Cultural aspects of Construction Project Management practices

A Uganda perspective

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Stockholm 2014

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Master of Science thesis

Title: Cultural aspects of Construction Project Management practices – a Ugandan perspective

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Master Thesis number: 303

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Keywords: Uganda, construction management

Abstract

Africa is experiencing a rapid urbanisation and the major cities of the continent are currently the fastest growing cities in the world. This phenomenon is especially visible in Kampala, Uganda; which is one of the fastest growing cities in Africa. The rapid development, with people moving from rural to the urban areas, poses new challenges and opportunities for the construction sector which has become the second largest employer in Uganda. However, the construction sector is still young and developing. To contribute to the development of the sector, this thesis set out to be a study of construction project management practices in the country. Field studies were conducted in Kampala to explore the current practices of project managers active in the construction industry. The findings from the field studies where later analysed and compared with secondary data collected on Western construction management practices.

Project management is a well standardised practice that has established itself as a vital component of construction projects in the Western part of the world. The theories and practices mostly originate from USA and the U.K and rely on stable settings of social environment, politics and economy. Standards are accepted and followed by the majority of practitioners in the Western part of the world. However, if these theories are valid and applicable in Africa has been questioned. Therefore, the research aimed towards finding how Western theories and practices of construction management have been adapted by the Ugandan industry. Furthermore, study whether the practices of Ugandan managers could be improved with implementation of Western construction management methods.

The study found that the profession of project management in the Ugandan construction industry are relatively new but is getting more and more established and appreciated. The mentality within the construction sector is, to a wide extent, orientated towards short term benefits. Clients’ interests in maximising short term profits often result in quality issues. This correlates with the troublesome past of Uganda and the scattered poverty; people are trying in any way to make as much money as possible. The issue involves a large scale of corruption in the construction industry, where even governmental officials are involved. The construction sector has problems regarding lacking competence of actors. Combined, these issues are affecting the quality outcomes of projects and make them difficult to manage. Western construction management theories and practices are adapted by Ugandan managers, however, to a minimal extent in terms of complexity to fit, what is believed to be, the development level of the industry. Actors are micromanaged with a task-oriented mentality and separated though hierarchic boundaries. Projects are divided between several actors usually completing their part individually which lead to inconsistencies and managerial problems.
We believe there is urgent need of education within professions in the industry in order to raise the
overall competence. Regulations and standardisations regarding construction and employment
policies need to be implemented starting from government level. Actors need to co-operate, learn
from each other and grow together.
**Acknowledgement**

We would like to thank;

Tina Karrbom Gustavsson, supervisor at the Royal Institute of Technology, for believing in our research proposal and supporting us with valuable advice and trust in the process of creating this thesis.

Fredrick Omolo, supervisor at Makerere University, for welcoming us to Uganda and supporting us with valuable advice, without you this would not have been possible.

SIDA, Swedish International Development Cooperation Agency, for funding the research and believing in the importance of studying African managerial practices.

Further a special thanks to all the participants in the study and others assisting us during our stay in Uganda.

Yours sincerely,

Erik Nikkanen Almén and Sahand Kohnechian
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1 INTRODUCTION

1.1 BACKGROUND

*The United Nations* reports that a majority of the world’s population now lives in cities (UN-Habitat, 2013). The urbanisation process, where a country’s population shifts from living in a rural to an urban area, happened a long time ago in the industrialised part of the world. However, in developing countries where most of the population still live in rural areas, the migration to the cities is faster than ever. This phenomenon is especially visible in Africa and can be demonstrated by the fact that that in 2009 almost 40% of the one billion population lived in urban areas. It is estimated that by 2050 the population will increase to two billion and 60% of them will live in urban areas (UN-Habitat, 2010). Already by 2025, it is predicted that the urban population of Africa will outgrow both Europe and Latin America. The results gained from already developed countries are that urbanisation combined with efficient public policies contributes to higher incomes and better living standards. However, Africa’s urbanisation process must be handled with care to prevent risks of urban inequality. Urban planning and building regulations should be adapted to the level of national development with regards to the institutional capacities. Implementation of realistic construction standards enhance housing opportunities and livelihood instead of restricting it (UN-Habitat, 2013).

When looking upon the development in terms of construction, it is evident that cities, all over the continent, are rapidly growing. In 1950 only two African cities could count a population of more than one million, compared to 48 cities today. This rapid development is visible in Kampala, Uganda, which is one of the fastest growing cities in Africa and has grown in all directions during the last two decades. The urbanisation process of Uganda contributes to a number of challenges in Kampala such as inadequate infrastructure and expansion of slum areas that now covers 21% of the city area (Vermeiren, et al., 2012). However, the process also contributes to opportunities for the construction sector as the number of construction projects are increasing in the capital. These opportunities have led to a booming construction industry making it, after agriculture, the second largest employer and a major contributor to the economic recovery of the country attracting both domestic and international companies (Otim, et al., 2008).

Generally, in many African sectors, including the construction sector, theorists and practitioners are adapting different routines and concepts from Western countries. In some cases this is a successful method, however, when dealing with managerial approaches and concepts, the values of the local actors and the social setting needs to be put in context. The common belief that Western management theories are applicable by everyone anywhere could therefore be false (Muriithi & Crawford, 2003). Concepts and approaches, and the theories needed to understand them may differ significantly from what is considered to be normal in the West, when comparing with African countries (Hofstede, 1992). In order to successfully contribute to the urbanisation process, managing and executing construction projects efficiently is vital.
1.2 Research Questions

- How, in terms of project management practices are construction projects being managed in the Ugandan construction industry?
- How are Western construction management theories and practices being adapted by construction project managers active in the Ugandan construction industry?
- How could construction project managers in Uganda improve their practices, with the aid of Western construction management theories and practices, in the Ugandan construction industry?

1.3 Aim

The aim of the study is to gain knowledge about Ugandan construction project management practices. The authors aim to explain how project managers, in general, operate in the Ugandan construction industry. The aim is to find similarities and differences between management practices between Ugandan and Western construction industries. The research aims to find project management theories and practices, not currently practiced in Uganda, which could be implemented in the Ugandan construction industry.

The findings from the study aim to contribute with knowledge for aiding development of construction project management practices in Uganda. The research is collaboration with Makerere University in Kampala; the findings and recommendations can be used by researchers in the field of construction management at the university and distributed to the Ugandan construction sector.

1.4 Method

The method of how the study was carried out will be explained under this chapter. This will give better understanding for the reader and classify the results of the thesis.

1.4.1 Approach

This thesis can be classified as an exploratory research, with a qualitative method, of known management practices in an, for us, unknown part of the world. The practices of construction management are well known in the construction industry of the western part of the world. During this research we took that known practice, which we have learned during university studies and as employees at construction companies, to Uganda and compared how the Ugandan construction industry implement project management practices. Following, that the Ugandan construction industry was unknown for us, there were no initial hypothesis or premises to draw conclusions from. This gave us the chance to be flexible and open to new information that we didn't know before conducting the field study in Uganda. Therefore, the process of conducting this thesis can be seen as deductive.

For the research we use two main categories of data; secondary and primary data. The secondary data is gathered through books, reports, scientific articles and web sites in order to find existing research within the field of project management in different cultures. Secondly, secondary data is used to present our theoretical framework of project management in the western part of the world. To collect the primary data, the used survey method is interviews conducted in Uganda during a two months field study in the capital, Kampala.
When the data is presented an analysing part will compare the secondary data, which we have as reference, with the primary data gathered in Uganda. We will also discuss and include our own thoughts and experiences gathered in Uganda to give a more transparent discussion.

1.4.2 Literature review and Theoretical framework
The literature review and the theoretical framework are based on the collected secondary data. The literature review is for presenting the already existing research on project management in different cultural environments, especially in Africa. The ambition when conducting the literature review is to find up to date information, since we believe that the subject of project management in Africa is a relatively new phenomenon. Therefore, the criteria is to have sources of information from at least the 21st century, besides when we believe the information is general and has not changed over time. The literature review provided us with knowledge in the area of project management in Africa before going to Uganda, which gained us advantage when conducting the research in Uganda.

During our time as students we have collected references, through coursework, literature, lectures and practical experiences of how project management is practiced in the Western construction industry. This is the theoretical framework we have used as reference of project management, when constructing interview questions and doing research in Uganda. To be clear in respect of the readers of this thesis, we will present a theoretical framework that mainly is our reference. The theoretical framework is used to compare and discuss the primary data collected in Uganda.

1.4.3 Interviews
The interview questions are the base of collecting primary data. The questions are based on the theoretical framework presented and go through the significant phases of a construction project. It is a large spectrum to cover but, as stated, the research is set to be exploratory, so to be able to concede different aspects of project management, this method will achieve its purpose. The focus when formulating questions is to create them as open-ended questions which will make way for the interviewee to talk more freely about, and around, the subjects and hopefully end up in revealing not so obvious information.

Project management practices are present at contractor and client level within a construction project (Hendrickson, 2008). Therefore, the research needed primary data from both consultants representing the client and contractors active in the production phase. Seven companies within different fields of the Ugandan construction industry were chosen in order to give the researcher a wide perspective of project management practices. The interviewees were found with the help of our supervisor at Makerere University and through contacts given from the interviewees. The interviews lasted for about one hour and were all recorded with a recording device. By recording there were no need for taking notes, besides additional thoughts, and we, as interviewers, could focus on the discussions. During the interviews we often made one of us responsible for asking the questions. However, the both of us were active in the discussion and we could help each other to get the most out of the interviewee. Often the interviews also ended up in discussion on topics not in our questions which gave us deeper knowledge of project management practices in the construction industry.
1.4.4 Analysis
The analysis part of the thesis is made to compare the primary data, secondary data and the authors' experiences, both from the field study in Uganda and Swedish construction industry. The section is a discussing part of the thesis where reflections are stated of the findings in the study. The reflections in the analysis part gives the reader an insight of the authors reflections and arguments which later forms the conclusion section in the thesis.

1.5 Limitations
The limitations in the thesis contribute to biases in the results of the study. First, the limitations are the information and theories in the secondary data. The data was gathered using mainly course literature and browsing the internet. We cannot exclude that by using this method for gathering secondary data, important sources of information might have been missed by us. Therefore, we generalise Western construction project management practices from the secondary data presented in the thesis and our personal and limited experience from the Swedish construction industry. Secondly, limitations of the study consist of the amount of interviews conducted in Uganda. Most of the interviews were conducted inside offices of the interviewees’ and we got limited access to practically observe Ugandan construction project management practices. As a result, we had to generalise from what the interviewees told us during interviews and the project managers might have given information that further led to creation of biases. It would have been beneficial to have more practical observations and a greater number of interviews in order to present a more holistic picture of Ugandan construction management practices. Further, we generalise organisations of several project managers active in the same project as the project manager.

1.6 Significance of Study
There is little research made on managerial problems in developing countries, Africa being almost absent compared to the huge numbers of research done in the USA. On the other hand, many developing countries are becoming active players in the international business environment (Lituchy, et al., 2012). Despite the recent Euro crises and the development slowdown in China, a number of Sub-Saharan African countries have managed to obtain a growing economy. Of Africa’s 48 countries, 22 have moved into a middle income status (The World Bank, 2012). However, according to The World Bank, Uganda is still labelled as a low income country (The World Bank, 2013). Despite being rich in natural resources it is considered being one of the poorest countries in the world. The country is finally, after years of civil war and economic mismanagement, in a state of recovery. The government has with the help of foreign aid increased investments in education and infrastructure development. These efforts are aimed to boost the Ugandan development and create better conditions for the fast growing population (Trading Economics, 2013). Uganda is putting a lot of weight on infrastructure since it is internationally proven that development in this field matters for economic growth (Uganda National Report, 2010).

This study aims to contribute to the research within the field of management in Africa and Uganda. Since the authors are civil engineering and management students, the focus will be on studying construction project manager behaviour in Kampala, Uganda. The findings from the research aim to benefit, both foreign and domestic, actors in the Ugandan construction market. In addition,
(McFarlin, et al., 1999) argues that to develop African management tools and techniques further, the need for considering approaches of management that better fit the local culture and customs is vital. This study highlights managerial techniques that are specific for Uganda and that could be used in research concerning African management. Further, the uncovered cultural attributes that affect managerial practices could influence leader behaviours in Uganda and the rest of sub-Saharan Africa.

2 LITERATURE REVIEW

Published research within the field of management tools and techniques in different cultural environments gives valuable input to the study. Today’s project management theories and practices mostly originate from USA and the U.K and rely on assumptions of stable and rational settings of social environment, politics and economy (Muriithi & Crawford, 2003). In the last 60 years, it has grown to become a well-established discipline in the West (Chen & Partington, 2004). There are associations, such as PMI in the USA with the *PMBOK*® *Guide* and IPMA in Switzerland with *IPMA Competence Baseline*, working with distribution of project management standards. These standards are accepted and followed by a large number of practitioners worldwide (Crawford, 2000).

Regarding to Muriithi and Crawford, the industry is suspicious if these standards could be successfully implemented in Africa. Studies on cross-cultural management shows that concepts accepted in the West may be useless in Africa due to cultural differences. Managerial practices are tied to human behaviour and when dealing with human behaviour the cultural, social and political aspects must be put in context (Muriithi & Crawford, 2003). Studies have revealed that different cultures contribute to different sets of beliefs and practices of management, especially when the cultures manifest diverse ideas of reality. Individual values and beliefs are strongly connected to the culture and it is an essential factor when shaping the personal view of the world (Chen & Partington, 2004). Hofstede argues that humans develop “mental programs” during childhood and strengthen them in schools and at work. Thus, the culture and values that grow among the population is exceedingly dependent on the country. The validity of management theories and practices across countries and cultures should therefore be questioned (Hofstede, 1980) (Haire, et al., 1965) (Lituchy, et al., 2012) (Dickson, et al., 2012).

Muriithi and Crawford presented a nuanced picture of African culture with the help of Hofstede’s theoretical framework for portraying cultural differences. According to the study, African culture separates itself from Western when looking upon the four dimensions in the framework: Individualist vs. Collectivist, Masculinity vs. Femininity, Uncertainty avoidance and Power distance. Their study found that dimensional differences between West and Africa had significant weight in explaining why some Western project management theories and practices lacked validity in Africa (Muriithi & Crawford, 2003).

Further, studies made by (Lituchy, et al., 2012) on African managers’ point at unique managerial features that are important in Africa but not necessarily in the West; such as: a paternalistic leadership style, tribal ties, non-financial rewards, spirituality, communalism, supportiveness and local concepts. Further, the study found that Ugandan leaders valued cultural aspects such as; communities, values and beliefs, language, collaboration, clans and tribes, and helping others, in order to effectively lead subordinates.
The prosperity of mankind highly depends on well-functioning management of organisations. As for the rest of the world, this is especially the case for Uganda and the rest of sub-Saharan Africa. After years of economic mismanagement and overall poor leadership, Uganda has started to recover (Otiso, 2006). In order to enhance the positive development, effectively managing resources is vital. To ensure welfare and create wealth for the population in Africa, the development process is highly dependent on organisations that understand the cultural context of the countries they are active in (Jackson, 2004).

2.1 ORIGIN OF “WESTERN” PROJECT MANAGEMENT

Project management was in the early days treated as a form of art, rather than a field of science as it is today. Henry Gantt’s development of the Gantt chart and Henri Fayol’s presentation of the Management Process (Planning, Organising, Commanding, Directing and controlling) pioneered, in the early 1900s, the development of management concept. The techniques were developed further and first implemented in America and U.K by the aerospace industry and the military in the 1950s and 1960s. The US Defence-Aerospace Industry has invented almost all Western project management techniques such as; PERT (program evaluation and review techniques), EV (earned value), configuration management, value engineering and WBS (work breakdown structure). CPM (critical path method), PDM (precedence diagram method), network diagrams and resource smoothing was in addition developed by the construction industry. During this time projects such as the Apollo space program and constructions of nuclear power plants benefited from these project management practices. When such complex projects were developed, the need for alternative organisational structures aroused. Instead of using traditional hierarchical structures, more dynamic frameworks were created, such as the Matrix Organisation Structure, with a project focused approach (Burke, 2003).

During the 1970s project management grew in popularity and got adopted by other sectors outside of construction and the military. Failures in executing efficient projects became an issue, especially in the public sector, which lead to the development of project management associations. In America PMI (Project Management Institute) were created and worked towards establishing project management as a profession and refined tools and techniques. When moving into the 1980s, external stakeholders’ impact on projects increased. Project planners needed to create solutions that fit all stakeholders’ opinions to a wider extent than in the 1960s and 1970s. The tools and techniques invented needed to get implemented into this new era. The result was the development of the Time, Cost and Quality Triangle, which aided the balance between internal and external stakeholder opinion (Burke, 2003).

The project management development had focused on the implementation phase but in the 1980s the focus shifted to a front-end perspective to add more value. Stakeholder needs where adopted trough feasibility studies and risk analysis. The concept of project life-cycle was implemented in order to aid the trade between construction and maintenance costs. In the 1990s and 2000s, influences from especially Japan where adopted by the industry to raise efficiency, enhance innovation and cope with market competition. This time period saw leaner and more flexible organisation structures combined with more systems approach. TQM (Total Quality Management) with the aid of ISO 9000 Quality Management System put weight on the importance of the client,
on-going improvements, and teamwork and life-cycle management. Further, the promotion of a project management culture within companies began to get enhanced (Burke, 2003).

3 THEORETICAL FRAMEWORK

The theoretical framework aims to give the reader an overview of Western construction project management theories and practices. The theories and practices presented aims to cover significant parts of construction project managers’ activities during a construction project, from the early stage of initiation to later leading the project coalition towards finalisation.

3.1 DEFINING THE PROJECT MISSION

In the initial phase of a construction project it is vital to specify what the project aim to fulfil. The specifications of the project are then matched with the resources of the client and a project mission or goal is set (Tonnquist, 2010).

3.1.1 Concept of time, cost and quality

The quality of a construction project is always strongly connected with the amount of resources available, which are time and budget. The time and budget available will decide how well the quality of the project can be. Furthermore, if the quality is raised it will affect the time and cost of the project as well. This can be visualised with the project triangle where the three parameters take stand at each corner with the quality at the top. The project can be seen as stable if the shape of the triangle stays intact, that is, if quality is raised so is time and cost (Tonnquist, 2010).

3.1.2 Project mission

One of the most important tools for a project manager is the ability to communicate a shared vision of the project, which gives the coalition members meaning to their separate tasks (Dainty, et al., 2006). Being temporary organisations, project coalitions are highly dependent on being managed towards a common goal. The goal or the project mission is the main objective for the project manager to realise. Acting as the direct information source between the client and the rest of the project members, the project manager has the position to give the members a bigger picture of the project is going to deliver. If the project mission is shared and understood by the project members, trust can develop between them and conflicts can be avoided (Winch, 2010).

The client has a vision of what the project aims to achieve given the technical and regulatory parameters. The vision of the client should, for the benefit of the project, be transferred to a clear project mission. If a project mission that correlates with the vision is not fully developed, the project members might not fully understand what the client wants. This scenario creates an uncertain environment and misunderstandings occur frequently and can only be mitigated through repetitive discussions of the subject (Winch, 2010).

If a vision is successfully implemented in a group, the members can collectively work towards the project mission. It is up to the project coalition if the project reaches its requirements and it is the
project manager who is the key actor in realising them. Since construction projects often are a collaborative effort of many different actors that never worked together before. In order for the project manager to successfully manage these actors, one vital aspect is to develop a common set of values and norms, which will direct the coalition members towards a common goal, being the project mission (Dainty, et al., 2006).

3.2 MOBILISING THE RESOURCE BASE
The project coalition or the resources base in a project has one target, to accomplish the activities or tasks that lead toward fulfilling the project mission. For the project managers, it is therefore vital to attach the right competences to the project in order to make it successful (Tonnquist, 2010).

3.2.1 Procurement processes and contractual forms
In the early phase of a project, the client needs to attach competences to a project. This is usually done in four different ways; usages of in-house capability, appoint a supplier, launch a concourse or issue an invitation to competitive tendering (Winch, 2010).

3.2.1.1 In-house capability
In-house capabilities are often used by clients in governmental agencies that undertake large amounts of construction works. To use in-house resources for a project has a number of advantages but foremost there is no need to complete detailed contracts before a project can begin, since it is possible for the client to adjust the production continuously throughout the project. However, there is a disadvantage if construction is not the main business of the client, then the management of the project can be troublesome. Further, using this method leads to a lack of competition, which could lead to inefficiencies and raised costs for the client (Winch, 2010).

3.2.1.2 Appointment
Projects with high uncertainty or with not much time for preparation of tendering documentation, appointment of a supplier could be made. Usually the client appoints a supplier on the basis of their reputation and references. This method makes the search of a supplier easier, administrative costs of preparing a bidding process gets minimised and relationships between the client and the supplier could be built if transactions are repeated. However, the built relationships can get to comfortable leading to corruption or to the use of invalid appointment criterions. Furthermore, using this method in bigger extents can bring lack of competition, which gives inefficiencies and raised costs (Winch, 2010).

3.2.1.3 Concours
When this method is used the client announces a competition amongst the suppliers, usually regarding the architectural solutions. The supplier with the best design wins the contract and by using this method the client can find suppliers beyond their original network. The downside is that aesthetics might concur over technical details, which are not easy to spot in models and drawings (Winch, 2010).

3.2.1.4 Competitive tendering
Competitive tendering has become the most commonly used method of selecting resources in construction projects. The client prepares detailed documentation and specifications what is required
of the planned construction. This allows different actors, interested in the job, to calculate their price for the delivery of what is required. According to the price, the client can choose the cheapest actor that meets all the requirements. This method gives the client the opportunity to find the best price among a poll of competitors. Furthermore, if the client is based in the public sector, it is easy to make transparent selection of suppliers and minimise risks of corruption. The disadvantages might not be as widely spread as the positive aspects of this method. There are risks of procuring a supplier who in a later stage is unable to deliver according to the tendering documentation and the signed contracts. This is due to that information about the competence of the supplier could be limited in the stage of procurement. Further, the client faces the pressure to produce detailed tendering documentation and competitive tendering might not work efficiently in projects with high uncertainty. Furthermore, the client needs to allocate a lot of resources to produce tendering documentation and to evaluate offers; research has proved that up to 20% of a project budget might disappear in transaction costs (Winch, 2010).

3.2.1.4.1 Principal agent problem
The principal agent problem can be defined: “The client (The principal) wants to hire the most competent (efficient and effective) suppliers (The agents) of the required resources, yet the agent knows more about its real competence than the principal.” This problem is the source to both the problem of moral hazard and adverse selection (Winch, 2010).

3.2.1.4.1.1 Moral Hazard
The problem of moral hazard can be defined: “As long as the buyer can fully measure the quality of what is offered on the market, he or she can buy on price with confidence, and the adage that `you get what you pay for` is true.”

The risk of moral hazard, post contract, in construction is a common occurrence due to that most contracts are incomplete when agreed. The problem can for example arise if suppliers withhold important information from the client regarding decision making because they are not motivated to share it. The client cannot easily monitor the quality of the services so that the supplier is motivated to supply lower quality to raise profit (Winch, 2010).

3.2.1.4.1.2 Adverse selection
The problem of adverse selection can be defined: “How can the client be sure that the most enthusiastic offer of the required resource is not also the most desperate; that the lowest price is offered because nobody else will contract with the supplier because the other clients know more about its real capabilities?” (Winch, 2010).

3.2.2 Staffing the project
The method used for staffing projects varies depending on the method of procurement. In-house capabilities do not need procedures; since the labour force is already attached to the organisation and the appointment of staff tend to be done informally. When only an appointment of a supplier is done, the criterions a supplier should fulfil are certification and reputation. Further, when the tendering methods of concourse or competitive tendering is used, the staffing tends to be done formally. Concourse procedures tend to lean on the formal side, with set of rules and regulations for the competitors to follow. However, the most formalised way of staffing projects is with competitive tendering, where tendering documentation is the base for decision making. In early stages of projects, the client has the power to make decisions regarding methods of contracting staff. During the early stage, the project is highly dynamic regarding uncertainty and the cost of making
these decisions is relatively small. Comparing this with changes in the later stages, where the uncertainty is low dynamically, decisions regarding the staff affects the budget significantly (Winch, 2010).

3.2.2.1 Finding the “right” competences
Worldwide, the most commonly practiced method when forming project coalition is usage of appointment for design services, even if competitive tendering for design services is increasing, and competitive tendering is widely used for the latter stages of production. However, as pointed out previously, there are a number of disadvantages to competitive tendering, which has led to newly developed forms of competitive tendering, such as;

- **Best value procurement**, where the quality and price criteria is merged in to the tendering documentation
- **Competitive dialogue**, where formalised joint problem-solving sessions are being performed prior to realising the contract
- **Two stage tendering**, the technical and economic proposals divided in to two stages. Firstly, proposals for the technical solutions are welcomed and secondly the best evaluated firm, regarding the first proposal, can leave their economic proposal
- **Partnering**, where formal agreements, between client and another actor, are formed to collaborate in a program of projects (Winch, 2010).

3.3 Riding the project lifecycle
When the project runs through its different phases, the project manager needs to control the process and make the client feel safe. To ensure that goals and plans are transferred, results are reported, changes are managed and documentation is available, the project manager has to ensure a functioning communication between actors (Tonnquist, 2010). The communication that takes place between members in a project coalition has many different forms, such as; oral, written, formal, informal and digital communication. With the help of this combination of communication methods the collaborative work between actors moves toward finalisation of the project (Karrbom Gustavsson, et al., 2012).

3.3.1 Formal communication
Promoting a functioning communication between individuals is vital to secure the interaction between coalition members. An efficient way of formal communication is planned and structured meetings where actors can meet face to face. Especially, in projects using traditional procurement forms where actors are separated by contract and function. Instead, meetings can break down barriers and bring deeper understanding for each other’s tasks. Construction projects gather different professions and actors with different levels of expertise and different ways to communicate, for completing a project together. Often they do not have the experience of working together and it is of importance to overcome differences and barriers in order to achieve successful projects. Further, other forms of formal communication that has proven to work efficiently are letters, fax and email. However, it does not matter if communication is planned on paper and actors showing up to meetings, interaction will not take place if existing barriers are not broken down. Professional
barriers are broken down by developing a shared understanding and a common language within the group (Dainty, et al., 2006).

3.3.2 Informal communication
Controlled informal communication, such as spontaneous conversations, phone calls and emails, is an important tool in managing construction projects. To rely on formal organizations charts, to know which actor is communicating to whom, is not a correct view of reality. Power positions might be located in other parts of the organizational chart and to control these is important for the project manager. Particularly in dynamic organizations, organizational charts can be viewed as an optimistic structure for how communication is arranged. Research has stated that informal communication channels are more realistic in terms of flexibility in decision making. Formal hierarchies are likely to be unrealistic control mechanisms. Contractual forms and procurement process often dictate how the formal organizational chart is created. It is determined in the early stage of a project which actors have certain responsibility to whom, formal organization is seen more as pre-designed rather than evolving to fit the needs of the project. However, effective project managers need to be able to communicate on all levels within a project. This interaction requires different communication skills and while informal communication is useful in a project, it is important to control it in order to secure the project mission (Dainty, et al., 2006).

3.3.3 International actors
The construction industry has become more and more internationalised. Foreign actors bring new challenges for project managers in terms of communication. The challenges consist of that actors that literary do not speak the same language or at least at the same level. Project managers active in multinational project environments need to reinforce their communication, with verbal and non-verbal messages, in order to be able to be understood by these actors. Signs are a common way to reinforce information, especially regarding health and safety aspects, which might differ from country to country. Another way of coping with the language barriers is to send migrant workers to simple language courses for the aid of the up and coming communication issues. It does not matter if communication is planned on paper and actors showing up to meetings, interaction will not take place if existing barriers are not broken down. Professional barriers are broken down by developing a shared understanding and a common language within the group (Dainty, et al., 2006).

3.3.4 ICT-tools
ICT-tools used for communication within the construction industry have improved radically over the last years. However, the industry still relies on formal face to face meetings for most of significant decisions and key information exchanges. It is firmly imbedded within the construction industry to keep decision making out from the digital world (Dainty, et al., 2006).

Mobile telephones, email, e-commerce and 3D-modelling are widely used in the construction industry. However, these technologies are not well developed for usage in the construction sector alone, but for a use in wider range sectors. ICT-tools can be categorised in two different areas:

- **Computer-assisted communication technologies**, such as video conference and email. These are developed to accelerate communication between actors with more effective methods compared to face to face meetings.
- **Computer-assisted decision-aiding technologies**, such as intranets or BIM concepts. These are developed in order to give actors access to information for the aid of decision-making (Dainty, et al., 2006).

The use of ICT-tools is common within the western construction industry. However, the knowledge of how to draw optimal benefits from the tools is still developing (Karrbom Gustavsson, et al., 2012). Even if there is a great number of software and applications that fulfil its purpose within the construction industry, the implementation of ICT-tools is a challenging issue (Dainty, et al., 2006) (Karrbom Gustavsson, et al., 2012).

There are many answers to the barrier of implementing newly developed ICT-tools in construction projects. However, there are some commonly shared problems:

- Actors active in different disciplines working together in a construction project may prefer different tools, specialised for their respective discipline, which complicates information sharing (Dainty, et al., 2006).
- Negative attitude amongst the employees, due to the conservative construction industry (Dainty, et al., 2006).
- Companies investing in ICT-tools do not always reach the predicted outcomes. They are still active in the same environment as they were prior to the investment, since companies are active in collaborative projects with other companies. That environment is still focusing on repetitiveness and standardisation rather than innovation and development. A single actor has difficulties in changing the bigger group’s methods (Karrbom Gustavsson, et al., 2012).

### 3.3.4.1 Computer aided design (CAD)

The construction industry started to implement CAD software about 15 years ago and today it is widely used by actors in the sector. CAD packages have been expanded with visualisation features which allow modelling in more dimensions. Information regarding the production can be retrieved from the model, which gives an advantage over previous used manual techniques. Performance data can be linked to production models which give project managers and other actors a powerful tool in decision making (Dainty, et al., 2006).

### 3.3.4.2 Project planning and estimation tools

This area of ICT includes software aiding the project planning, control and estimation techniques. Packages are used to create Gantt charts, critical path analysis packages and advanced software for project planning. Further, estimation packages used for project control are also popular amongst companies, such as linking cash flow against a construction programme. BIM concepts have evolved from these kinds of tools allowing project members to interact in a shared virtual model that is updated continuously throughout the project (Dainty, et al., 2006).

### 3.3.4.3 Internet-based communication tools

Internet, with all its capabilities, has brought a number of useful tools to the construction industry, such as; E-procurement aiding the procurement processes, E-commerce aiding the supply of construction materials to site and E-collaboration aiding the communication within a project coalition with online portals accessible for all project members. There is a trend showing that the use of different forms of internet-based services has increased (Dainty, et al., 2006).
3.3.4.4 Supply chain management tools
Tools have been developed in order to control the supply chain and track deliveries to construction sites. For example; GPS-trackers can be used on deliveries and linking them to web applications and implementing the use of URL addresses on products delivered, which aids the user to find product information such as assembling instructions (Dainty, et al., 2006).

3.4 LEADING THE PROJECT COALITION
It is not only the result of completed project that makes a competent project manager. The project manager needs to have the ability to cope with challenges in an appropriate manner and be an effective and motivating leader in the project coalition (Tonnquist, 2010).

3.4.1 Co-operation
Construction projects consist of different actors coming together to perform tasks for a short period of time, having knowledge of group development is essential, to enhance teamwork, for the project manager. The different stages in group development have impact on the communication processes within the group. When group individuals work on shared tasks they will at last form a functioning collaborative group. However, this process needs to be facilitated by the project manager in order to succeed (Dainty, et al., 2006).

The group development process can be divided into four different stages, where the project manager needs to take different roles:

- **Forming**, in this early stage the members of the project start to get to know each other and try to gain acceptance from the group. During this stage, the project manager should give the group structure and be prepared to lead members in detail.
- **Storming**, now, if the forming was successful, members have started to gain confidence within the group. They start to state opinions which can lead to conflicts. In this case the project manager should defend her/his position as the leader and at the same time support the group to handle their conflict internally.
- **Norming**, members have started to know their place and role in the group and responsibilities are clear. The project manager needs to set standards for the project and delegate tasks between members. It is important to not micromanage the team members since this will prove that the project manager do not trust the members to operate on their own. If the project manager is successful in her/his way of leading the group during this stage, the group will be motivated and engaged in their work.
- **Performing**, now the group has matured and is functioning properly. The norms that were set during the norming phase give the group support in their collaborative work.

Teambuilding sessions and/or similar activities in the early stage will speed up the group development process. Without a good facilitation of the development, some groups may not reach the performing phase and will function improperly and inefficient (Tonnquist, 2010).

3.4.2 Team structures
Traditional hierarchic structures, similar to structures in the army (from soldier to general), are commonly implemented by companies. This structure creates several levels of command.
Organisations has started to minimise these levels by creating flatter organisational structures, which simplifies decision making and removes overhead costs (Maylor, 2010). Groups and individuals act in a certain way depending on which group or position they are in. The following aspects are important for the project manager to keep in mind when managing groups or individuals (Dainty, et al., 2006).

3.4.2.1 Formal and informal groups
Groups formed under different circumstances will also act and communicate differently. Teams developed under informal spontaneous circumstances tend to have dynamic qualities. On the other hand, formally developed groups tend to have more structure and are stable in nature. The style of communication can also be strongly connected to how the group was formed. Formal formed groups prefer formal communication channels while informal formed groups use informal channels of communication. Furthermore, it can be seen that the different groups differ in their norms and values. The formal groups rely on functional duties and positions while the informal groups rely on personal characteristics and status within the group. In construction projects, the level of formality in a group can affect interaction and group performance. Conflicts can evolve from different interpretations of contracts in traditionally procured construction teams. In a situation of crisis, formal contracts can stand in the way of taking action in order to solve the situation. What can be preferred in those situations is instead informality and flexibility (Dainty, et al., 2006).

3.4.2.2 Roles and positions
The roles assigned to different actors and individuals within a construction project will affect their ability of efficient communication. The roles defined through formal or informal circumstances, such as from hierarchical status, social status or personality type. Further, studies have shown that certain actors are dominating formal meetings between project members. These dominant actors form a core group within the meetings where they take on the role of representing other members even if they are present at the meeting. Research has shown that the majority of the communication is held between the project manager, contractor and the architect. The contractor takes on the role of representing subcontractors and the project manager the role of representing the client etc. The result this common phenomenon is that the likelihood of misinterpretations increases and communication links between actors increase (Dainty, et al., 2006).

3.4.3 Motivational theories

3.4.3.1 Taylorism
Taylorism is a theory created by Fredrick Taylor regarding scientific management. The theory interprets that jobs should be tailored after certain principles:

- Work should be studied and divided into separate segments. Each segment should aim towards maximising efficiency of the activities involved.
- The work segment should be matched with a suitable worker. A task requiring a strong person should be matched with a strong person.
- The employee assigned to the task should be trained to do it as effective as possible.
- The employee should be rewarded when completing the task, as it was prescribed, with a salary.
The theory suggests that the individuals performing a job should not need to have a thinking process when working with a specific task. That work task should already been studied so that it is standardised in the most efficient way. Motivation should be given in forms of salary and in no other way. This method simplifies tasks and the worker performing the tasks is able to standardise her/his work easily and perform efficiently. Further, the employee could be replaced easily since the knowledge is explicit and easy to transfer to others. Aspects to consider when implementing Taylor’s theory on staff are that employees get divided mentally from the work they perform, which can create a sense of exclusion from the process and people may lose interest. The employees can develop a destructive behaviour of “I do not care”-mentality (Maylor, 2010).

3.4.4 Hierarchy of needs and Motivation-Hygiene theory

Abraham H. Maslow, an American psychologist, created a theory describing, with the help of a pyramid, the hierarchy of needs of people and how needs are linked to motivation. The theory states that individuals have basic requirements on each level and once their needs are fulfilled on one level, they want to move up to the next level.

![Maslow's pyramid describing human needs](image)

Frederick Hertzberg, another American psychologist, created a two-factor theory describing two factors that need to be fulfilled to fully motivate actors. The first factor that needs to be fulfilled is the hygiene factors, including working conditions, salary, etc. Fulfilling the hygiene factors will only bring a level of satisfaction and motivation; however, it will not raise motivation beyond a certain level. To satisfy and further motivate the actors, the second factor of motivation factors needs to be

![Hertzberg's two-factor theory](image)
fulfilled. This factor includes recognition for achievement, responsibility for tasks and more. Only when the two categories of factors are fulfilled the employees will be fully motivated. For a project manager, a combination of these two theories can act as basis for a reward and motivation system for the project members (Maylor, 2010).

3.4.5 Conflicts

Setting project goals involves mediating between aspects of time, cost and quality. For the actors involved in a project, these three aspects could result in conflict due to different interest and knowledge. In order to set optimal goals for the project, the project manager need to consider both explicit and implicit conflicts that might occur as a result of the set goals. The goals set should be considered to fit all parties and to be in line with the actors’ individual goals. A balance between emotional and rational feelings from the project manager will avoid conflicts and confusion (Leung, et al., 2005).

The project manager can take on different roles when solving conflicts:

- **Monitor**, the project manager does not interfere in the conflict and lets the parties solve it by themselves. If this method works, the resolution is likely to last for a long time.
- **Mediate**, the project manager helps the conflicting parties to a solution.
- **Judge**, if none of the above methods do not work the project manager has to take a decision to solve the conflict (Tonnquist, 2010).

Resolving conflicts in a construction project requires the parties to meet face to face and discuss the issue. In conflict situations, the usage of ICT-tool for conflict resolution may hinder the process of conflicts getting solved (Dainty, et al., 2006).

3.5 Corruption

Since the construction industry, worldwide, accounts for a significant part of the countries’ GDP it plays a central role in economic development. Because of the significant role it plays in society when it comes to housing, infrastructure, schools and hospitals; corruption in this sector can be more harmful than in others. When corruption leads to poor quality of construction, poor project selection or inadequate maintenance it reduces the economic return to society and harms national development. Governments play a major role in this sector, both as client and regulator, and questions are raised if certain governments are able to handle the responsibilities of the construction sector. Generally, investigating the public sector of the poorer parts of the world such as, Africa, Latin America and parts of Asia, it is seen that these parts have a high level of corruption while the richer Western part of the world have low numbers of corruption cases. These theories suggest that there is more room for corruption in poor countries with less developed democracies while in more developed countries the opportunity to undertake measures against corruption is higher and therefore it is not as common. However, there are exceptions to this, if comparing Italy against Zimbabwe, Italy being the richer country is having higher amount of corruption. It is also proven that the southern part of Europe have higher amount of corruption compared to the northern parts of Europe. It has for long time been stated that the Scandinavian countries of Sweden, Norway, Denmark and Finland are having lower amounts of corruption compared to Spain, Portugal, Italy and Greece (Andersson, 2002).
4  FIELD STUDY: PROJECT MANAGEMENT IN UGANDA

This section of the study intends to give a general view of how construction project managers currently operate in the Ugandan construction industry. Furthermore, give a view of the mentality and customs of the managerial environment and highlight difficulties that are specific for Uganda and the local solutions to cope with them. The researcher travelled to Kampala, Uganda and met with project managers active within different fields of construction to receive information presented in this thesis.

4.1  COMPANIES IN THE STUDY

The participating companies in the study are made of consultancy, architectural and construction firms within the Ugandan construction industry.

4.1.1  Contractor A

The company specialises in multi-disciplinary construction projects. As one of the leading construction companies in Uganda it is currently housing 3000 employees throughout its operations. The company welcomes projects of all sizes and clients of both private and public.

4.1.2  Contractor B

The company is a contractor with approximately 100 employees. The company’s main focus is constructing single family homes in and around Kampala. However, they are active in other types of construction projects on occasion as well.

4.1.3  Contractor C

The company is a Ugandan public enterprise. It has an in-house capacity to carry out housing projects to a wide extent. Their objective is to increase the housing stock and to encouraging Ugandans to own homes in organised environments while still making a profit for their owners. They design and build homes on acquired land and put them on the market. The company was at time of interview currently active in various new development projects in and around Kampala.

4.1.4  Consultant A

The company is an architecture and project management consultant. In Uganda architecture and project management goes hand in hand. It is common that the design and planning team is the same company that will act as project managers in favour of the client. The company handles a wide range of different construction projects, from high-rise buildings to modernisation projects.

4.1.5  Consultant B

The company is a consultancy firm which provides all aspects of project management and mostly active in nationwide infrastructure project in Uganda, for example, the road network is being redone all over the country.

4.1.6  Consultant C

The company is an architectural, engineering and project management consultancy firm. It handles projects from small residential houses to huge commercial projects for example a new 35000 sqm shopping mall recently constructed in Kampala.
4.1.7 Consultant D
The company is a consultancy firm providing services regarding structural, geotechnical, transport and water engineering. The company also offers project management services in their fields of expertise. At time of interview, the firm was mainly active in water infrastructure projects such as a new water pipeline in Kampala.

4.2 GROWTH OF PROJECT MANAGEMENT PRACTICES IN UGANDA
Until late 1980s the concept and practices of project management did not exist in the Ugandan construction industry. Instead, clients usually took on the role to control projects. During the 1990s construction projects started to get initiated and financed by international clients such as the EU, the World Bank and Arab countries. These clients demanded the use of project managers in their construction projects, since they were complex and needed the tools and techniques provided by these professionals (Consultant A, 2014).

The profession of project managers is getting more and more established and appreciated in Uganda. However, project managers are usually not only acting as project managers in a project. A project manager takes the role as project manager if needed in a project while he actually has another profession in reality. In most cases it is the design team that handles the managing of a project if nothing else is demanded from the client. It is also a possibility that the client takes the role of project manager in a project (Consultant A, 2014).

4.3 DEFINING THE PROJECT MISSION

4.3.1 Concept of time, cost and quality
All interviewees in the study were working according to the time, cost and quality triangle. They were well aware of the concept and the importance of prioritising between the different elements of cost, time and quality. In most projects where participants had been active, the documentation stated that time, costs and quality were equally important. However, in the Ugandan construction industry, there is a visible trend pointing at the priority of costs and time over quality. Contradicting, some of the participants stated the importance of quality over costs and time.

4.3.1.1 The project costs
The main goal for project managers is to meet the requirements from the client to the lowest possible cost. The contractors in the industry have a mentality of trying to maximising their profit from projects. The project manager needs to control the contractor with signed documentation which makes it possible for the manager to accomplish the goals set by the client (Consultant C, 2014).

The prioritisation of costs and time over quality is due to insufficient construction budgets. When a project is initiated it has in most cases a sufficient budget. However, a big part of the money disappears in the design and planning phase due to various reasons such as bribes and corruption. When the contractor receives the project it is lacking sufficient budget to be able to be completed according to the tendering documentation. The client who is well aware of the situation is in these cases willing to cut both design and quality in order to maintain a high profit from the project. Time
and costs are the variables that become the keys to accomplish this goal. The mentality of raising as much profit as possible from projects has led to a culture, within the Ugandan construction industry, where the work of designers and architects do not have the needed value. Most clients are only interested in how fast and cheap contractors can produce construction projects in order to raise the highest returns. Furthermore, contractors enrolling in bidding processes are evaluated with regards to previous construction experience and qualification, not quality of previously completed projects. In order for contractors to win bidding processes it is vital to prioritise cost. This way the issue of quality mitigates even more. Since it is common that architects are involved in projects as project managers, cost and time orientated projects are very tough to manage due to conflicts regarding design cutbacks (Consultant A, 2014).

Since it is common for Ugandan contractors to be responsible for paying salaries to their labour force on weekly basis and still gain a profit, it is important to keep track of the costs. If the client does not pay the contractor monthly, cash flow problems occur within the contractor company. If this is the case, funds need to be moved between projects in order to maintain the craftsmen and subcontractors at the site. As a result of these problems, quality of the project comes second. A vital part for the contractor is to find the cheapest possible solutions in projects and still meet the requirements of the client (Contractor B, 2014).

On the other hand, design processes have a tendency to be forced which leads to that quantifications and pricing in the tendering documentation might not be correctly calculated. Project managers find that the costs might go above or below in the end of what has been previously calculated. The usage of continuous costs estimations throughout the project aids the estimation of the final costs (Consultant D, 2014).

4.3.1.2 The project time

The actors responsible for the design and planning phase usually overestimate the project time span. This is due to the common perception that contractors in Uganda are unorganised and logistics are lacking in efficiency. Therefore, buffer zones are added to projects to ease the workload on project managers. From the contractors’ perspective, working with the minimisation of these buffer zones and by that shortening the production phase is important in order to increase the profit margin. To accomplish this, contractors need to use computer software in planning, secure the coordination between subcontractors and ensure an effective logistic plan in order to smoothen the production phase. If production time is saved, costs can go down and the profit for the contractor gets raised (Contractor A, 2014).

On the other hand, from the project manager perspective, it is very difficult to control the time of the production phase. The time of completion is dependent on the efficiency of the assigned contractor. The responsibility of the contractor is to produce a program for the project. All actors will commit to the program, which contains a set time for the construction phase. However, many things can happen from the time of completing the program to the beginning of the production phase. The first aspect to consider is the quality of the contractor assigned, when managing projects that are complicated and also time dependent, international contractors are often used. These are more likely to be able to deliver projects on time. Local contractors are used for smaller and less demanding projects where time can be bent to fit the qualifications and skills of the contractor. The second aspect is issues regarding logistics and suppliers of materials. In the Great Lakes Region of
Africa, it is difficult to be 100 per cent sure that deliveries are to reach the construction site to fit the schedule due to various reasons such as road conditions and conflict zones. The third issue is time drags due to missing funds in the budget of the projects. Ugandan contractors are usually businesses created by somehow wealthy families, not necessarily engineers with experience and competence. When these contractors receive payments from project managers, they tend to use the money for other purposes rather than the intended project. This behaviour creates cash flow problems in projects and results in delays. The delays occur when the contractor stops the project to redirect the missing funds, for example from other projects or businesses (Consultant B, 2014).

When setting up the initial time schedule project managers need to make a lot of assumptions. Within these assumptions there are external factors, such as the weather conditions, which is difficult to control in the region. The weather conditions in Uganda are changing from wet to dry season several times during the year. Assumptions of number of rainy days from previous years can be made, however due to climate changes it has been proven that it is differing between each year. Assumptions are also made of the contractor’s qualification and supply chain, for example that the company has access to the needed supplies for completing the project. What can actually happen is for example that UN decides to propose a sanction in the Middle East and the deliveries of certain supplies needed from the export country stops. These factors have to be taken into account but still it is difficult to control the time in detail. Taken these factors in account, the quality objectives of the project must be reached, even if the cost and time differs from the first evaluated values (Consultant D, 2014).

4.3.1.3 The project quality

In the initial phase of design and planning, the quality standards and time needed to accomplish these needs to be set according to the assigned budget (Consultant C, 2014). The set quality objectives should never be compromised with, even if the client is pushing towards prioritising costs and time. This mentality is the duties of the project manager, as an engineer ensure the quality of the project will meet the standards required. In order to maintain the quality standards, the initial deadline of the project can be bent (Consultant D, 2014). When considering residential developments, the quality is in most cases not compromised with. Since units are usually sold previous to completion in order to raise funds for the project, a certain quality is promised to the clients. Time of completion can be adjusted to a certain extent; however, clients need to receive their new home on time (Contractor C, 2014).

4.3.2 How goals are communicated

To create common goals and to share a vision of a project between stakeholders is not highly valued within Ugandan project management practices. The communication between involved parties is more task-orientated rather than mind setting or engaging. Which stakeholder who shares information with another is clear and communication outside of the boundaries seems minimal.

4.3.2.1 Project Managers

In the project coalition, project managers communicate only with the main contractor. It is the main contractor’s responsibility to further communicate goals to subcontractors or the in-house labour force. The project goals are specified in the tendering documentation and contracts written between the project manager and the contractor (Consultant C, 2014). Through these documents the
objectives of the project is made clear for the contractor to follow. The contractor will through the documentation know what is expected in terms of results and payment. Contractors cannot build what they believe is necessary without first consulting the project manager. When stages in production are finalised, a quality surveyor will assure that the objectives are met and the contractor gets approval to continue with the next stage in production (Consultant D, 2014). The main channels of goal communication are through documented specifications and/or meetings between managers (Contractor C, 2014).

4.3.2.2 Contractors
The Ugandan subcontractors are still beginning to function properly, to manage them in the right direction is vital. If projects are complicated and time needs to be kept to a minimal, foreign subcontractors from the neighbouring countries Tanzania or Kenya are procured. At the construction site, the Gantt scheme is aiding the communication in terms of pushing the in-house labour force and subcontractors to keep time, which is the main priority (Contractor A, 2014). Project visions and goals are kept between clients and managers. The labour force is in most cases attached to the projects on weekly basis and to communicate more details than certain tasks are not needed (Contractor B, 2014).

4.4 Mobilising the resource base
When competences are attached to projects and the project coalition is formed, procurement and bidding processes are commonly practiced in Uganda. However, the number of contract forms is kept to minimum and are represented mainly by general contracting and construction management forms. Furthermore, even when all contracts and documentation is in order, the situation between actors is complicated and problematic.

4.4.1 Procurement processes and contractual forms
After projects have been initiated and the design and planning phase is completed the most commonly used contractual form is general contracting (Consultant A, 2014) (Contractor B, 2014) (Contractor A, 2014) (Consultant C, 2014) (Consultant D, 2014) (Contractor C, 2014) (Consultant B, 2014). Projects do not generally have an assigned project manager in early stages. However, the architectural firm responsible for the design, usually steps in as project manager in the later stage of production (Consultant A, 2014). Other forms than general contracting are not widely used in the Ugandan construction market due to the lack of in-house competence at most domestic construction companies (Consultant C, 2014). It is even common that production phases gets divided into different procurement processes due to the fact that contractors are unable to handle entire production phases by themselves. Projects have a tendency to end up being run as CM projects when the assigned main contractor does not have the ability to control the project in a way that satisfies the project manager. The project manager will in these cases fire the main contractor and manage the subcontractors directly (Consultant A, 2014). However, with the increasing number of projects that would benefit from other contractual forms such as design and build, these forms have started to emerge on the market. Contractors have, as a result of this development, started to build their in-house capacities (Consultant C, 2014).
Procurement processes in Uganda is a difficult task for project managers since the number of qualified contractors are few. However, the number of firms bidding on projects is many. The project manager might receive bids from ten or more contractors. When evaluating the bids and qualifications of the contractors, there might be only two that pays taxes and of the two, one has the right qualifications and experience to complete the project. It is vital that the one in charge of procurement is thorough with the evaluation of the bidding contractor. These include visits at the companies and make inventories of their staff and machines. Visit previously completed projects and evaluate their work processes. Since contractors might present impressive documentation and qualifications on paper, this might not be the case in reality (Consultant A, 2014).

Furthermore, clients have a tendency not to give main contractors the upper hand of procuring subcontractors due to the belief of loss in profit. In these cases projects end up being run according to CM contractual form. This contract form puts a lot of pressure on the project manager to have detailed knowledge of different construction phases. Another issue in the Ugandan construction market is the lack of innovative thinking in projects. If the project manager or contractor wants to use new materials or ways of leading projects, the clients usually think that the actor is complicating things and it will lead to a higher cost of construction. To build as simple and cost effective as possible is the mentality within the market. If new ideas are brought forward in bidding processes, it will most certainly lead to a loss for the actor and the project will go to someone else (Consultant A, 2014).

In Uganda there are many ongoing and planned construction projects. However, there is a general lack of projects that will benefit consultants and contractors in terms of profit and reputation. When such jobs come up, actors usually feel a fever spreading among the companies competing for it. Threats are a common and deals are being made in the dark. However, these kinds of projects usually get divided into smaller parts where the profits for actors get minimised. The general goal for most clients is to make as much money as possible out of projects (Consultant A, 2014). Oral and informal agreements between the contractor and project manager are a common way of winning bidding processes. These informal agreements can in some cases result in complications regarding, for example, lack of funding from the project manager who is representing the client (Contractor B, 2014). The projects are received by having the cheapest price and meeting the requirements of the client (Consultant C, 2014) (Contractor B, 2014). The requirements usually consist of cost and technical specifications. In the end it is not the one presenting only the cheapest price but the one meeting both aspects that receives the job. In the past the prices of contractors had more weight than the requirements, this made projects difficult to manage and has led to more formal methods getting implemented (Consultant B, 2014).

4.4.2 Staffing the project

4.4.2.1 Domestic companies

To find and attach the right competences to a project is in Uganda, as in any other country, a vital part of project success. The country’s well-known and troublesome past has led to that many industries, including the construction sector, is still young and in a stage of development. To find the right competences and specialists for certain projects can therefore be more difficult than elsewhere in the world. The reason is simply because there are no specialists. Since the construction
industry is relatively small companies can’t afford to specialise in certain fields as bridges, roads, tunnels, schools etc. Everyone is doing everything and will take on almost any project handed to them. The mentality of many companies is to first get hold of the project, then deal with the problems attached. This creates an environment where everything is half-baked. Generally, Ugandan construction companies are lacking in competence. International actors which try to run projects in the country soon realise how few companies actually can do what they profess to do on paper. Many claim to be engineers but very few can do engineering work. Working as a project manager in Uganda is demanding since the manager in charge constantly has to make sure that contractors are meeting the requirements of the project. Micro-management of actors is essential for ensuring a good result. As mentioned, projects tend to get split up into different procurement processes. Project managers often need to join a bidding process for obtaining the supervision of the production phase. Once that is completed and since the design phase has been half-baked, the need of overlooking and re-designing the project is often necessary. This phenomena combined with the high amount of bidding contractors reduces the profitability of favourable projects (Consultant A, 2014).

When considering different bids from contractors, project managers usually have a clausal that the main contractor cannot subcontract more than 30 per cent of the tasks in the tendering documentation. This law is implemented within the Ugandan construction sector to minimise the risks of middlemen scoring a profit without actually doing any work (Consultant B, 2014). Before doing the detailed evaluation of the bids there has to be an administrative check. This is to ensure the contractor in question comply with the administrative requirements. The project manager usually has to do a check on the contractor to make sure that what they say is actually there. If there is a doubt that what the contractor claims is not true, an inspection is needed. It is done to make sure there is enough equipment and experienced staff that is required for the specific project (Consultant D, 2014).

From the contractors perspective the labour force is found by picking workers that has performed well in previous projects. Craftsmen are also found by using recommendations from other well performing employees. In general, labour is inexpensive but a lack of competence is an issue (Contractor B, 2014) (Contractor A, 2014). Parts of the employees are even made of homeless people who will exchange work for food and shelter provided by the companies. Micro-management is essential and craftsmen get paid weekly otherwise they won’t show up on site. Food is cooked on site to be able to control workers not to leave the construction site and disappear on time dragging lunch breaks (Contractor B, 2014).

The Ugandan subcontractors are generally lacking in organisation and skills. If a complicated task can’t be handled in-house or by domestic subcontractors, procurement of foreign assistance is needed. This is usually expensive and the development of local skills is urgently needed. The few good local subcontractors are found using personal networks that would be difficult for a foreign contractor to obtain. The root to the competence problems among Ugandan companies are the troublesome past of the country. In those times people were involved with many different kinds of professions at the same time in order to make a living. It’s just now that companies are starting to get organised and focused on specific tasks. The educational system has been reinstalled and within time the level of competence will rise in the country (Contractor A, 2014).
4.4.2.2 **International companies**

Due to the lack of competent domestic construction companies in the Ugandan market, international players are filling the needs of the industry. Chinese construction companies have in a big extent entered the Ugandan construction market. Many domestic companies are feeling the pressure from these actors. They are usually funded by the Chinese government and acts on different grounds than local companies. The local usually have cash-flow problems, the Chinese are not equally dependent on monthly funding from clients and can operate for longer periods of time without payment (Consultant A, 2014). The companies are bringing the needed competences from China and are not hiring locally. Their craftsmen are in some cases even working under third world level and can consist of prisoners serving their sentence as construction workers. It’s difficult for domestic companies to compete on the same level as them (Contractor A, 2014). When dealing with Chinese contractors as a project manager, it is hard to control in what level subcontractors are used in the production phase. As manager it is vital in these cases to make sure that the contracted companies are the ones actually doing the job (Consultant B, 2014).

Furthermore, the Ugandan government has been prioritising foreign construction companies due to the lack of qualification of the domestic companies. This phenomenon has been leading towards an increasing gap between the foreign and domestic construction companies. The profits and knowledge gained are leaving the country and not contributing to the development of local competence (Consultant A, 2014).

4.5 **Riding the project lifecycle**

Projects move between different phases and the project manager need to control and monitor these phases so that the goals are being reached. Construction projects involve many different internal and external actors; to be able to control them all, requires certain tools and techniques.

4.5.1 **Actor involvement**

In Ugandan construction projects, actors are seldom attached to the project from start to finish (Consultant A, 2014) (Contractor B, 2014) (Consultant C, 2014). The roles of different actors are clearly divided and they are well aware of their specific tasks and contribute to delivering the project according to those. For projects that are complex, joint ventures can appear resembling design and build contracts. However, these occasions are rare within the sector (Consultant C, 2014). It is dangerous to give contractors the responsibility of design and build since it is difficult to control the end results. Contractors in most cases don’t have the capacity or expertise to deliver entire projects by themselves. Projects are therefore usually divided between different stages in production and handled by different main contractors. This environment leads to that projects are handled by different actors without consistency between phases. This way of running projects has proven to reduce the cost for the client but put a lot of weight on the project manager and result in time drags (Consultant A, 2014) (Contractor B, 2014). In projects, disputes and replacements are a common phenomenon. Therefore, projects seldom run as textbook examples and this working environment is difficult to manage for foreign project managers who are not used to the uncertainties of the market (Consultant A, 2014).
4.5.2 Project communication and progress control

4.5.2.1 Formal communication

Formal communication is structured with different kind of meetings, inspections, reports and contract (Consultant D, 2014) (Consultant B, 2014) (Consultant A, 2014) (Contractor A, 2014) (Consultant C, 2014) (Contractor B, 2014) (Contractor C, 2014). Naturally the participating companies in the study had different routines regarding formal communication; following is a summary of their routines.

Monthly and weekly site meetings between the project manager, main contractor and sometimes the client is commonly practised in order to sort out problems and control the progress of the contractor (Consultant D, 2014) (Contractor C, 2014) (Consultant B, 2014) (Consultant A, 2014) (Contractor A, 2014).

The project manager often works according to a toll gate method, when a stage is completed there is an inspection and the contractor receives payment after the project manager has granted the production to proceed (Consultant B, 2014). The project manager works at the office but has a full time representative on site to micro-manage the contractor. These representatives are called site engineers and communicate daily updates to the project manager (Consultant B, 2014) (Contractor A, 2014) (Contractor C, 2014). Commonly occurring problems regarding the contractor is that they are not following the set time schedule and project managers need to constantly push the contractor in the right direction (Consultant A, 2014) (Consultant B, 2014) (Consultant D, 2014). To be able to control the progress there needs to be project management representatives on site, the monthly and weekly meetings are not enough. Everyday somebody is doing something on the site that may need approval or clarification of instructions. When a representative is on the site the work can go on without any unnecessary delays (Consultant D, 2014).

International contractors, especially Chinese, have brought new challenges in terms of communication and collaboration. Chinese companies are flexible and can operate, depending on the project, as a European, Indian or African company, in some cases even below third world level. The varieties of ways in which the Chinese are working are bringing difficulties for the local project managers to adjust. In the early stage of procurement, they usually send a negotiator that is fluent in English. However, once they got the project and production has started the negotiator disappears and the contact persons on site are difficult to communicate with due to language barriers. When the Chinese want to understand they do, but when they don’t it is difficult to make them understand (Consultant A, 2014).

External stakeholders’ opinions are taken into consideration by collecting the views of the project affected parties and accommodate as much of it as possible in the design and planning phase. In most cases to be able to compromise between opinions is vital and to present strong arguments to why action is needed. When dealing with mayor infrastructure developments which affect a wide population, there is a need to establish communities involving the affected parties. In these communities the project manager can regularly update the population about work, constraints and what level of assistance is expected from them. Furthermore, the population has a forum to express their thoughts and complaints and receive feedback (Consultant D, 2014).
4.5.2.2 Informal communication

Depending on the different companies in the study, informal communication differs in importance and usefulness. Some claimed that informal communication such as using telephone calls in decision making is impossible because things tend not to happen that easily. Decisions regarding production needs to be put down on paper and sign by the contractor in order for the decision to become reality (Consultant A, 2014). Furthermore, there are levels of communication depending on different circumstances in projects. Sometimes a phone call or email is enough but there are cases where emails are not valid enough such as issues regarding contractual correspondence. In these cases a document needs to be sign by both parties (Consultant D, 2014). However, face to face meetings or order exchanges between project manager and foremen at the construction site, takes place at contractor level regarding different tasks in production. At the interviewee company in question this form of communication was the only way information got forwarded down chain of command. The foremen are then responsible for ensuring that the tasks are forwarded to the craftsmen and helpers at site. Specific craftsmen are chosen by the project manager to function as spies to deliver information about how the labour force at the construction site is acting when the project manager is not present (Contractor B, 2014). On the other hand, some project managers seem to use informal communication channels to a minimum in projects and claim that site visits only are needed if there is a specific problem at the construction site which can’t be solved with reports or contracts between the project manager and contractor (Consultant C, 2014).

4.5.2.3 ICT tools

To aid communication and share information ICT-tools are used to a certain extent within the Ugandan construction industry. The most commonly used tool is E-mail correspondence. E-mail is used to receive reports and to exchange documents between actors regarding the project (Contractor C, 2014) (Consultant A, 2014) (Contractor A, 2014) (Consultant C, 2014). Microsoft Office programs, such as Excel, are widely used to draw for example Gantt charts in time schedule planning. However, contractors are starting to use and implement other more efficient software in planning at the time of writing (Contractor A, 2014). Drawings and illustrations are made using ArchiCad and AutoCad software. These are later converted into PDF files for distribution through E-mail (Consultant A, 2014) (Consultant C, 2014). Some project managers do not recognise the usage of E-mail as a valid tool for distributing information regarding decision making in projects. Such documentation should always be printed and signed by involved parties to be valid (Consultant B, 2014). Contractors that communicate to a large extent by using oral communication seem not to use ICT-tools in the production phase at any level of communication or decision making (Contractor B, 2014). However, depending on the scope of the project some companies are setting up project databases to ensure weekly retrieval of information and secure document control. In these databases it is easier to monitor the projects in terms of cost and time (Consultant D, 2014) (Consultant C, 2014). Contradicting, other interviewees claim that the use of BIM concepts or other project databases are currently not used in the Ugandan construction industry and won’t work due to that the industry still needs to advance in terms of technological development (Contractor A, 2014) (Consultant C, 2014).
4.5.3 **Risk and safety**
The issue of safety precautions is not highly valued within the Ugandan construction industry (Contractor B, 2014). However, this is not a problem when it comes to recruiting craftsmen for project, since the people of Uganda are desperate for getting a job. As a result of this, construction sites are unsafe and the risks for accidents are high for the craftsmen at site (Consultant C, 2014). Insurance for the craftsmen is non-existent to very low. If someone gets injured or dies it is called an accident and hopefully the family of the victim doesn’t have enough money to take the company to court and demand compensation (Contractor B, 2014).

However, conditions of safety are improving, contractors are asked to deliver documentation of these matters more frequently and more formal methods of recruiting staff are increasing. Still, the road to a complete safe environment for craftsmen at construction sites in Uganda is very far away (Consultant C, 2014).

4.6 **LEADING THE PROJECT COALITION**

4.6.1 **Co-operation**
Extra efforts, such as teambuilding activities, to enhance collaboration between project members are not a high priority for project managers in Uganda (Contractor A, 2014) (Consultant C, 2014). Craftsmen and actors involved in the production phase can get to know each other while working and eating together at site (Contractor C, 2014). Get-togethers, such as lunches between managers could take place to unite them before a project begins (Consultant C, 2014) (Contractor B, 2014). In order to successfully enhance collaboration between actors during a project the project manager needs experience in leading project coalitions, because not every detail regarding collaborative efforts can be written in mutual contracts. Even if formal communication is well-established, informal communication channels are vital for project success. The Ugandan construction industry is still developing towards more formal ways of working. However, informal behaviour is still strongly present in actors’ daily routine and as a project manager it is vital to have knowledge about these networks and take advantage of them (Consultant B, 2014). Furthermore, all stakeholders in a project must act in some sort of goodwill in order to reach project goals (Consultant B, 2014).

However, a construction project is not a funfair where everyone must like each other, it is a job needed to be done and it is executed by professionals in different professions. Responsibilities are defined in projects and stakeholders need to fulfil them. Fulfilling the individual obligations the overall project objectives can be achieved. Project managers need to control these obligations in order to ride the project lifecycle successfully. When stakeholders are lacking in their responsibilities project managers needs to act upon it to make sure that the production improves (Consultant D, 2014).

4.6.2 **Motivation**
Individuals are triggered by different motivators, knowing them all is not easy (Consultant D, 2014). However, in Uganda, everyone is looking for money and the biggest factor for motivation is therefore money, earned one way or the other. This is the same for the members in a construction project; they are working for their salaries. So, the only incentives used on the project members are their salary (Contractor A, 2014) (Contractor B, 2014). To make sure that you get the full potential
of the members it is important to pay their salaries on time otherwise it can end up with people not showing up to work (Contractor C, 2014) (Contractor B, 2014). Performance based salary systems are used at some construction sites (Consultant B, 2014). The labour force can be motivated knowing that by performing well there is a possibility of a raise, therefore, by raising the salary of certain well-performing craftsmen in front of others could motivate the whole group (Contractor B, 2014). It could also be preferable to have allowance for overtime which can motivate workers to make more money (Consultant D, 2014) (Consultant B, 2014) (Consultant C, 2014). Depending on which calibre of staff you are dealing with the motivating styles will differ, therefore, as project manager, it is important to know your project coalition and staff to be well aware of which style to use (Consultant D, 2014) (Contractor B, 2014). However, subcontractors are automatically motivated by gaining good reputation by doing a good job (Ambitious).

4.6.3 Conflicts
The source of most conflicts is in the collaboration between the project manager and the contractor. There is a tendency of correlation between the amount of conflicts and the qualification and skills of a contractor. It is a bigger probability of conflicts with contractors that are less qualified and skilled (Consultant B, 2014). Mostly when a conflict occurs is when a contractor doesn’t follow the agreed contract. These issues are handled by arbitration in most cases, where a third party decides how the conflict should be solved (Consultant A, 2014) (Consultant C, 2014).

Conflicts from the perspective of the contractor are usually with their subcontractors and craftsmen. However, if there is a conflict with a craftsman, the person will receive payment until the time of the conflict and he will be replaced. The case could also be that he just will be moved to a smaller project with less pay as punishment. However, in Uganda, letting people go and replacing them with others is very easy (Contractor A, 2014).

The contractor’s work is in high grade dependent on a cash-flow provided by the client. Therefore it is important that the client is on time with payments to the contractor which usually is on monthly basis. If not, the work will stop, since the contractor does not have the money to continue (Contractor B, 2014). It is an issue for the project manager to make sure that the client makes these payments in time (Consultant A, 2014). There is also a tendency that the client wants to force the project to end earlier in order to gain more profit. These situations can result in conflicts between the project manager and other actors. To resolve conflicts, documentation and to meet in the middle line helps in most cases (Consultant A, 2014).

4.7 Corruption
Problems regarding bribes and corruption are a normal occurrence within the Ugandan construction market. The lack of institutional regulations and controls results in these types of problems.

Bribery is a problematic issue within the Ugandan construction industry. Companies and especially government officials are involved (Consultant C, 2014). Individuals with power positions within the Ugandan construction market have the mentality of trying to make as much money as possible out of projects. Providers of a service tend to inflate the price of the service to be able to take some of the money for themselves (Consultant A, 2014). The situation has worsened over the years leading to higher prices for construction projects (Consultant C, 2014). Corruption and bribery can have
different forms and shapes. One thing that can be known as a project manager, leading a construction project in Uganda, is that 40 per cent of the original budget will disappear in corruption and bribery, one way or the other, usually during the design and planning phase. Once a contractor receives a project with lacking budget, the lost amount needs to be found in order to complete according to the plan. These situations will lead to cuts in the quality in order to finalise projects or in some cases trying to relocate lost funds by stalling the production (Consultant A, 2014).

An explaining reason for the commonly occurring phenomena of bribes and corruption is the troublesome past of Uganda. The past is still fresh in peoples’ memories and the mentality of earning as much money as possible for self-interest whenever the possibility arises is still present. Another explanation of this phenomena is the “village mentality” that is highly present in peoples’ behaviour. Since it is common that parents only see their children as future investments, the villagers raise money to pay for school and university fees when a person in a village is discovered as bright and smart. That actual person might not be interested in construction or engineering work, however, the only goal for that person is to get a diploma and start making as much money as possible; in any way. The money earned will in first hand support the village and the villagers who helped and invested in that person. With time the person will get more established within the construction sector and learn more tricks, which will help to make more money that can be used for luxury cars, houses and wives. The overall issue is that people are not interested in construction projects but only in making as much money as possible. Foreign companies willing to invest in the Ugandan construction industry are worried about the high level of bribery and corruption cases. This affects the amount of, otherwise needed, foreign investments in the country. The solution to the problem is to build more capacity within the construction sector. Values and mentality of actors needs to be changed towards that project success should not only be valued by the level of profits but in terms of overall quality and gains for society (Consultant A, 2014).
### 4.8 SUMMARY OF EMPIRICAL FINDINGS

Table 1 summarises the findings from the case study that was collected through the interviews.

Table 1, summarises the primary data collected in Uganda.

<table>
<thead>
<tr>
<th>Findings</th>
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<td><strong>Formulating project mission</strong></td>
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<td>• Prioritising short-term benefits</td>
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<tr>
<td>• No quality and time standards</td>
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<tr>
<td>• Withholding of information within the project coalition</td>
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<td><strong>Mobilising the resource base</strong></td>
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<td>• Low collaboration</td>
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<td>• Lacking in-house competence</td>
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<td>• Complicated procurement processes</td>
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<td>• Prioritising of foreign competence</td>
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<td>• Lacking employment policies</td>
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<td><strong>Riding the project lifecycle</strong></td>
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<td>• Micro-management of actors</td>
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<td>• Lacking design and planning</td>
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<td>• Low use of ICT-tools</td>
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<td><strong>Leading the project coalition</strong></td>
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<tr>
<td>• No teambuilding efforts</td>
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<td>• Insufficient work conditions</td>
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<td><strong>Present state of construction industry</strong></td>
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<tr>
<td>• Lacking legislation and controls</td>
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<td>• Low educational level</td>
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5 Analysis

The analysis will draw connections between the presented theory and the presented case. These connections will be mixed with our own knowledge, thoughts and impressions gained during the field study in Uganda.

5.1 Defining the Project Mission

5.1.1 Time, cost and quality

When project mission or goals are defined in Uganda, it is a shared opinion between the majorities of actors to maximize their economic benefit. When the interviewees spoke about time, cost and quality, the majority stated that the goals of their participation in projects were to maximise the economic benefit and still meet the project requirements. That made us wonder how the requirements actually were met and how the requirements where formulated. From our experience from working and studying construction projects in Sweden, we have experienced a different way of speaking about time, cost and quality. In our experience project managers often talk about meeting the requirements of the project and still make a profit. This might just be a way of speaking more nicely; however, we found evidence from the interviewees that pointed at their cost priority over time and quality.

Ugandan clients seem only interested in how fast and cheap contractors can build. If a house is built fast and cheap, could it also be a good quality house? If quality is not mentioned in the clients’ interest then it cannot be highly valued. How could the quality not be important from the clients’ perspective? The answer could be that good quality is hard to define. In Sweden, there are standards to follow, norms and regulations such as euro codes developed for a standardisation of technical specifications, the interviewees did not mention any similar regulations being regularly used for project quality assurance. If the Ugandan construction industry lack norms and regulations regarding quality, or that these are not used or controlled, project quality is hard to define beyond what meets the eye.

Contractors are currently being chosen with regards to what types of projects they have being active in, not what quality they previously have produced. We do not see the reason in not measuring past performance in terms of quality. If a contractor has completed a project with low quality would mean that the actor lacks resource to complete similar projects. Generally, Ugandan contractors seem to have cash-flow problems, so the mentality to maximize profits is needed, especially when clients have to pay them on a monthly bases to avoid production stops. If contractors are able to make more money monthly, their resources would increase. Since labour seems easy to find and get rid of, contractors must get motivated to make more money in order to engage themselves in a higher number of projects. We believe that if contractors’ mentality is to maximize profit, they will do what is possible to lower the quality in order to accomplish this.

The competence level of Ugandan contractors seems low; therefore the aspect of time seems bendable especially if profits could be raised or maintained. Time planning in projects seems to be an issue in the Ugandan construction industry. In Sweden, we are used to rely on software for time calculations which contain the amount of time and resources needed to complete elements in
construction. On the other hand, the interviewees seem to rely on individual competence and experience in determining the amounts of time needed for production. This method must generate differences and uncertainties. Another issue is logistics; deliveries especially on the countryside of Uganda must be an issue in time planning. To know that deliveries will reach the construction site when planned is difficult. Road conditions in some parts of the country are so bad that even with a four wheel drive jeep it is difficult to manage, especially in bad weather. When driving around Uganda, we saw many delivery trucks in serious trouble. Another issue with logistics in the region is that Uganda is bordering several conflict zones such as the Democratic Republic of Congo and South Sudan; deliveries needed from these regions would generally be unreliable.

It was stated, from the contractors perspective, that their goal was to shorten the construction time in order to gain profits and that clients usually overestimated the amount of time needed. Others stated that contractors had difficulties in finalising projects on time due to their competence level. Corruption was stated by a majority of actors to be a common problem within the Ugandan construction industry. Corruption affects time, cost and quality of projects. With regards to time, if projects are stalled, time might be gained to relocate missing funds. When present in Kampala, we saw a number of ongoing construction projects. However, there was seldom any ongoing activity on the construction sites. An example is the on-going construction of a high-rise hotel in the centre of Kampala. Scheduled to open in 2007 it was still under construction in 2014. As a result we believe that time of production could be bent in favour of gained profits for the involved actors. On the other hand, considering that the design and planning phase, in some cases, are inaccurate, we believe that some projects are given unrealistic time plans with regards to the circumstances.

The time, cost and quality triangle is used as a theoretical preference in Ugandan construction project management. The industry is well aware of these three aspects of projects and that they are dependent of each other. However, we believe that instead of having quality on top of the triangle, the Ugandan construction sector have put costs as the parameter that will regulate time and quality. We argue that when maximising economic profits both quality and time of projects will suffer losses. If a project has a certain budget and profits are kept static, the parameters of time and quality need to be bent in order to keep the triangle intact. Furthermore, if there is corruption involved in the project, the triangle might be intact in the initial phase but disappearing funds create unbalance that needs to be compensated by lowering the priority of both quality and time.

In order to cope with the problem regarding time, cost and quality, efforts is needed to create national standards for both quality assurance and time planning of construction. However, most importantly actors need to switch their mentality towards a more long term perspective rather than concentrating on short term gains.

5.1.2 Project mission
In Uganda, the project manager is often a representative from the design and architectural engineering company. This generalization would mean that the project coalition consists of fewer actors compared with a similar project in Sweden. With fewer actors involved in projects, the reason for creating norms and values that correlates with the project mission is mitigating. The communication of goals is, as a result, between the project manager and the main contractor.
The contractor seems to come in contact with projects when the production phase is about to begin. The project mission is communicated from the project manager to the contractor mostly through the tendering documentation and meetings. The goals communicated seem task-orientated rather than mind-setting. Projects are run using stage-gate method where the contractor produces tasks and gets paid by the client through the project manager after finishing a stage. Regarding the competence level of contractors in Uganda, the method of simply giving contractors tasks to complete and perform micromanagement from the project manager’s side, is a working method. In projects, the communication of goals seems to be kept between managers which have the job of planning and delegating. The craftsmen or subcontractors at site level seem not to take part of the project mission or goals; they simply complete tasks delegated to them. On site level, in some projects, there is a Gantt scheme that managers use in order to understand what is needed to be done and when. The hierarchy in projects is high with the project manager on top and several layers below are the craftsmen producing the project. This method of running projects must lead to that a few people actually know what, when and how tasks are to be performed and confusion, delays and misunderstandings must be a common phenomenon.

Actors in Ugandan construction projects seem to have clearly divided tasks such as: plan, delegate, control or perform. These boundaries are not to be broken. The number of actors might be few; however, the number of engaged people in a construction project are significantly higher. The lack of and resources within the industry seems to be compensated with a high amount of people since the costs of labour is low. For the project manager and other management staff it seems time consuming to try to spread visions or norms to all project participants involved. The mentality seems to be that some people need to know what is going on and some do not need to take part in any other activities beyond their individual task.

Comparing the Swedish construction industry with the Ugandan, in Swedish, the cost of labour is high which leads to that the number of managers and craftsmen at site is kept to a minimum. The labour active in production is presumed to know what needs to be done and when in order to take decisions and work collectively towards the finalization of the project. In the Ugandan industry, there can be a higher amount of managers and craftsmen at site to perform different activities. When asking the interviewees about their labour force, we got the answers for example that they had 80 unskilled, 10 semi-skilled and 5 skilled craftsmen or managers at site. We believe that the unskilled actors would not even if they knew the project mission, understand it. In the Swedish industry it is common that regular meetings are held at site level between managers and craftsmen, here the craftsmen can give their input and get information about the project. These meetings are held because the craftsmen are viewed as experts in their area of competence and managers need to receive their input in order to manage the project efficiently. The managers on the other hand give the craftsmen information about the project goals and what other stakeholders’ needs are, so that the craftsmen would better understand how and what needs to be done and to raise their level of engagement in the project. If the Swedish craftsmen do not feel that they are part of the decision making process and their voice is heard or receive information, they might leave the company. The Ugandan industry seems different; here a person is lucky if they get a job and salary. In many cases, the person is supporting a number of other people with their earned money; it is even worth to risk their life for. To know why something is done, seems to be way beyond what they need.
Theories about spreading and communicating the project mission are done in Uganda to a certain extent. The mission or goals are shared between, managers and high ranked stakeholders in the projects. In the present state of the Ugandan construction industry, this seems to be working. However, to extend the information flow to other project participants could not be harmful. In order to raise the competence level within the industry, it would be beneficial to inform more participants and let them act more independently instead of mechanically. If competence is raised within the labour force, projects would get more effective. For managers to view the labour force as machines could not be beneficial in any economic environment.

5.2 Mobilising the Resource Base

General contracting through competitive tendering seems to be the only solution to procurement forms and none of the interviewees even mentioned another method as an option. Knowledge about different contractual forms is not there. Project management is a relatively new profession in Uganda, which can explain the lack of knowledge regarding different procurement forms.

It seems like clients has a lot of saying when it comes to choosing methods of how to lead projects, which contractual form to use, materials, companies etc. Innovations are not praised, instead the using of methods that already been tested is the way to go. The fact that clients do not have the resources to try out new methods that may be positive for the project makes it difficult for other contractual forms to take place. Taking risks and complicating things are not on the agenda and maximising the profit is the one and only goal.

Project managers are seldom involved during the design phase, instead the client appoint an architectural firm to do the design and planning. This makes it difficult to control the design and planning phase in an effective way, especially if the client does not have the needed knowledge about the construction industry. Therefore, a lot of money from projects is disappearing during this phase. The project manager, acquired for the production phase, will discover that the design and planning is made in a way that the project does not have resources to fulfil. This end up in cuts in quality since there has to be something that gets produced and brings profit for all the parties.

The lack of work and the hunt for money is making contractors take on any project given to them even if they do not have the resources for it; instead actors make it look like they have. To trust contractors or other actors, due to the desperation in the industry, are not possible, thorough investigations needs to be done by the project manager. However, the result of the projects is often not the best, due to the lack of competence of contractors and designers in the industry. It is not unusual, as actor, to use informal methods and deals to win bidding processes. The level of corruption may be a factor to this phenomenon. The project manager must be careful with principal agent problems and especially the adverse selection issue. Otherwise, this will lead to projects not being finished and overrun the resources of the project. However, improvements in the bidding process are being made by not only looking at the price, but also on the technical solutions creating a process of best value procurement.

The production phase is often divided in to several procurement processes and given to different contractors. This is due to the lack of competence, single contractors are not competent to take on a whole project and complete it. When the production phase is divided between different contractors
it will lead to misunderstandings and difficulties that does not benefit the project. That is why projects often change form to CM projects in Uganda, project managers need to be ready to take over from contractors and manage subcontractors. This whole process of changing contractors and contractual forms during the production phase must lead to stop in the production, delays and budget issues.

The lack of competence is a big problem within the industry. The overall competence in the construction industry needs to be increased, which can be done through educational institutions giving more knowledge to the industry in the long-term perspective. For this to be done the state must take action. Another opportunity could be to merge a design firm with a contractor firm to be able to deliver design and build projects to the clients. The only company with this kind of service is the governmental NHCC. If the co-operation between competent local companies was expanded this could raise the competence of companies and give understanding to each other’s professions. Companies are in general not too good in collaborating. Design and build is almost never used and neither is partnering contracts. Companies must expand their collaborative work to increase the quality and profits of projects. In some construction projects formal contracts between clients and contractors are missing, especially when there is no project manager acquired. These informal contracts contribute to misunderstandings and uncertainty in projects. To make the industry more formal is something to strive for in order to assure the quality of the projects and to guarantee payments.

5.3 STAFFING THE PROJECT
The troublesome past of Uganda with bad leadership and economic mismanagement, especially by leaders as Idi Amin, lead to a reduced activity in major sectors. People fled and the country was developing in the wrong direction. Those who stayed worked with whatever they could make business of and the educational capacity of the country ceased. This was 30 years ago, which is a relative short period to build up a functioning country and develop a formally working construction sector. The sector is young and developing, meaning that actors are few. However, the projects differ widely in character. To stay competitive, construction companies in Uganda take on any type of project that is given to them. On their internet sites they promote themselves as specialists on many different areas within construction. But due to the generally low competence, education and experience level, companies have a lack of specialist and could instead be described as companies with a broad but relatively low area of knowledge. This makes it a mission impossible for the project manager to find the appropriate competence for specific projects; instead they have to take what is offered on the market. Specialists and usable competence is commonly brought from abroad, from countries such as Tanzania and Kenya, where construction industries are more developed and since local subcontractors are still developing towards the same level. Bringing competence from abroad is a way of avoiding risks that comes with using local companies with less competence. This leads to that the development process of the local companies stagnates and profits leave the Ugandan society.

International companies see opportunities in the Ugandan market due to the lacking competence in the domestic construction industry. The gap increases between foreign and the local companies and if local industry is to catch up, more education and investment on the local sector are needed. The government should, for the sake of their own construction sector, give more responsibility to their
local companies when it is possible instead of bringing competence from abroad. This will keep the profits within the country and it will increase the local welfare. At the same time the local companies will get experience and can grow. Further, more educational opportunities for specialist competence should be given to the people by the government.

Craftsmen and other employees seem to be attached to a company more or less on informal premises. When there is work, the workers get gathered for that project. Formal employment, and the securities that come with it, as in Sweden is very rare. Employees get paid weekly for their work, and if the payment is absent the employee will easily disappear, preferably to another company. The employment system is inadequate if it is looked upon from the perspective of the Swedish norms and practices. There is no security for craftsmen and other employees at Ugandan companies. However, it is not an illegal system in Uganda and that is the root to the problem. If the government introduced legislation for the companies’ employment policy the employees would feel secure and could concentrate on their work instead of worrying if they still have a job in the end of the week. This would also give the possibility to the companies to have continuity within their staff and then it could also be possible to raise the competence by introducing education for employees.

Today, generally, craftsmen working at site level have no or little knowledge about construction and have to be micro-managed. The construction sites that were visited during the field study contained a very large amount of craftsmen, where every craftsman had a specific task to do. There was one construction site for a three storey residential housing with six new apartments and there were about 60 craftsmen that worked with plastering the framework, all of it with their bare hands and without aiding or safety equipment.

5.4 RIDING THE PROJECT LIFECYCLE

5.4.1 Formal communication
Formal communication channels, such as documentation, meetings and reports, are the main source of information exchange in Ugandan construction projects. Site meetings are planned and lead by the project manager on previously planned dates. Controls and reports are also retrieved by the project manager on a regular basis. We believe that this method of leading construction projects is also used by project managers in the Swedish industry. However, actors commonly come and go in Ugandan construction projects and production phases are run by different main contractors. This must lead to a situation where the project manager and other actors do not receive the needed time to get to know each other and break barriers created by different professions. These situations, where actors do not have enough knowledge about one and others practices, create trust issues among the actors. It is a possible answer to why Ugandan project managers need to use extensive micromanagement on actors in their projects for example; project managers seem to have full time project management representatives on site to control and lead contractors in their daily activities. We believe that this method of controlling projects is possible due to the low costs of labour. However, the practiced micromanagement of actors lead to that actor monitored will feel untrusted by the project manager. The competence level of Ugandan contractors must be very low since it is not enough to have weekly site meetings to ensure a functioning production. Daily monitoring is still needed on top of the weekly meetings.
Communication issues regarding foreign labour are easy to understand. If actors in projects do not speak the same language it is difficult to manage these in the same direction. However, in Uganda, most people speak English and the language is considered being one of the most commonly spoken international tongues. Since project managers in Uganda are fluent in English they have advantages in the international market, compared to for example Congolese project managers that are fluent in French.

External stakeholder opinions are, according to the interviewees, handled in the same way as in Sweden. Their opinions are considered and weighted into the project mission. However, we have difficulties in believing that this is actually the complete truth. In Uganda there are significant differences between people and people. Some individuals are living similar lives as rich people in the Western part of the world; others are living in extreme poverty. We do not believe that a person living in a shanty town in Kampala has the same rights, or that their opinions are considered in projects, as a person living in an upscale neighbourhood.

5.4.2 Informal communication
It seems as if the Ugandan construction industry is divided between formal companies and informal coalitions which operate as companies. These informal companies consist of groups of individuals which form company like structures or joint ventures. For example; a client provides funding for a project for a person who has connections within the construction industry. This person forms the project coalition informally by appointment of actors and together they complete the project mission. In these organisations we believe that most of the communication is handled informally using phone calls, emails and conversations. Some of the interviewees in the study where found using other actors informal networks of connections and partners. In these informal projects, misunderstandings are common and actors often do not receive payment for services and it ends up in delays and replacements of actors. However, it is proven that informally created group are more dynamic and can cope with changes or crisis more effectively than formally created groups which rely more on professional boundaries and obligations.

In formally based construction companies, informal communication is kept out of the decision-making process. Decision and delegation of tasks seem to be handled in formal meetings between actors. The interviewees stated the importance of decisions written down on contracts and signed by both parties in order to become valid. We believe that this way of handling projects are linked to the importance, in Uganda, to micromanage processes and those actors cannot be trusted to handle their individual tasks by managers. However, informal communication does occur in formal organisations, one example given by the interviewees was the use of spies in projects. For project managers to give craftsmen or other actors this type of tasks are very different from what we are used to in Sweden. To give a person the official tasks to spy on their colleagues is for us a worrying aspect in the Ugandan workplace environment.

The interviewees had knowledge about formal and informal communication channels and what their differences are. However, communication in projects is generally formal and the hierarchies are strictly followed. Project managers seem not to value actors handling problems individually and need to be present when decision regarding projects is taken. Informal communication is used in informal projects or to solve minor problems at construction sites.
To be able to raise the competence level for contractors, motivate and smoothen the production phase, we think that Ugandan contractors should be given more freedom to make their own decisions. The design and planning stage of projects needs to be improved by project managers in order to have better descriptions of projects. If the project documentation is improved and made easier to understand for contractors, they would be able to work more independently and micromanagement could be avoided. However, micromanagement might still be needed if contractors procured for projects not have the needed competence to follow instructions on paper and the need for project managers to practically demonstrate and control production exist. To have informally working spies or similar at construction sites is inhumane and must lead to a sense of not to being trusted by managers. The management style, which views craftsmen as children, is unprofessional. Many construction sites have for example a kitchen with cooks making food for craftsmen, to keep the craftsmen at the construction site on breaks. The managers believe that if the craftsmen leave the site during breaks they will return late. This proofs that trust for each other to complete tasks or being professional simply is not present in the industry. The Ugandan society is in urgent need of more professionals and education of their population. Having unions or similar organs to regulate companies on how they treat employees is needed to improve the situation and to raise professionalism.

5.4.3 ICT tools
Computer-assisted communication technologies, such as email and different software, are widely used within the Ugandan construction sector. However, the use of Computer-assisted decision-aiding technologies seems to be less common. Since it is possible to have internet access, by line, bundle or smartphone, in the overall Kampala area, we do not see the reason why companies are not using project databases to a wider extent. These databases could contain drawings and other project documentation for actors to share, which would lead to more efficient information retrieval than independently sent emails. Software such as CAD and Microsoft office are currently used. However, we believe that Microsoft excel is not designed specifically for project management and other software could easily be found on the internet market. This software could make the creation of e.g. Gantt and WBS charts more efficient. E-procurements and similar internet based activities are not mentioned by the interviewees when speaking about ICT-tools, we believe that such platforms do not currently exist in Uganda. Since major towns and cities have internet services, we suggest a wider use of the network in terms of previously mentioned aspects, further, actors need to create up to date webpages and e-commerce would aid the delivery process in the supply chain. However, internet is current only available in urban areas and between settlements the access is inadequate. Therefore before the situation improves, internet based activities at site level are only possible in projects which are situated in urban areas.

5.5 LEADING THE PROJECT COALITION

5.5.1 Co-operation
No major efforts are done to enhance the collaboration of project members. Teambuilding is out of the question, instead the project members will get to know each other while working and eating together at the site. In Sweden, the view of this topic is significantly different; projects often contain kick-off or teambuilding activities for the members to get to know each other. However, this can be
a result of the different cultures between countries. In Sweden, people are more shy and aware of
their private zone, which makes it difficult to let people in and come closer. In Uganda, the feeling is
that people are more social and open to each other and to new people. With that kind of culture,
maybe there is no need for a kick-off to make friends and understand each other.

However, the working conditions is not so highly valued and the relationship between the members
does not need to be perfect or even good. The project managers are, generally, not aware of group
building processes, so to manage the group through that process is not done. The most important
issue in project is that every member fulfils their individual task and it does not matter how the
atmosphere is. The only effort to keep the craftsmen together is to make them have lunch together
by offering them a simple lunch at the site. This method is also used in order to keep the craftsmen
at the site and not having them eat lunch somewhere else and waste time.

To raise collaboration between project members and to merge them more into group could not
harm the project instead of making them feel like individuals. Group activities, where members can
act together, could help the project members to feel like project team. However, in Uganda this can
be seen as unnecessary when the budget is constrained and the labour force is exchangeable.

5.5.2 Motivation

Basically, the only motivation factor used in Uganda is the salary and none of the other factors
mentioned in theory is used. If the job is done right the salary is the only incentive. Some project
managers can give permission for overtime work with additional money to the base salary as an extra
incentive. However, it is obvious that the salary is the most important incentive for employees. If the
salary is not paid in time the employees will not do any more work from that day. Another method
used was to give raise to an employee in front of the colleagues so that they know that if they
perform well there are possibilities for them as well. It is also believed that contractors are
automatically motivated to do a good job since a lot of work they get is from good reputation.

It can easily be assumed that Hertzberg’s two factor theory is not fulfilled at construction companies
in Uganda. The only criterion that is fulfilled is the salary. However, Hertzberg’s theory is probably
not valid in a country like Uganda. The people in Uganda and in their construction industry do not
need much to be satisfied and motivated, they are in a situation where they are pleased with having a
job that brings them some money. In Sweden and the West the situation is different and we usually
want more from our employers. Since the number of individual people in Ugandan construction
projects is high, companies seem to give each person a specific task to do, manage or perform. At
site level we witnessed craftsmen being divided into craftsmen and helpers. The helpers task was to
give the craftsmen material and the craftsmen where building. When the craftsmen where building,
new material was carried to the craftsmen by the people named helpers. We argue that, generally,
since many industries in Uganda are labour intensive and lacking in resources and technology, man
power has to compensate for this. Since industries are using man power instead of machines, jobs
are being tailored to accomplish needed tasks. This scenario gives opportunities to use Taylorism to
create jobs as the example describing the helpers at the construction site we visited.

However, the safety issue and the working environment is something to improve in Uganda,
whoever and wherever you are, the right to work in a safe place is a must according to us. The
offices visited in Uganda were very small and crowded with employees sitting next to each other
with space for one computer. Project managers often had their own office. Of course, the employees would be motivated and perform better if they got more space or even private space. The safety at the construction sites were very limited if even any. These issues needs to be tackled by legislations by the government and controls by the project management.

5.5.3 Conflicts
Conflicts often occur between the project manager and the contractor and the reason is commonly the lacking competence of the contractor. The conflicts are often solved with arbitration, which seem to be a relatively sophisticated system. Overall, the biggest problem for the industry and the origin for the most conflicts is the competence and money issues. Everyone is hunting profits and money to earn in anyway and almost everyone have lacking competence in their individual field.

5.6 Corruption
The problem of corruption is deeply rooted in the Ugandan construction industry. It is known that governmental officials in power positions are involved in these issues as well. Corruption affects the quality of construction projects which in turn will affect the benefits for the society. Due to the troublesome past of Uganda and the poverty level of the country, this mentality of earning money in any possible way is present in most peoples’ minds. To fix this problem the efforts need to begin at higher levels in the government. Only then, legislations can be initiated and the industry can be controlled. However, when the officials go hand in hand with the industry with these issues it is hard to imagine how the bribery and corruption is going to decrease in the nearest future. Since the Ugandan government officials are involved in corruption, we agree with theory and suggest that the present government might not be suited to handle the responsibilities of the construction sector. A lot of people we spoke to in Uganda, including most of the interviewees, spoke about problems regarding corruption. The project managers interviewed were all worried about this issue but at the same time it seemed like they were declared about the situation and just had to accepted it and adapt to it. When it appears in such large spectra as the interviewees describe, it is hard to see how this issue is going to get sorted out. However, we saw campaigns on posters around the country, for fighting corruption. So we believe that there is some sort of movement against it in Uganda.

6 Conclusion

6.1 Adaptation of Western Project Management in Uganda
Generally, project managers in the Ugandan construction industry are using Western project management theories and practices. Projects are being initiated and managed towards completion. Newly constructed residential houses, shopping malls, stadiums, roads and pipelines are given birth in a continuous development of the country. Even though that Western project management theories and practices are being adapted into the daily activities of Ugandan construction project managers, we conclude that this is done in a minimalistic way, which reflects the current standard of the industry and the development level of Uganda. When moving through the different phases of the project, managers apply needed parts of theory and practices in order to both secure profits and continue the finalisation process. However, the construction sector is still young and inexperienced;
therefore it is difficult for managers to apply more complex parts of theories and practices to projects. Further, management practices in Uganda are still developing from the basic level of showing an actor what needs to be done, paying to produce it and later control that it is completed. However, we do not see that the practices of construction project managers in Uganda are optimal and have spotted loop holes conducting this research where the current adaption of theories and practices could be improved.

6.2 IMPROVEMENTS USING WESTERN PROJECT MANAGEMENT

The Ugandan construction project management practices have both similarities and differences when comparing with the Western. It is therefore hard for us to define exactly what to adapt from the Western practices to improve the Ugandan construction industry. We believe it is more important to study the bigger picture to reveal the problems and obstacles that the Ugandan industry currently faces. The overall feeling we got from the study was that the Western industry is more mature and adaptable to theories and practices regarding construction management. The Ugandan focus, regarding short term benefits, especially profits, seems to be the only important aspect for actors when conducting a project. If that focus somehow could shift towards prioritizing quality, we believe, it would benefit the entire industry and further the society. National standards for both quality and time planning of construction projects would improve the situation.

For quality to improve there is an urgent need for more competence within the sector. The competence level is raised through education, at institutional level but also in practice at work. Engaging project members more in construction projects would not only raise the understanding for the particular project, but furthermore the knowledge gained could be beneficial in the future and raise the overall competence level. This could be achieved by implementing a more mind-setting approach to project missions rather than the currently practised task-oriented. In order for enhance productivity further; Ugandan actors need to raise their level of collaboration in all levels within projects. If actors would form partnering coalitions with incentives both the design and production phase would benefit. Current employment policies and the formation of unions need to improve within the construction industry. Employees’ job security needs to be raised beyond payments in order to switch managers’ mentality towards viewing the employees as assets worthy to invest in. As a result, employees could grow and develop in their line of profession. Having more governmental legislation, unions and similar organs to regulate companies on how they treat employees is needed to improve the situation of employees and raise the level of professionalism.

In order to further raise the level of competence in the local construction sector and to stimulate other markets, the clients need to raise investments in locally based actors instead of prioritising foreign. If profits and knowledge are leaving Uganda, it is not contributing to raise the welfare of the population. The most important issue is to end corruption; it is the root to why many projects are not becoming as successful as planned. If legislations against corruption exist it needs to be implemented starting at government level. The government needs to set an example for the rest of the actors to follow. If projects funding gets stolen in early stages, the results from the production phase and the benefits, for both actors and users, will suffer.

The following table concludes the major findings of the study. Project management activities are linked with suggested actions which with regards to Western construction project management
theories and practices would improve Ugandan construction project outcomes. A sector of governmental actions that could benefit the construction sector is added to the table as well.

Table 2, Describing actions, for improvements of the Ugandan construction sector and the outcomes of them.

<table>
<thead>
<tr>
<th>Action</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formulating project mission</strong></td>
<td>• Prioritise quality</td>
</tr>
<tr>
<td></td>
<td>• Quality standards</td>
</tr>
<tr>
<td></td>
<td>• Lifecycle perspective</td>
</tr>
<tr>
<td></td>
<td>✓ Raised quality</td>
</tr>
<tr>
<td></td>
<td>• Standards for time planning</td>
</tr>
<tr>
<td></td>
<td>✓ Accurate schedules</td>
</tr>
<tr>
<td></td>
<td>• Engage more actors</td>
</tr>
<tr>
<td></td>
<td>✓ Raised collaboration, understanding and competence</td>
</tr>
<tr>
<td><strong>Mobilising the resource base</strong></td>
<td>• Partnering contracts</td>
</tr>
<tr>
<td></td>
<td>✓ Raised collaboration</td>
</tr>
<tr>
<td></td>
<td>• Prioritise local actors</td>
</tr>
<tr>
<td></td>
<td>✓ Raised competence of local sector</td>
</tr>
<tr>
<td></td>
<td>• Formal employment policies</td>
</tr>
<tr>
<td></td>
<td>✓ Raised security and engages development of employees</td>
</tr>
<tr>
<td><strong>Riding the project lifecycle</strong></td>
<td>• Minimise micro-management</td>
</tr>
<tr>
<td></td>
<td>✓ Raised trust and independence</td>
</tr>
<tr>
<td></td>
<td>• Improve design and planning</td>
</tr>
<tr>
<td></td>
<td>✓ Improved instruction</td>
</tr>
<tr>
<td></td>
<td>• Implementation of project databases</td>
</tr>
<tr>
<td></td>
<td>✓ Enhance information retrieval</td>
</tr>
<tr>
<td><strong>Leading the project coalition</strong></td>
<td>• Group activities</td>
</tr>
<tr>
<td></td>
<td>✓ Raised collaboration</td>
</tr>
<tr>
<td></td>
<td>• Improve work conditions</td>
</tr>
<tr>
<td></td>
<td>✓ Enhanced motivation</td>
</tr>
<tr>
<td><strong>Governmental</strong></td>
<td>• Legislation and controls</td>
</tr>
<tr>
<td></td>
<td>✓ Mitigate corruption</td>
</tr>
<tr>
<td></td>
<td>✓ Mitigate safety issues at site</td>
</tr>
<tr>
<td></td>
<td>✓ Better employment policies</td>
</tr>
<tr>
<td></td>
<td>• Education</td>
</tr>
<tr>
<td></td>
<td>✓ Raised competence</td>
</tr>
</tbody>
</table>
Further Table 3 highlights western theories and practices that would not fit the present state and culture of the Ugandan construction sector. The reason to why each action might not be valid in the present time is clarified.

<table>
<thead>
<tr>
<th>Action</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulating project missions</td>
<td>☑ High standards for quality</td>
</tr>
<tr>
<td></td>
<td>☑ Competence level is low</td>
</tr>
<tr>
<td></td>
<td>☑ Engaging all actors</td>
</tr>
<tr>
<td></td>
<td>☑ Large number of actors</td>
</tr>
<tr>
<td>Mobilizing the resource base</td>
<td>☑ Design and build contracts</td>
</tr>
<tr>
<td></td>
<td>☑ Lacking competence</td>
</tr>
<tr>
<td></td>
<td>☑ Formal employment contracts to all</td>
</tr>
<tr>
<td></td>
<td>☑ Informality is still beneficial and allows more flexibility</td>
</tr>
<tr>
<td>Riding the project lifecycle</td>
<td>☑ End micro-management</td>
</tr>
<tr>
<td></td>
<td>☑ Actors still needs to be controlled due to lack of competence</td>
</tr>
</tbody>
</table>

### 7 Future research

Since the research set out to be exploratory it has revealed different issues regarding construction management in Uganda and further the country’s construction industry. For researchers interested in the Ugandan or sub-Saharan Africa construction industries to pick a topic revealed in this thesis, to dig deeper into, is easy. However, we suggest further research in issues regarding corruption in Uganda, since we regard this issue to be a worrying aspect within the industry. Another issue interesting issue revealed in the thesis is the lack of other contractual forms for projects than general contracting. It would be beneficial for Ugandan project managers to know to what extent other contractual forms could be implemented in the industry and how to further enhance efficiency of projects using a wider range of contractual forms.
8 References


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9 Appendix

9.1 Interview Questions

General questions
- Could you please describe this project? Size, duration, number of people involved? From which countries?
- What is your role in this project? What are your responsibilities?
- What previous experience do you have from the construction industry?
- What education / exams do you have?

Defining the project mission
- Which are the project goals? Which are most important and why?
- How are the goals communicated to the project members/subcontractors?
- What methods and tools are being used regularly to manage and control the project?

Mobilising the resource base
- What procurement form is being used and what are the main reasons for choosing this procurement form?
- How do you staff the projects? How do you do to get the right subcontractors and the right people?

Riding the project lifecycle
- Which consultants/subcontracts are involved in the different phases? (production, handing over)
- In what ways do you communicate in the project (internal communication) and with external stakeholders (external communication)? What channels and tools are you using?
- Do you have scheduled meetings regularly? If so, which ones, and what are the purposes of the different meetings?
- Do you use ICT-tools in the project? What tools?
- How do you work with progress control?

Leading the project coalition
- How do you make people and companies to co-operate?
- How do you make them motivated?
- How is the collaboration working between peoples? Are there conflicts occurring?
- In what ways are conflicts handled?