of Housing projects was done at a Central Government level. This practice has changed; housing provision has been decentralized to Municipalities. This means that Municipalities are leaders in identifying and prioritizing potential housing projects. However, the approval and financing of the current projects still lies with the Gauteng Provincial Department of Housing.

The City of Johannesburg Housing Department therefore, divides its tasks in the following Programmes;

1. Mayibuye and Essential Services: this programme deals with Greenfield Projects. The planning processes from land identification to the establishment of the township and installation of bulk and internal services are undertaken by this programme.
2. Informal Settlement Upgrading: this programme deals with the formalization of the informal settlement through formalizing township establishment and providing basic services in the area.
3. Peoples Housing Process: this programme provides starter houses to the poor families. Households participate in the building of their houses through sweat equity.
4. Turnkey Housing Project: is a developer driven project. Private Companies are involved in the planning, implementation of services and the construction of houses and hand over the complete house to the intended beneficiaries.
5. Hostel Upgrading: is a type of housing that was designed for single people. However, due to unavailability of low cost housing, the hostels are now occupied by families. Hostel Upgrading Programme is upgrading the single units into family units and improves the standard of services.
6. Social Housing: deals with the construction of rental stock and the maintenance and management of the already existing Municipality Rental flats.
7. Title Deed Scheme: deals with the registering and transferring of title deeds from the Municipality to the beneficiaries, especially in the townships, where a majority of people were not allowed to own properties during the Apartheid era.
8. Housing Allocation: this programme deals with the allocation of households to the Municipality Rental Flats.

4.4 Discussion of Research Findings

4.4.1 Educational and Career Background of Emerging Contractors

It was established in the research that contracting business is a business venture that is open to all people. Interviewed Emerging Contractors show that they come from different backgrounds. Only five Contractors were technicians prior to opening the contracting company. They worked in the construction sector as foreman, bricklayers, painters etc. Nine Contractors were trained in different careers, such as, bookkeepers and administrators and were never involved in construction industry at all.

Table 1 Emerging Contractors Education Background

	Number of Respondents	Percentage
Technical Skills	5	40%
General Skills	9	60%
Total	14	100%

Table 1 indicates that only 35% of Emerging Contractors have technical skills.

The attraction with the construction sector is that, working capital is not required when opening a business. There are no selection criteria, as a result, everybody is eligible to participate, including people who are not skilled in the construction area.

Concluding from the respondent's comments or remarks, one can argue that, Construction industry is considered as last resort career option by people who have failed elsewhere. A CIDB official confirmed in the interview that Emerging Contracting business is open to everybody to the extent that, Contractors perceive tender awards as their right and they equate it to government grants. For example, acquiring a tender is perceived in the same light as acquiring a housing subsidy or a child grant.

As much as, the research reveals that Emerging Contractors have limited skills, however, housing projects have provided an opportunity for them to learn and acquire experience. It must be noted that the caliber of people involved in housing delivery makes it difficult to deliver housing on time. Even Contractors who are technicians, admitted that they were skilled as bricklayers, painters etc and had experience in building a house, however, they were awarded tenders to install services. It was their first time to do a contract of service installation nature.

4.4.2 Finance and Cash Flow Management

Responses from Emerging Contractors indicate that Emerging Contractors have problems acquiring sureties and loans from Financial Institutions. Ten out of fourteen Contractors had problems acquiring financial assistance from banks. The banks require deposits or securities from Contractors. Ten interviewed Contractors said they depend on project payments for cash flow and working capital. Access to finance, is further compounded by the idea that Contractors are awarded Contracts that are below market rate. In these cases, Emerging Contractors are not able to make profits and they are not able to use Construction Contracts as collateral. Another issue that came up strongly is the idea that Emerging Contractors lack information and knowledge about the finance system. Sureties and Insurance is always sought after tender award. Contractors said, this is due to the fact that tendering is competitive, they are always unsure whether they will be selected. Secondly, if they are not successful with banks, such as, Standard Bank, Absa etc they do not know other Insurance Companies that can offer them sureties. One of the Contractors said he started behind schedule because after failing to acquire surety from formal banks, he was offered insurance by an illegal insurance company that was not approved by Johannesburg City. Eleven Contractors said they started on schedule because their mentor organized sureties and insurances on their behalf. However, the project was not finished on time because of late payments received by Contractors.

Table 2 Emerging Contractors Completed Construction Work on Time

Completed on Time	Number of Respondents	Percentage
Yes	3	20%
No	11	80%
Total	14	100%

Table 2 indicates Contractors who finished work on time. 20 % Contractors who finished on time, did not have financial problems. One out of three good performing Contractors made use of Cessions.

A CIDB Official indicated that, in some cases, Contractors receive financial assistance from financial institutions but they lack financial discipline. For example, some Contractors use business loans for personal and private use, such as, buying luxurious motor vehicles which do not benefit their businesses in any way. Others do not honor loan repayment obligations and get taken to credit bureau. Officials from different financial institutions said it is difficult to offer working capital to Contractors because of the unpredictability of the Construction Industry. Contractors usually do not have repeat orders from their customers and their business always depend on tender competition which in itself is unpredictable and cannot act as security.

4.4.3 Project Delays in Housing Projects

Responses collected from Housing Officials, Consultants and Emerging Contractors agree that delays occur in the housing projects. All twelve housing officials and five Consultants said Emerging Contractors are part of the problem. Delays occur because Emerging Contractors fail to secure sureties on time and they have no funds to execute the projects. Emerging Contractors perceive project delays as caused by access to credit, cash flow and financial management skills. According to Consultants, Emerging Contractors, do not have construction knowledge and expertise to carry out housing development. Some have expertise and experience in building a house, but are awarded tenders for sewer and water pipe construction. Others have knowledge in pipe laying, but acquire tenders in road construction. Learning on the job without enough manpower or mentors is another contributory factor to delays and leads to poor workmanship.

Officials agree that delays in housing projects are not caused by Emerging Contractors alone. Three Housing Officials said delays in the housing delivery are caused by poor planning and budgeting within the department. Officials argue that housing projects are not allocated proper budget for the undertaking of planning processes, yet time and money is wasted at this phase. Five out of twelve housing officials said housing delivery delays are caused by bureaucracy and red tape associated with the township establishment approvals. Housing Officials argue that town planning approval processes and procedures are long. For example, they wait for a period of six months for environmental impact assessment. Only two officials said housing projects are delayed by the bureaucracy and complication associated with funding approvals between Provincial and Local Governments. They said, in some instances, funding is granted and allocated but project costs are higher than available funds. The realization that budget allocated is smaller than total project cost, is always discovered at the tender stage. The shift to debate and address budget issues, prior to calling for tenders will smoothen and speed up the adjudication and selection process. Also, time and money lost in retendering will be saved. One official indicated that that community dynamics and political instability are also contributory factors to project delays. Changes in political structures at community level, demands more time for consultation between officials and communities and these sometimes lead to delay.

Table 3 Cause of Delays in Housing, housing official’s perspective

Cause of Delays	Number of Respondents	Percentage
Town Planning Approvals	5	40%
Poor Planning and Budgeting	3	25%
Funding Approvals	2	15%
Re-Tendering	1	5%
Community Dynamics	1	5%
Total	12	100%

Table 1 shows the causes of delays in housing projects

Consultants agree that bureaucracy and town planning approvals contribute to project delays. However, they are in agreement with Housing Officials that Emerging Contractors contribute to implementation delays because of the problems discussed above.

4.4.4 Employment Sustainability

Emerging Contractors say it is not difficult to start a business in contraction. Even in the absence of working capital, one can rely on project payment to pay for works. Moreover, working capital is easily generated from profits. However, the problem is that it is not easy to acquire contracts. Firstly, Emerging Contractors are not able to respond to tender documents. Eight interviewed Contractors said they hire people to fill in tender documentation. Four Emerging Contractors said they fill tender documentation themselves. Contractors who are able to respond to tender documentation are those that have worked in the Construction Industry for a long time. Two Contractors said their tender documentation was filled by business partners who wanted to join venture with them.

Table 4 Ability to prepare tender document specifications by Contractors

Preparation of Tender Documents	Number of respondents	Percentage
Hire professionals to fill tender document	8	60%
Tender Document Filled by Contractor themselves	4	30%
Tender Document filled by Join Venture partners	2	10%
Total	14	100%

Table 4 shows that Emerging Contractors are struggling to understand tender documentation. 60% hire people to do this task for them

However, the two Contractors who were assisted in submitting tender documents, said the joint venture partnership did not work. They said, Established Companies bring in money in the project which is a good thing, but they end up controlling the whole project. Emerging Contractors end up having no voice and are not able to learn to manage the Contracts in the process. They said that, in other cases, established companies buy them out and manage the project on their own. Some Contractors identified the inability to fill in tender documents, as a reason for their failure to acquire more tenders.

They said that even when they submit tenders they do not receive a feedback about the reasons for their failure. As a result, they are not able to improve in future tender competition. In contrast, an officials from COJ Procurement Section said, it is difficult to provide feedback to Contractors because they submit their tender documents in large numbers. Adjudication and selection of Contractors is an administrative burden. A CIDB official agreed that they are aware of the problems of the procurement processes especially in the government departments. He said that the registration and grading of Contractors will address these problems.

Only two out of fourteen Contractors have jobs currently lined up for them. Most Contractors complained that they stay a long time without a job and this affect continuity in their business. Even when, profits are made in previous jobs, they are utilized and they have to start all over again to acquire capital. Even, good performing Contractors experience workflow challenges. A CIDB official said this is also caused by the fact that many Contractors are in low grades, that is, they are able to execute construction work to the value of four million rands and less.

4.4.5 Payments to Emerging Contractors

Acquiring contracts from the Housing Department is an opportunity for making profits and gaining experience in housing delivery. It was discovered in the research that a majority of Emerging Contractors depend on project payment. All fourteen Contractors and five Consultants said their payments are always delayed. Delay in payments is disastrous because it reduce the probability to make profits. Emerging Contractors said late payments result in material and plant suppliers charging interests. The opportunity to get discounts is also lost. Late payments create a bad name to material suppliers and it is difficult to secure credit for future use. Under the circumstances, it is also difficult to manage cash flows and meet project targets and is a major reason why project implementation is delayed. On the other hand, Contractors said delay in payments is caused by bureaucracy. Payments are submitted by Contractors to Consultants (Construction Supervisors) who take time to approve payment certificates; by the time they are received by Housing Department they are already late. Other than the inability to make profits, delayed payments also cause labour disputes. If workers are not paid on time they either go on strike or leave work. Labour disputes are time consuming and they delay progress on site.

4.4.6 Training and Skills Development

It is explained above that Emerging Contractors come from different career backgrounds. Few of them have expertise in the construction industry. Most Contractors are skilled in one trade such as bricklaying, pipe laying, house construction and these Contractors hardly get tenders in areas of their expertise. Engaging Emerging Contractors in Housing Projects therefore require that Emerging Contractors be trained. Housing Officials and Consultants agree that Emerging Contractors lack administration and technical skills, project management, finance and cash flow management. They also suggest that for Emerging Contractors to be engaged in housing projects training needs to be provided. Moreover, a mentor needs to be assigned to Contractors and budget for training needs to be allocated. They believe that training will improve the performance of Emerging Contractors.

On the part of Emerging Contractors, they perceive training as an instrument that will assist their businesses. Ten Contractors said they need training on tender documentation preparation, two need business management training. Project and Contract Management, Finance and Cash Flow Management are a desirable training by all interviewed Contractors.

It was discovered in the research that five Emerging Contractors have participated in different types of training in an adhoc manner. The Department of Public Works Official, confirmed in an interview that they have a section in the Department that is responsible for Emerging Contractors training. However, they (DPW) are not a training authority. Construction and Education Training Authority (CETA) organizes and administers training programmes for emerging contractors. CETA decides on the type and duration of training and the Public Works Department simple forward Contractors to these training programmes. Training is provided on adhoc basis and depends on what CETA has in store for Contractors. All Emerging Contractors interviewed said they have not had an opportunity to participate in training programmes organized by DPW. Even, housing officials are not aware of the training that DPW and CETA organize for Contractors. Officials felt that housing programmes require mentorship type of training for Contractors. Housing Department has never organized any training for Contractors either. This is not part of their mandate. However, if housing officials knew about DPW Initiatives, they would have informed Contractors who require training.

In the Housing Department, working with inexperienced Contractors becomes a problem of Consultants, and they individually, have to design strategies which at the end result in producing acceptable and desired outcomes. Consultants, in different projects, came up with different strategies to address Contractors weaknesses. In one of the unbundled projects, a mentor was appointed to assist Contractors. He organized surety, negotiated credit with material suppliers and organized health and safety workshops for Contractors. He received payment from Contractors for his services. As much as, this arrangement was beneficial for the project, Contractors perceive it as an additional expense on their budgets and a reason for their inability to make profits. In other projects, additional Site Managers were appointed to assist Contractors. Even within housing department, strategies to address Contractor's shortcomings, is done at individual project basis.

4.4.7 Health and Safety in Housing Projects

Information collected from Emerging Contractors indicates that they do not provide uniform for their workers. All fourteen Contractors said workers prefer to bring own uniform instead of having uniform expenses deducted from wages. The researcher noticed that workers do not wear uniform, they wear own clothes. Only four Emerging Contractors said they provide safety gears for their employees. Consultants said, Emerging Contractors poor cash flow management make expenditure on safety equipment of secondary importance. In other cases, Emerging Contractors are not trained on OHS Act and Construction Regulations. One of the Emerging Contractors confirmed that they are not informed about new act and laws they need to be implemented. They get to know about new legislation when they bid for tenders. For example, from November 2005, Contractors who are not registered with CIDB will not be allowed to respond to tenders. The common practice is that, Contractors get to know about new laws when they are implemented. Apparently, CIDB has done a good job in reaching out to Contractors. All interviewed Contractors know about CIDB requirements, though they have not registered as yet.

A CIDB Official confirmed in the interview that not only do Emerging Contractors provide uniform and safety gears to their workers. He said that facilities, such as, ablution facilities and bathrooms are not provided in the construction site. In other cases, one ablution facility is used by twenty employees. Women now work as labourers in the construction industry, however, facilities for women are not provided. There are no medical kits and condoms on site. The transport is not provided, people are transported by bakkies. Construction Industry has a primitive culture and dirty appearance. There is no respect for people and workers are abused. There are no resources or offices where people can apply for work. Lastly, personnel do not receive training on safety and security issues. Emerging Contractors said that they only received training about safety issues after an accident that took place in one of the housing projects. They assigned one personnel to receive training on health and safety issues, and ever since they have medical kit on site. However, not all Emerging Contractors respond to safety issues in this way.

4.4.8 Information Dissemination

Only five Contractors (40%) said they are members of Contractors Associations. Nine Contractors (60%) are not part of Associations and they do not know that Contractors Associations exist. The limited role of Contractor Associations creates problems. For instance, if new legislations are passed, and workshops or training is organized, it does not reach Contractors. Associations do not play a role of disseminating information. A Public Works Official said, they reach Emerging Contractors through distributing pamphlets and posters in Regional offices. He agreed that there is no communication strategy which informs Contractors about available training etc. He further said that, as much as, Contractors Associations exist, but there is less interaction between the Department of Public Works and these Associations. Contractors Associations are not properly organized because they are not known by Contractors and few Contractors are members of these Associations. The Contractor Training Programme of the Public Works Department also plays a role of dispute resolution for Contractors. This activity should be handled by Contractor Associations. The researcher was not able get Contractors Associations point of view on the issue.

When asked about CIDB registration, all Contractors said they know about CIDB. Ten Contractors (70%) said they have attended CIDB workshops and that they got information from newspapers. However, only two Contractors (10%) said they have registered with CIDB. This is again another proof that, Contractors Associations are not visible or play a limited role. CIDB indicated that the method of advertising tenders in the newspapers is expensive for Contractors. Before paying a professional to prepare tender documents, Contractors spend money on newspapers. Contractors buy an average of five newspaper per day, to search for tender adverts. This results to waste of time and money. CIDB therefore, is planning to provide I-Tender service. This service will publish all tenders on the website. Contractors who have no access to internet will receive information through cellular message service. CIDB will also provide a platform for interaction among Contractors, through the data base, Contractors will be able to communicate. Another problem that is experienced by Contractors is that there is little communication between them and material suppliers. As and when they submit tenders, they have to run around meeting with different suppliers to get material prices. There is no central place where Contractors receive updates on prices by material suppliers.

4.4.9 Expanded Public Works Programme

None of the Emerging Contractors interviewed are participants in the Expanded Public Works Programme. Eleven interviewed Contractors do not know what EPWP is. The DPW Official explained that EPWP is currently being rolled out. He further said that few Contractors are already engaged in the process. About 1800 people are currently receiving training on EPWP.

Table 5 Contractor's Knowledge of Expanded Public Works Programme.

Knowledge of EPWP	Number of Respondents	Percentage
Yes	11	80%
No	3	20%
Total	14	100%

Table 5 shows that 80% of Emerging Contractors do not know about EPWP. All fourteen Contractors are not participants in the EPWP Programme.

Emerging Contractors receive training on labour intensive methods for a period of two years. Within the two years, they receive classroom and practical training. Public Works Department is responsible for information dissemination, selection and appointment of participants in the EPWP training programme. Selection of Emerging Contractors is based on entry assessment written examination and financial status of Contractors. Contractors who are bad debtors are excluded from participating. When asked about how information is disseminated to Emerging Contractors, Public Works Official, said they organize workshops for stakeholders, these include the government employees from National, Provincial and Local Government. This information was confirmed by the City of Johannesburg Housing Officials and their Consultants who all said, they have been workshopped on EPWP. Media, that is, different radio stations, newspapers, road shows with Politicians from different Provinces are instruments and tools that are used to disseminate information to reach out to all Emerging Contractors in the country.

4.4.10 Construction Supervisors and Housing Officials

All fourteen Emerging Contractors expressed that they have not experienced any problems in working with Consultants. However, there were concerns that Site Managers should be available on site at all times. Contractors said, in some instances, they do not work under supervision, they complete tasks and Supervisors come later to check for faults. As a result, they waste material in rework. Another issue that was highlighted as problematic for Contractors is that payment certificates that are issued by Supervisors are complicated. They are not able see if all expenses are accounted in payment certificates. Also, submission of payment certificates to Supervisors, especially the time it take to get approval or processing by Supervisors contribute to delays and late payments to Contractors.

Housing Officials were regarded as of assistance to Contractors especially when they require Cessions. The only problems that were highlighted with housing officials are their instability. Contractors said, the management structure in the housing department changes all the time. This creates problems of continuity for housing projects. Consultants shared a similar view with Contractors. They further said that regular changes in the department structure create instability and limited opportunities for officials to grow within the department. Consultants said, the absence of technical staff within the department contribute to problems of delay.

4.5.1 Conclusion

Research Findings have been discussed in this chapter. Information collected from Emerging Contractors, Supervisors, Housing Officials, Public Works Officials, CIDB Officials and Bank Managers has been discussed. A series of interviews were undertaken with different stakeholders and results are explained in this chapter. Research analysis and conclusions are discussed in the next chapter.

Chapter 5 Conclusions and Recommendations

5.1 Introduction

This section discusses the research analysis in details. Data analysis objective is to find out if the findings answer the research questions asked in the first chapter. Conclusions and Recommendations are based on the research findings.

5.2 Delays in Housing Projects

The research revealed that a major obstacle in housing programme implementation involves a variety of issues. Bureaucracy and red tape in the planning process, such as, the approval of the layouts and general plans and environmental impact assessment is a long process that consumes a lot of time. Another cause for delay in housing project is linked to the complications associated with funding approval from the Provincial Department. Poor planning and budgeting is a major problem and cause major delays. Budgeting processes within the department were not administered properly. This was also due to lack or absence of financial experts within the department. However, appointment of financial experts has resulted to improved service. Because financial planning was given less attention, funding approvals from Province were delayed. As a result, some projects are currently being implemented without approved funding agreements.

Tender process proved to be another reason for delay in projects. Both Housing Officials and Consultants agree that the involvement of politicians in the procurement process delays projects and results to re-tendering. In the Housing Department, a decision about unbundling is not made during the planning process. Consultants are informed to unbundle projects during the tender selection and award stage. This required them to redesign the project and redo tender documents and specifications. These processes are an additional cost to the project, in terms of time and resources and result in implementation delays. It is acknowledged that the New Public Finance Act has dramatically changed the procurement process. Acquisition Committees (a team of senior local government officials) are now responsible for tender selection and award. This responsibility, has been removed from the politicians. Procurement Officials, Housing Officials and Housing Consultants agree that the changes in the procurement system have made the tender process simple, easy and quick. Another challenge on the issue of tenders is the reality that Emerging Contractors apply for construction jobs in large numbers. Construction Industry Development Board Contractor registration and grading will address this problem. Strategies that are being implemented are a sign that the problems have been identified and the government is committed to address them. According to CIDB Official, data collected to date indicate that a majority of Contractors are in the grade 1 to grade 4 categories. Contractors in these grades are able to execute construction work in the value of 100 000 rands to 4 million rands. Support for Contractors to achieve grade 9 level remains a challenge.

5.3 Obstacles in Engaging Emerging Contractors

The research has proven that Emerging Contractors are not the only course of delay in projects. However, issues such as, inability to raise capital, inability to secure credit, lack of financial and cash flow management, dependence on project payment, lack of contract and project management tools and expertise, absence of technical personnel in their businesses and IT systems in project management leads to poor workmanship and project delays. In contrast, Emerging Contractors with sufficient capital, firstly start their projects on schedule, they do not have surety and insurance problems. Secondly, they do not have plant and material supply problems. Lastly, they are able to finish the project quickly because they do not depend on project payment. Access to capital makes cash flow manageable. Evidence shows that Housing Projects undertaken by this type of Contractors are finished on time sometimes earlier than the stipulated period. It is therefore clear that Emerging Contractors need assistance in the form of finance and mentorship in order to deliver housing projects on time. The research discovered that in South Africa, like Housing, all government departments have experienced problems whilst engaging Emerging Contractors. Training and Mentorship are basic needs, and are similar across departments. However, each department responds to these issues individually. As a result, there are many Contractor training programmes provided by different Institutions. These training programmes are sometimes offered without mentorship or on the job training, a requirement in the housing programmes. In many instances, training provided is a one size fits all type of training. As a result, training does not address the training needs required by Emerging Contractors. Moreover, it is common knowledge that Emerging Contractors lack business and financial skills, however, such skills are not yet incorporated in the secondary and tertiary education syllabus (Meyer-Stammer 2003, pg 7-8).

There are many disputes and abuse in the construction sector between Emerging Contractors and Sub-Contractors, Contractors and labourer's. Other disputes and disagreements are experienced between Emerging and Established Contractors who are in joint venture partnerships. However, there is no Institution or Government Body, other than the Court of Justice, that is responsible for settling disputes. Court processes take long, and they are inappropriate for minor disputes. CIDB set the rules for the construction sector. Code of Conduct has been published for all stakeholders in the sector. However, enforcement and assessment of the regulation is not monitored. Currently enforcement depends on good will. Rules need to be enforced and CIDB needs to provide an environment for stakeholders i.e. Contractors, Consultants, Clients and labourers to report their dissatisfaction.

5.4 Benefits or Potential of Engaging Emerging Contractors

Since South Africa is a country in transition, it is ideal to give opportunities to previously disadvantaged people. Other Emerging Contractors have developed to reputable businessman/woman, and they contribute to the economy of the country. They have also created employment for both local communities and experts in the construction sector. Housing Projects provide a foundation for learning and acquiring skills. Creation and promotion of small businesses is part of the South African Government Economic Policy and Strategy to create employment and promote economic growth. It is an investment for the country, because it will assist the government in the long run, to address housing and services backlog. Creating or developing Contractors, will reduce South Africa's dependence on foreign companies.

5.5 Mechanisms to Assist Emerging Contractors

The implementation of the Expanded Public Works Programme will provide training opportunities for Emerging Contractors. Integration of EPWP and CIDB Registration will provide bases for integration and co-ordination of government activities. EPWP will therefore, provide opportunity for information sharing and integration among different government officials. The registration of Contractors by CIDB is a good initiative that will reduce the free and easy entry in the Contracting business. It will therefore be easy to identify Emerging Contractors with potential and those that require training. The registration and the website that are generated for Contractors will provide a dating service and they will save money spent on newspapers. Problems associated with workflow, continuity and sustainability will be addressed easily. For example, Contractors who require partners or sub contractors will use a CIDB data base. It will be easy to identify Contractors who require training, and those who are not committed in the industry will be discouraged. Established Contractors are already receiving support from the National Trade and Industry Department to enable them to acquire contracts from international markets.

5.6 Recommendations

It can be concluded that there are advantages and disadvantages in engaging Emerging Contractors in housing projects. Over and above the initiatives that have been initiated, there is need to focus attention on training. Training will benefit both Emerging Contractors and Clients. The easy and quick way to implement this is to incorporate training costs on the tender. EPWP is a good Contractor training strategy. Participation in EPWP needs to be extended to young professionals. Currently, the construction sector has mature people. Emerging Contractors and Housing Officials interviewed were in the age between 40 to 50. This indicates that, when this group retires, the construction sector will experience skills shortage. Addressing issues, such as, appearance and primitive culture of the construction sector is long overdue. Good working conditions will attract more women and young people.

Initiatives by CIDB are recognized. All that is required is for CIDB to provide dispute resolution centre in all provinces in South Africa. CIDB can play a leading role in the formation and management of this Centre. The responsibilities of Dispute Centre can be incorporated with the enforcement and assessment of the Code of Conduct. Contractors Associations do not play a significant role. Apparently, there are no benefits associated with being a member of Contractors Associations. Many Contractors are not part and do not know that Contractor Associations exist. There is also no relationship between Government Departments and the Contractors Associations. The end result is that when government changes regulations, nobody takes the responsibility to inform Contractors. Support and capacity should be given to Contractors Associations to enable them to perform better.

Procurement issues and delays have been addressed, by the New Public Finance Act and benefits have been reaped because the system is transparent and efficient. However, the issue of tender award based on low tender price remains an issue. As much as, banks have to design flexible lending systems to accommodate Emerging Contractors, there is need to educate small entrepreneurs about the obligations associated with acquiring and repayment of bank loans.

Government Departments who deal with infrastructure projects, like the Department of Housing need to have in-house technical personnel. Moreover, Officials need to receive update on new project management and contract management trends. Newly appointed staff needs to be trained on Municipal procedures. There is need to assess how red tape and bureaucracy can be shortened in the planning process. One of the reasons, poor people invade vacant land, is because low cost development is not included in City Plans. Development in the invaded area is not planned or sometimes not suitable for housing development, as a result, planning approvals take long periods and the implementation is delayed. There is need to improve planning processes on low cost housing development.

5.7 Limitations of the Research

The limitation in this study is as follows;

- Field work was time consuming and time allocated was very short.
- There was not enough time to do interviews with CETA. Information collected from Public Works Contractor Training Programme indicates that CETA is responsible for training Contractors. It would have been interesting for the study to unpack the type of training offered, the training duration, payment for the service rendered and the selection criteria for Contractors and information dissemination about the service to Contractors.
- Interview with CIDB official indicated that the Department of Trade and Industry works with Contractors, they offer business and marketing support to Contractors who want to be engaged in foreign Contracting business in Africa. It would have been interesting to know what type of assistance and which Contractors have benefited from this initiative to date.
- The time allocated to conduct research made it impossible for the Researcher to investigate and learn about the Contractor problems in developed countries. Comparing developed and developing countries could have made the study interesting. The comparison will have provided an opportunity to learn different strategies in addressing Contractor challenges.
- The researcher was not able to interview Contractors Associations to get their point of view on the issues affecting Emerging Contractors.

5.8 Future Research

There is need to do research to unpack the obstacles and challenges that cause bureaucracy and red tape and ways of reducing red tape in planning processes.

Bibliography

ABSA Bank, South Africa, <http://www.absa.co.za>

Amond, S, Thatcher P and Mabuntana L, (2002) Creating an Enabling Environment for Economic Development: Accelerated Delivery Through Best Practices for Payment, Paper Presented at the Built Environment Professions Conventions, Johannesburg, South Africa.

Construction Industry Development Board (2005) Towards a Sustainable Contractor Development: Towards a common framework for enterprise growth and sustainability, Working Paper.

Construction Industry Development Board, (2004) Synthesis review on the South African Construction Industry and its Development, Discussion Document.

Construction Industry Development Board, Best Practice Guide: Construction Contracts, 2nd Edition, August 2004.

Construction Industry Development Board, Code of Conduct for all parties engaged in construction procurement, October 2003.

Construction Industry Development Board, Best Practice Guidelines: Subcontracting Arrangements, 1st Edition, March 2004

Construction Industry Development Board, Construction Registers Service: Promoting an enabling development framework,

Department of Public Works, (2004) Guidelines for the Implementation of Labour Intensive Projects under the Expanded Public Works Programme (EPWP), <http://www.publicworks.gov.za>.

Datta M, (2000) Challenges Facing the Construction Industry in Developing Countries, paper presented at the Construction Industry Development Conference, Gaborone, Botswana.

Expanded Public Works Programme, <http://www.epwp.gov.za>

First National Bank, South Africa, <http://www.fnb.co.za>

Gasa B, Barnes D, Nqaleni M and Hodgson S, (2002) Improving Public Sector Delivery Management in South Africa, paper presented at the Built Environment Professions Conventions, Johannesburg, South Africa.

Lund Institute of Technology, (2003) Construction Economics and Organisation, 3rd Nordic Conference on Construction Economics and Organisation.

Materu S, (2000) Towards Sustainable Local Contracting capacity-CRB Approach, paper presented at the Construction Industry Development Conference in Gaborone, Botswana.

Meyer-Stamer J, (2003) The Hexagon of Local Economic Development and LED in South Africa, Mesopartner Working Paper.

Meyer-Stamer J, (2003) Stimulating Rural Enterprise in South Africa: Lessons from Local Economic Development, paper presented at the Conference on Stimulating Rural Enterprise, Kempton Park Johannesburg, South Africa.

Meyer-Stamer J, (2003) Why is Local Economic Development so difficult, and what can we do to make it more effective?, Mesopartner Working Paper.

Murray M and Appiah-Baiden, (2002) Difficulties facing Contractors from Developing Countries: Problems and Solutions, University of Witwatersrand, Johannesburg, South Africa.

Nordberg R, Building Sustainable Cities. Habitat Debate, Vol 5 No2, www.unhabitat.org/HD/hdv5n2/intro.htm.

Ofori G, (2000) Challenges of Construction Industries in Developing Countries: Lessons from various countries, paper presented at the Construction Industry Development Conference in Gaborone, Botswana.

Palalani K, (2000) Challenges Facing the Construction Industry: A Botswana Perspective, paper presented at Construction Industry Conference, Gaborone, Botswana.

Pautz M, Watermeyer R and Jacquet A (2002) Public Construction procurement in a global economy, paper presented at the Built Environment Professions Conventions, Johannesburg, South Africa.

Press Release, President Thabo Mbeki launches the Expanded Public Work Programme (EPWP) 1 May 2004 <http://www.publicworks.gov.za/pressreleases/>

Press Release, EPWP as a chance for private sector to fight unemployment 26 November 2004, <http://www.publicworks.gov.za/pressreleases/>

Rwelamila P.D, (200) Factors Associated with Insolvencies amongst Civil Engineering Construction Firms in South Africa, paper presented at Construction Industry Conference, Gaborone, Botswana.

Ssegawa J K, (2000) Prevalent Financial Management Practices by Small and Medium Construction Firms (CFs) in Botswana, paper presented at Construction Industry Conference, Gaborone, Botswana.

South African National Housing Policy, <http://www.housing.gov.za>

Speech by Minister of Public Works, Ms Stella Sigcau, Launch of the Expanded Public Works Programme, 18 May 2004

Standard Bank, South Africa, <http://www.standardbank.co.za>

Star Newspaper, South African Newspaper, May 2004.

Van der Meer and W. van Winden (2003), E-Governance in cities: A comparison of urban ICT policies in *Regional Studies*, vol 37.No 4 pp. 407 – 419.

Zawdie G and Langford D A, (2000) *The state of Construction in Infrastructure in Sub-Saharan Africa and Strategies for a Sustainable Way Forward*, paper presented at Construction Industry Conference, Gaborone, Botswana.

APPENDIXES

LIST OF RESPONDENTS

Organisation	No. of Interviewees	Job Title of Respondent
Housing Dept	2	Deputy Director
	2	Assistant Directors
	8	Internal Project Managers
Procurement Dept	1	Deputy Director
Public Works Dept	1	Director (EPWP Programme)
Public Works Dept	1	Deputy Director (Training)
CIDB	1	Programme Coordinator
Financial Institutions	3	Financial Consultants
Consultants	2	Bigen Africa
	1	DNMZ
	1	Urban Dynamics
	1	Marobeni
Emerging Contractors	14	

RESEARCH QUESTIONS

A. Emerging Contractors - Questionnaire

General

When did you start Contracting business? Year

How many people own the Company?

a. one b. two c. three d. other, specify -----

Tick the appropriate, are you

a. male b. female

What were you doing before you start a Company?

Did you work in the Construction Industry before? Yes or No

How long did you work in construction? Number of years -----

What was your job or position?

What is your highest standard of education?

Did you do any studies related to construction? Yes/No

If yes, in which Institution?

What subject did you do?

When did you start to work with housing projects? Year

What type of project are you working on?

a. settlement upgrading, b. hostels. C. PhP d. Other, specify -----

1. Workflow and Procurement

Did you receive any assistance in responding to tender documents? Yes/No

If yes, what kind of assistance did you receive?

(a) filling in the tender document (b) calculating quantities (c) other, specify -----

When was your tender submission deadline? Month and Year

When did you receive your appointment letter? Month and Year

Was your tender validity period extended? Yes/No

How long was it extended?

(a) one month (b) two months (c) three months (d) other -----

What were the reasons for extension? Explain -----

Did you make or will you make profits on this job? Yes/No

If yes, how much profit from the total works?

(a) 5% (b) 10% (c) 20% (d) 30% (e) other, specify -----

If no, why? -----

On completion of this job, do have another job lined up for you? Yes/No

If yes, same or different Client?

If no, why?

Have you had a time lapse before getting another contract? Yes/No

If yes, how long, a. one month b. two months c. three months, d. other, specify -----

Do you think that work flow is a problem for Contractors? Yes or No

How should this problem be solved? Explain -----

2. Training and Mentorship EPWP, CIDB, Registers

Did you participate in training or mentorship programme ? Yes/No

If yes, what kind of training did you receive?

Which institution provided training?

If no, why?

Have you received mentorship from Expanded Public Works Programme? Yes/No

Do you require any training? Yes/No

What type of training do you require? Explain-----

Do you know about Construction Industry Development Board? Yes/No

Did you attend their workshop or seminar? Yes/No

If no, why? Explain

Have you registered in the CIDB Contractors Register, Yes/No

If no, why?

3. Finance

Did you have own money to start the project? Yes/No

If no, who financed the project?

Which financial institutions did you approach?

Which financial institution provided surety? name

How long did it take to acquire surety?

A. weeks B. one month C. two months D. other, specify-----

Did you start the project on schedule? Yes or No

If no, how long were you late?

A. two weeks B. one month C. two months D. other, specify -----

Why did you start late? Explain

Did you get credit from material suppliers? Yes/No

If yes why?

If no why?

Did you get discounts from material suppliers?

Did you experience problems with material suppliers? Yes/No

If yes, what problems were these?

Did you use local material suppliers? Yes/No

If yes, why?

If no, why?

Did you use Cessions? Yes/No

If yes, what were the benefits of Cessions? Explain

Will you use Cessions in the future?

If no, why?

4. Delayed Payments

Were your payments received on time? Yes/No

If no, how long were they delayed?

A. five days B. two weeks C. one months D. other, specify -----

Did the delay of payments cause any problems for you? Yes/No

If yes, what problems were these? State them!

What do you think should be improved in the payment process? Explain

5. Health and Safety

Have you ever had an accident on site? Yes/No

Who was injured?

a. labour b. community person c. other, specify -----

What was the cause of the accident?

Do you provide safety gears for your workers? Yes/No

If no, why?

Do you know about the 2003 regulations on Occupational Health and Safety Act?

6. Supervisors

Do you have partnerships with experienced Contractors? Yes/No

If yes, who is your partner?

If no, why?

Did you experience any problems with Construction Supervisors? Yes/No

If yes, what problems? Explain

How do you solve these problems?

Have you experienced problems with housing officials? Yes/No

If yes, state them?

How did you solve them?

B. Construction Supervisors and Site Managers - Questionnaire
General

What is your work activity in the project? Tick the appropriate box

A. Professional Engineer B. Engineers Assistant C. Site Engineer

Which type of housing projects do you supervise?

A. Settlement upgrading B. PhP C. Hostels D. Other, specify-----

When did you start to work with the Housing Department? Year

How many housing projects have you supervised to date?

Have you been involved in the short listing and selecting Contractors in the tender process?

Yes/No

If yes, what method did you use?

If no, who selected the Contractors?

Was there any delay in the award of tenders? Yes/No

If yes, how long was the delay?

What caused the delay in the tender award? state reasons

Was the tender validity period extended? Yes/No

How long was it extended?

A. two weeks B. one month C. two months D. other, specify-----

Was a tender re-advertised? Yes/No

If yes, what was the reason for re-tendering? Explain

Do you think that the tender process contribute to implementation delays? Yes /No

What do you think needs to be changed in the procurement process? Explain

Emerging Contractors

Have you supervised Emerging Contractors in housing projects?

Did Contractors start construction work on schedule? Yes/No

If no, what was the reason for late start? Explain-----

Contractors who start late, are they given extension? Yes/No

Who grants the extension? A. Housing Department B. Consultant C. Other, specify

What implications does extension of time for Contractors have on Consultants? Explain!

In cases where, Contractors do not finish on time, do Consultants receive payments for extra months? Yes/No

If yes, who pays Consultants?

If no, do Consultants stop work on site? Explain

Is the additional work incorporated in the Consultants Contracts?

Have you receive additional amount for supervising more Emerging Contractors on unbundled projects? Yes/No

Do emerging contractors perform like other Contractors? Yes/No

If no, what is the difference?

What do you think Emerging Contractors need to improve their business? Explain

Have you experienced any problems in supervising Emerging Contractors? Yes/No

If yes, state them!

How should these problems be solved? Explain

What problems do Emerging Contractors have in executing Construction Works? State these problems-----

How should these problems be solved? Explain

What kind of training do you think Emerging Contractors require? Explain

Are Contractors on your projects paid on time? Yes/No

If no, how long were payments delayed?

Did Consultants receive their payments on time? Yes/No

If no, how long were payments delayed?

What problems did late payments cause for Consultants? Explain

Did you have accidents on site? Yes/No

If yes, what caused accidents?

Do Emerging Contractor's, provide safety gear to their workers? Yes/No

If no, why?

Have you supervised Contractors who partner with experienced Contractors? Yes/No

Have you worked with Women Contractors in COJ housing projects?

Housing Officials

Have you experienced any problems in working with housing officials? Yes/No

If yes, what were these problems, state them!

Any suggestions on how these problems can be solved? Explain

Have you experienced any problems with the Housing Department? Yes/No

If yes, what problems were these? Explain

Any suggestions on how these problems can be prevented in the future? Explain

Do you know about Expanded Public Works Programme?

Have you attended any seminar or workshop on Expanded Public Works Programme

Are you aware of the Construction Industry Development Board activities?

C. Department of Housing Officials - Questionnaire

Emerging Contractors

Do you work with Emerging Contractors in the housing projects?
What are the benefits of working with Emerging Contractors? Explain
What are the disadvantages of working with Emerging Contractors? Explain
Do delays occur in housing projects? Yes / No
What causes them? Explain
Do you think that Emerging Contractors contribute to project delays? Yes/No
If yes, how do they delay implementation?
In your opinion, how will delays in housing delivery be prevented?
Have you experienced any problems with projects that are implemented by Emerging Contractors? Yes/No
If yes, what problems did you experience?
How should such problems be solved in the future?
What do you think can improve Emerging Contractors performance? Explain

Procurement System

Has any of your projects been re- tendered? Yes/No
If yes, what was the reason?
Has validity period extension been granted any of your projects? Yes/No
If yes, what were the reasons?

Personal

What is your age? Tick appropriate
A. 20-30 years B. 31-40 years C. 41-50 years D. 51-60 years E. +61yrs
What is your highest standard of education? Tick appropriate
A. Matric B. Technikon Certificate C. University Degree D. Other, specify ----
What is your area of study? Tick appropriate
A. Engineering & Building B. Project Management C. Planning & Development D. Administration E. Other, specify -----
Have you undertaken any additional courses? Tick appropriate
a. Computers b. Communication c. Project Management d. Other, specify -----
What is your job activities/description? Tick appropriate
A. Project Manager B. Assistant Director C. Deputy Director D. Director
Is your formal training directly related to your current work? Yes/ No
What would you like to learn to help you do your job more easily? Explain
How long have you worked in housing project implementation? Years
What was your job description before joining project implementation?
Have you received training in your current job? Yes/No
If yes, what type of training did you receive?
Do you require training in your current job?
What kind of training do you think you require? Explain
Do you know about the Expanded Public Works Programme? Yes/No
Have you attended any seminar or workshop about the Expanded Public Works Programme?
Do you know about the Construction Industry Development Board? Yes/No
Have you attended any of their seminars or workshops? Yes/No

D. COJ Procurement Officials – Personal Interview

Do you deal with tender adjudication process?
What are your responsibilities?
Do you deal with all COJ departments?
Working with all departments does not lead to overload for Procurement Department?
How long does the procurement process last?
Do you think that procurement system is long?
What selection criteria do you use in awarding tenders?
In your opinion, what are the problems of the procurement process?
Any suggestions on how these problems can be solved?

E. Department of Public Works Officials - Personal Interview

Were different government departments involved in the drafting of guidelines of the EPWP?
Which government departments were involved in the inception of EPWP?
Were local government officials involved?
How were they consulted?
Is Public Works Department responsible for conducting seminars?
Who or which department has received workshops or seminars in Gauteng?
Have you conducted workshops for Local Governments?
Have you conducted any seminars or workshops with the COJ Department of Housing?
How do you disseminate information about EPWP to Professional Consultants?
Have you trained any Contractors in the housing projects?
How do you choose Contractors to train?
Who is responsible for the assessment of the Expanded Public Works Programme?
How is the assessment and evaluation monitored?
Do you have success stories about EPWP?

F. Construction Industry Development Board Officials – Personal Interview

Do Emerging Contractors know about CIDB?
How do you disseminate information to Emerging Contractor's?
Do you provide any assistance to Emerging Contractors?
Have Contractors from Johannesburg registered on your registers?
Do Emerging Contractors know about code of conduct and Best Practice guidelines?
Have you received any complaints about stakeholders not adhering to the code of conduct?
How did you discover them?
Have you penalized any person's or companies?
Do you have personnel within CIDB that is responsible for dealing with complaints and reports about irregularities in the industry?
Do you have dispute resolution expertise within CIDB?

Did Emerging Contractors participate in the 2005 National workshop that you organized?
How did they know about the national workshop?
Are there Emerging Contractor training and mentorship programmes in the City of Johannesburg?

Do Officials from government departments know about CIDB activities?
Do you work with Officials from Local Government?
Other than Public Works, do other government departments know about Project Registration?
Have projects registration started?
How many government department and local government departments have registered in Gauteng Province?
What do you think are challenges faced by Emerging Contractors in Construction?
Any suggestions on how these problems can be solved?

G. National Department of Public Works Contractor Training Programme Officials – Personal Interview

Do you provide training to Emerging Contractors?
How do you choose or select the Emerging Contractors?
What type of training do you provide?
How long does the training last?
What are the costs of training programme?
Who pays for the training programme?
Are you able to monitor and evaluate Emerging Contractors on completion of training programme?
Do you make follow up with trained Contractors, to observe their performance?
What problems or obstacles do Emerging Contractors have?
In your opinion, how will these problems be solved?
What problems do you experience as Trainers?
Any suggestions on how these problems can be solved?

H. Financial Institutions Managers – Personal Interviews

Do you lend to the Construction sector?
How much in percentage have you lended this year?
Have you provided any surety or insurance to Emerging Contractors?
How many Emerging Contractors have received finance from your Institution?
How long does it take to process surety or insurance application?
What are the requirements that enable applicants to qualify for surety?
On approval of surety or insurance, what conditions are attached?
What happens if the Contractor does not finish the job or become insolvent?