

**ASSESSMENT OF COMPETITIVENESS OF ARCHITECTURAL  
CONSULTING FIRMS IN TANZANIA CONSTRUCTION  
INDUSTRY**

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**M.Sc. (Construction Economics and Management) Dissertation  
Ardhi University, Dar es Salaam**

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CONSULTING FIRMS IN TANZANIA CONSTRUCTION  
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**By**

**FRANCIS, EMMANUEL**

**A Dissertation submitted in (Partial) Fulfillment of the Requirements for the  
Degree of Master of Science (Construction Economics and Management) of  
Ardhi University**

**Ardhi University  
October, 2017**

**CERTIFIATION**

The undersigned certify that she has read and hereby recommend for acceptance by Ardhi University a dissertation entitled: **Assessment of Competitiveness of Architectural Consulting Firms in Tanzania Construction Industry** in fulfillment of the requirement for the degree of Master of Science (**Construction Economics and Management**) of Ardhi University.

.....

Dr. Geraldine Kikwasi

(Supervisor)

Date: .....

### **DECLARATION AND COPYRIGHT**

**I, Emmanuel Francis,** declare that the work in this dissertation titled “Assessment of Competitiveness of Architectural Consulting Firms in Tanzania Construction Industry” was performed by me in the Department of Building Economics, under the supervision of Dr. Geraldine Kikwasi. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation has been presented and will not be presented at this or any other University for similar or any other degree award.

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## **ABSTRACT**

Architectural firms in Tanzania construction market are from different countries with different experiences and backgrounds.

The objective of this study is to assess competitive consistency of architectural consulting firms in Tanzania construction industry, also to examine the competitive strategies used by the architectural consulting firms, to identify factors affecting adoption of available competitive strategies and to recommend competitive strategies that will bring competitive consistency to architectural consulting firms.

The survey approach was employed to collect data from architectural consulting firms. Literature review, interviews and questionnaires were the data collection instruments. Data were analyzed using SPSS 20.00 and the findings were interpreted and appropriate recommendations were made.

The findings in this study showed that differentiation, cost leadership, focus and growth strategies are widely used by the architectural consulting firms. Also the study proposed out of all factors that affect implementation of strategies; uncertainty is by far most important factor influencing implementation of strategy in the firm.

These findings are important references particularly to those who want to conduct studies on competitiveness, to the new local architectural consulting firms and to those overseas architectural consulting firms for understanding the local architectural consulting business. While the data used in the analysis are collected from Tanzania architectural consulting firms, the findings provide useful references for conducting comparative studies between Tanzania architectural consulting firms and other countries or regions.

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**LIST OF ABBREVIATION**

ACF	:	Architecture Consulting Firms
AQRB	:	Architects and Quantity Surveyors Registration Board
CRA	:	Contractors Registration Act
DF	:	Degree of Freedom
ECF	:	Engineering Consulting Firms
ERA	:	Engineering Registration Act
ERB	:	Engineering Registration Board
GDP	:	Gross Domestic Product
HRM	:	Human Resources Management
IMD	:	Institute of Management Development
NBS	:	National Bureau of Statistics
NCC	:	National Construction Council
QSCF	:	Quantity Surveying Consulting Firms
SCA	:	Sustainable Competitive Advantage
SIG	:	Significant Value
SPSS	:	Statistical package for Social Science
UK	:	United Kingdom
T	:	T-Observed
TRI	:	Training and Research Institution
TZS	:	Tanzanian Shillings
WER	:	World Economic Forum

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the Study**

The construction industry is often known as very highly fragmented industry with a large number of activities involving different parties and professional such as consultants (Architects, Engineers and Quantity Surveyors), contractors, suppliers, financiers and others (Raut, 2011). By being a fragmented industry, management efficiency and competency in the industry is needed to gain a higher level of competitiveness. The needs for such an approach has become more important and more pronounced, not only due to the increased size and complexity of construction projects but also as a result of growing participation by international actors in local construction industry.

Competitiveness in the context of construction firms can be defined as the capabilities of construction firm to design, construct, engineer, finance, operate, maintain and/or manage any or all of the above mentioned activities better than its competitors (Ambastha and Momaya, 2004; Banwet *et al.*, 2003). It can also be defined as the ability of the firms to provide products and services in a more effective and efficiency way than its competitors and achieve and sustain superior performance in the industry (D'cruz, 1992). Health competition between firms encourages effective improvement in competitive strategies (Yisa *et al.*, 1996). Many other researchers (Porters, 1985; Betts and Ofori, 1992; Hu, 2001; Hitchens *et al.*, 2003) conducted studies on competitiveness and competitive advantages and they describe enforcing the right strategy is very important as rivalry is not limited to the

existing construction consulting firms but it expands to new entrants from both local and foreign consulting firms.

Samantha (2009) describes construction consulting firm as a firm run by one or more construction expert called consultant(s) who provides professional advice to an individual or an organization for all matters concerning the construction of the project from the initial stage to the final completion stage of the project. The members of the consultant team that are most required on the projects are the Architects, Quantity surveyors and Engineering Consulting Firms such as Service engineers and Structural engineers, but it can includes other discipline depending to the nature of the project. Samantha (2009) describes the responsibilities of the consultant on a construction project are set out in a standard form agreement between the consultant and the client. During construction, the role of consultants is to administer the contract as described in the contract document. Samantha (2009) explains that consultants have different roles in a construction of a project depending on the stage of the project; they have role during the design stage, during bidding and negotiation stages, during the construction contract administration stage and during the completion stage. Where the consulting services are lacking, there is no guarantee that the contractor can complete the project as per required standard and specification of the project. Olaniyi (2014) states that for the construction industry to attain the value for money and perform under economy base, the involvement of consulting firms to the construction project is very important.

The role and scope of services that consultancy firms offer are expanding continuously and parallel to the latest demands from the client and the construction industry (Hanid *et al.*, 2007). Management and administration approaches of

construction projects have been growing relatively steadily over the last decade while the consultancy services has come under strong criticisms within the construction industry (Ashford, 1998; Clark and Fincham, 2002; Pinault, 2001; Rosenberg, 2007). Among the criticism is competitive inconsistency which is due to the failure to embrace proper competitive strategies that will suit to the available new opportunities, new geographical location, new technology, new way of doing business and new entrants both local and foreign entrants. Competitive inconsistency is manifested in the variability of bids entered by individual bidders over a series of auctions (Drew and Skitmore, 1992). Furthermore, Alasadi and Abdelrahim (2009) describe one of the reasons for the increase in the rise and fall trend of firms in the construction industry is the existing competition among firms due to the easier entry barrier characteristic of the construction industry. Also the records of failed consulting project due to defective performance by both parties to employer-consultant contracts have been severely increasing (Appelbaum and Steed, 2005; Czander 2001; Fullerton and West, 1996; Sturdy, 1997). This increase defective performance implies that clients have no base of evaluation to get competitive consultant and also the consultant have no relevant action to improve their competitiveness.

The number of registered consulting firms in Tanzania by their respective bodies has brought the construction industry in Tanzania to be very competitive. This increase number of registered consulting firms has come together with the changes to the industry due to new technology advancement, research and active collaboration between the government and various professional bodies to promote continuous improvement in the industry.



Each year new architectural consulting firms are registered. Since the start of registration of the Architectural consulting firms in year 1998, the number of Local architectural consulting firms registered as per record obtained from AQRB on 30<sup>th</sup> June 2016 has reached 218.

As it has said above, that there is no limit of entrants, this number is expected to increase by the year 2017. Also following expansion of foreign consulting firms due to open market, globalization and the fast pace of change in information technology means that competition is no longer localized (DeNisi *et al.*, 2003). Consultancy firms differ from one another due to their level of establishment, the existence of small, medium and large consulting firms have resulted in a different level of competition for firms with strong reputation that are well established (Nazirah *et al.*, 2014). Such consultancy firms which are well established are at good position to secure new project, but smaller or new consultancy firms have to work hard in the beginning to build their reputation and gain the attention of new clients which will eventually turn to foster their competitiveness.

Yongtao (2008) explains that improving competitiveness is one of the most important objectives for the success of construction business and is the driver of the formulation of competitive strategy. In return, the competitive strategy will help consultants to utilize their resources effectively to achieve the objective of improving their competitiveness. But due to failure to embrace proper competitive strategies by some of the architectural consulting firms it has resulted to rise and fall trend of winning the project, while other consulting firms wins big project and they fail to maintain the trend of winning the project of the same nature, other newly established firms are down there with the average small projects struggling to prosper and win

big project. D'cruz (1992) describes that the understanding and findings on the strategies to improve competitiveness is important for the health of the firms and success of the firm's business, a well-defined strategy will lead the firm to identify their strength and weakness in the competitive environment. Porter (1985) has introduced three universal strategies: cost leadership, differentiation and forward strategies. Warszawski (1996) also introduced the growth strategy. Understanding and improving firm's competitiveness has been worldwide research concern area, this research will focus on assessing these four strategies and other strategies used by the architectural consulting firms, it will explore those factors affecting competitiveness, and it will provide information to support strategy development; it will also suggest strategies to improve competitiveness for Architectural consulting firms in Tanzania.

### **1.2 Statement of the Problem**

Architectural consulting firms in Tanzania are experiencing competitive inconsistency of winning the project. This has attributed to the rise and fall trend of architectural consulting firm on winning big projects and failure to maintain the trend of wining projects of the same nature while other newly established firms are struggling to prosper and win big projects. The survival and eventually the growth of the firms depend on the number or continuity of the project they secure without intermission. Architectural consulting firms needs to respond to new opportunities, new geographical location, new technology, new way of doing business and new entrants both local and foreign entrants. It is a long term goal to improve the performance of the industry and nurture an effective and healthy competition

environment in the local construction industry. This research has pointed on competitiveness of architectural consulting firms and strategies to improve their competitiveness.

### **1.3 Objectives of the Study**

The main objective is to assess competitive consistency of architectural consulting firms in Tanzania construction industry.

#### **1.3.1 Specific objectives**

- i. To examine the competitive strategies used by the architectural consulting firms.
- ii. To identify factors affecting adoption of available competitive strategies.
- iii. To recommend competitive strategies that will bring competitive consistency to architectural consulting firms.

#### **1.3.2 Research Questions**

This study address the following questions

- i. What are the competitive strategies used by the architectural consulting firms?
- ii. What are the factors affecting adoption of available competitive strategies?
- iii. What competitive strategies that will bring competitive consistency to architectural consulting firms?

### **1.4 Scope and Limitation**

The scope of a research is to define to what extent and what issues the research will address. In this study, the scope of the research focuses on assessing competitiveness of architectural consulting firms in Tanzania. Due to time constraints, limited

resources, the targeted consultancy firms in this study are the architectural consulting firms located in Dar es Salaam region because of its high rate of development in terms of infrastructure and relatively high concentration of consultancy firm which gives simplified access to the researcher to obtain data easily. Consultancy firms in Dar es Salaam region are selected because they represent the major characteristics of consultancy firms in Tanzania construction industry.

### **1.5 Significance of the Study**

Architectural consulting firm play an important role in promoting the development of construction industry in Tanzania construction industry. This study aims to determine the competitive strategies used by architectural consulting firms, it will helps architectural consulting firms to know the factors affecting the adoption of available competitive strategies and it will also help architectural consulting firms to identify their strength and weakness, improve their competitiveness and employ the right competitive strategies depending to the market competition situation in the construction industry. The result of the study provides valuable reference or guidelines for architectural consulting firms in Tanzania construction industry. Gaining and sustaining competitive advantage which is generally termed as competitive consistency is the most strategic tool to architectural consulting firms' business development. The improvement in architectural consulting business will in turn contribute to the health development of the local construction industry.

### **1.6 Research Methodology**

Kombo and Tromp (2006) describe research methodology as the methods and approaches that are used to collect and analyze data necessary to fulfill the research

objective. The choice of a good research method is the crucial key for a successful research. The main methods for collecting and generating research data are the questionnaire survey and the interview. Interview was conducted through phones by calling those architectural consulting firms so as to have their opinions on the keys indicators of consulting firms' competitiveness. The relevant literature review provide a basis for developing questionnaires, a series of questionnaire surveys was conducted to understand construction business competitiveness and strategies with reference to the Tanzania construction industry practice. The obtained data were used to assess consultancy firms' competitiveness and to point out the strategies to be used to improve consultancy firms' competitiveness. The targeted respondent from the developed structured questionnaire are all architectural consulting firms both public and private architectural consulting firms. Their list was obtained from the directories of their professional bodies. For the purpose of analyzing the respondent's opinion statistical method such as frequency analysis and mean response analysis were used.

Research methodology also presents the following section; research strategy, research design, study unit, population of the study, sampling design and data collection methods.

### **1.6.1 Research design**

According to Kothari (2004), research design provides the conceptual structure within which the research is conducted. In this research, the descriptive research design was used because it helps to obtain information concerning the current status of phenomena and also it describes what exists with respect to situational variables.

The specific category of descriptive research employed by the researcher in this research is field survey where questionnaires were physically given to respondents and interview was conducted to respondents through both on face to face at their offices and through the telephone. The sample population was obtained by using judgmental sampling due to time and cost constraints.

Survey research is employed in research to collect field data which is intended to gain community consent on formulating opinions and to measure attitudes (Naoum, 2007). Interview and Questionnaire research design have been used because they describe situations and they generalize the findings from the sample to the population.

a) Population of the study

Population of the study is defined as the entire set of objectives and events or a group of people which is the object of the research about which the researcher wants to determine some characteristic. In this study 218 architectural consulting firms both private and public architectural consulting firms have been covered.

b) Sample size

Kothari (2004) describes sample size as the number of items to be selected from the universe to constitute a sample. The size of the sample should neither be excessive large, nor too small but it should be able to fulfill the requirements of efficiency, representativeness, reliability, and flexibility. The sample size for this study was 44 architectural consulting firms.

c) Sample selection

Simple random sampling and non-random sampling are the two approaches of sample selection adopted in this study.

Kothari (2004) refers simple random sampling as the method of sample selection which gives each possible sample combination an equal chance probability of being picked up and each item in the entire population to have an equal chance of being included in the sample. Simple random sampling was used to select consulting firms from public architectural consulting firms and private architectural consulting firms. Also Kothari (2004) describes non-random sampling which is also known as deliberate sampling, purposive sampling and judgmental sampling as the sampling procedure which does not afford any basis for estimating the probability that each item in the population has of being included in the sample. Non-random sampling has used in this study to select architectural consulting firms based on accessibility and reliability factors.

### **I.6.3 Data collection methods**

Data collection is the process of search for answers to research questions, while the data, facts and other relevant materials, past and present, serving as the bases for study analysis (Kothari, 2004). In this study, three types of data collection methods were used;

- a) Interviews which were used to explore issues of study to get the behavioral perceptions and generate a list of key competitive indicators of Architectural consulting firms.
- b) Questionnaire survey was used to get the opinion and attributes from the selected respondents.
- c) Literature review on various documents explaining about competitiveness in the construction industry.

#### **1.6.4 Data analysis**

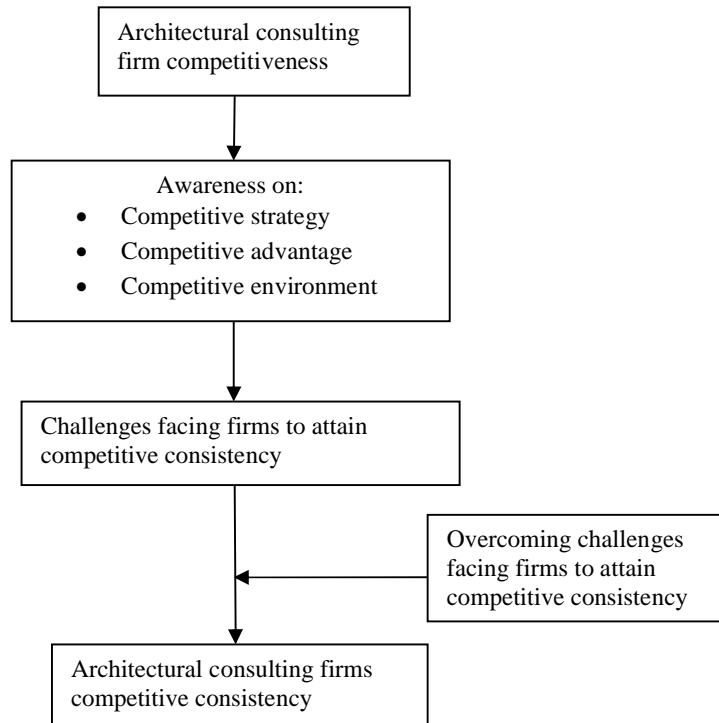
Data analysis and interpretation was carried out by means of descriptive analytical designs using the statistical package for social science (SPSS) version 20.00 with the outlines and objective digestion of the key relationships (i.e. both similarities and indifferences) of the variable and attributes of the study.

#### **1.7 Conceptual frameworks**

House and Howe (1999) describes conceptual framework as the visual or written product that explains, either graphically or in narrative form, the main things to be studied as the key factors, concepts, or variables, and the presumed relationship among them. Conceptual framework contributes to the formulation of research design and analysis of data (Kombo and Tromp, 2006).

Figure 1.1 represents the conceptual framework of the study showing different concept contributing to the understanding of competitiveness.





**Figure 1.1: Conceptual Frameworks**

### 1.8 Chapter summary

This chapter introduced the subject of the research study, statement of the problem, objectives of the research, research questions, and scope of the study and significance of the study, brief introduction on the research methodology and analysis, and conceptual framework. Next chapter provides a literature review under which key issues related to research study are covered by referring to previous researches, books and journals.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter gives a critical summary and assessment of the available materials explaining about competitiveness of consulting firms. It involve descriptive and analytical forms, where in descriptive form it describes the works of previous writers and in analytical form it critically analyzing the contribution of other writers with the view of comparing competitiveness model used by other firms in the construction industry.

#### **2.2 Construction industry in Tanzania**

##### **2.2.1 Tanzania Construction Industry Policy (2003)**

Tanzania Construction Industry Policy aims at creating an enabling environment for the development of a vibrant, efficient and sustainable local industry that meets the demand for its services to support sustainable economic and social development objectives. Its vision is to have a dynamic, efficient and competitive local construction industry that is able to undertake construction projects of any magnitude and participate effectively in providing its services in the regional and global marketplace. The mission is to create an enabling environment for the development of a vibrant, efficient and sustainable local industry that meets the demand for its services to support sustainable economic and social development objectives. The goal of construction industry is to develop an internationally competitive industry that will be able to undertake most of the construction projects in Tanzania, export its

services and products and ensure value for money to the industry, clients as well as environmental responsibility in the implementation of construction projects.

Tanzania Construction Industry Policy (2003) defines construction industry as a sector of the economy that transforms various resources into constructed physical economic and social infrastructure necessary for social-economic development. It embraces the process by which the said physical infrastructure are planned, designed, procured, constructed or produced, altered, repaired, maintained, and demolished. Again Tanzania Construction Industry Policy (2003) describes industry comprises of organizations and persons who includes companies, firms and individuals working as consultants, main contractors and sub-contractors, material and component producers, plant and equipment suppliers with clients and financiers. Kenny (2007) explains that the construction sector role in economic development is huge and undeniable. Within most developing countries, the domestic construction industry is made up of a few large firms, often state-owned, and a large number of small firms. In Tanzania the government is involved in the industry as purchaser (client), financier, regulator and operator (Ntiyakuze, 2011).

### **2.2.2 Major institutional players in Tanzania construction industry**

The construction industry in Tanzania includes companies and firms working as consultants (Architects, Quantity surveyors, Engineers), contractors, sub-contractors, materials and component producers, plant and equipment suppliers, builders and merchants. It is overseen by the following major institution: The Ministry of Works, Transport and Communications representing the Government; the National Construction Council (NCC); the Tanzania Bureau of Standards (TBS); Training and

Research Institution (TRI); the Contractor Registration Board (CRB), the Architects and Quantity Surveyors Registration Board (AQRB), the Engineering Registration Board (ERB) and Professional associations. Also For the institutions to perform their duties effectively, laws and regulations are important keys to be taken into consideration in the construction industry. Companies engaged in construction related activities are required to register to their professional boards before rendering any services to the public. The laws applicable to the registration of construction professional includes: Contractor Registration Act, 1997 (CRA); the Engineering Registration Act, 1997 (ERA) and the Architect and quantity Surveyor registration Act, 2010 (AQRB).

### **2.2.3 Construction Industry status**

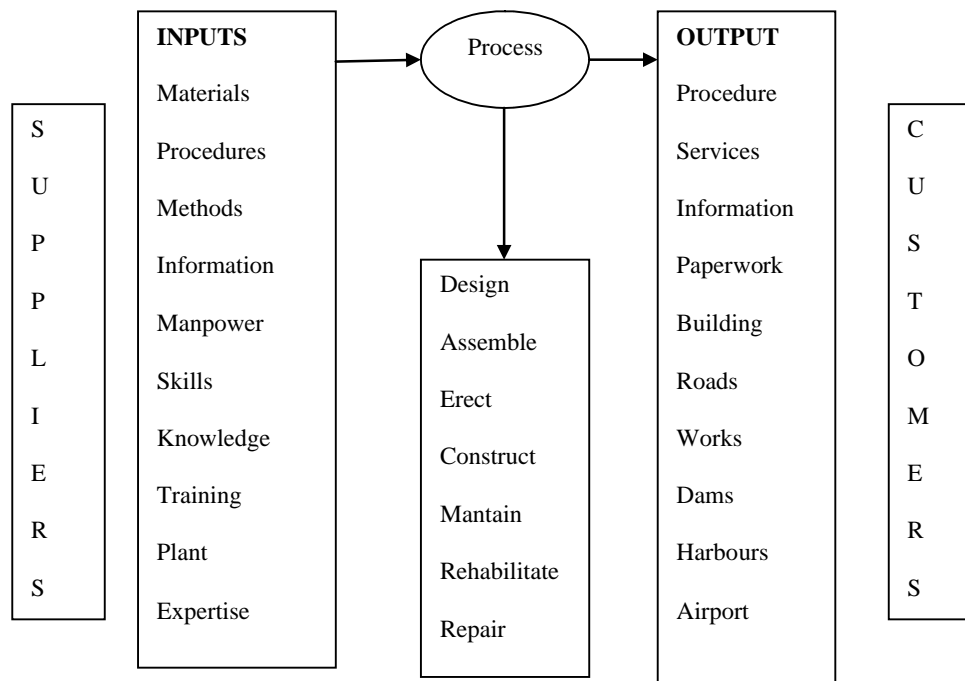
The construction industry plays a significant role in Tanzania's economic growth. According to NBS (2015) the sector contributes to 13.6% of the gross domestic product (GDP) during 2015 and 9% of the employment in year 2007. According to National Bureau of Statistics (NBS) on Tanzania construction sector report of 2016 in the first quarter, the growth rate of the Tanzania construction sector was 4.3% in the first quarter, compared to 23.2% in the first quarter of 2015. NBS (2016) describes the slowing of the growth rate was due to reduced investments in construction activities. However, despite the constraints that are facing the construction industry, the government has continued improving the conditions in order to improve the working environments of both contractors and consultants in the country (Kasanda, 2013). Among the government improvement effort to construction sectors according to NBS (2016), for the fiscal year 2016-2017 the government of

Tanzania has budgeted TZS. 5.47 trillions equivalent to 25.4% of the total budget, excluding debt service, for infrastructure development projects. Again through the country construction policy of 2003, the government has aimed at, providing mechanism to improve capacity and performance of the local contractors and consultants; improving public sector delivery capacity; improving the performance of the informal construction sector; promoting export of goods and services; improving quality and productivity; promoting technological development, promoting sustainable construction practices; mobilizing adequate financial resources; enhancing availability of construction equipment and supporting poverty eradication. If all these are well implemented, it will lead to competitiveness in the construction industry.

Another factors affecting the construction industry were described by Chiragi (2000), such factors includes: inadequate co-ordination of planning between construction industry and other sectors of the economy; heavy dependency upon foreign resources such as technology and materials; inadequate incentives and motivation of workers; inadequate team member of adequate and qualified experience personnel, transport bottleneck to the distribution of construction materials; inadequate relevant local construction regulation and standards; inadequate consideration given to the local resources; inadequate co-ordination of planning management and control of public projects by various public institutions other than ministry responsible for works resulting in confusion of works and activities; the government as the main investor having few public consultants and contracting organization; and inadequate working capital at firm capacity and building sub-sectors.

### 2.2.4 Products or service in the market

Marketing in the construction industry is defined as finding information about the economy, the client and competition. It was also found to mean having the goods at the right time, in the right place and at the right price (Wheeler and Woon, 1987). Like other markets, the construction industry market of Tanzania undertakes many activities involving the supply side and the consumer side, with the basic parts of inputs, processes and outputs for consumption. Figure 2.1 below shows details of the activities that takes place between suppliers and customers.



**Figure 2.1: Activities in Construction Services Business (Lema, 1996 and Oakland, 1995)**

### 2.2.5 Markets available in construction industry

Different sizes of construction firms are needed, considering the various markets that are available to the construction industry. For example, Hindle (1997) gave a

hierarchy of markets for the construction industry, showing the level of technology required and the expected participation of different types and size of contractors. This is shown in figure 2.2 Informal and small formal firms can operate at the low end of the market, where the technology and managerial skills involved are also on the low side. According to Hillebrandt (2000), there are few large projects and many small projects. Hindle (1997) also stated that large firms which undertake large projects are few and small firms which undertake small projects are many.

TECHNOLOGY/MANAGEMENT SKILLS

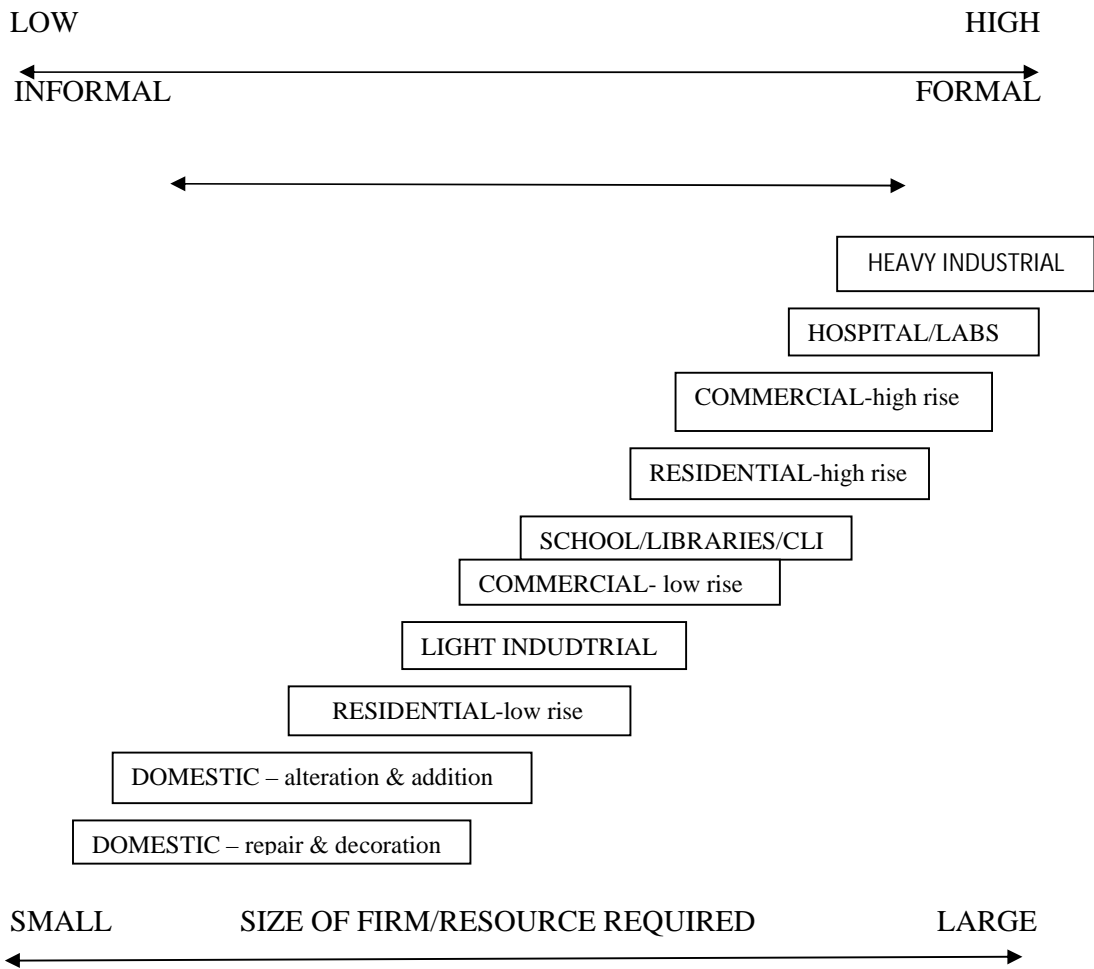


Figure 2.2: Hierarchy of markets for business construction (Source: Hindle, 1997).

### **2.2.6 Appropriate market Entry strategies for local construction firms**

#### a) Competitive service delivery mode

Local construction firms enter the domestic market and compete with firms in the short and long run. The business of the firm must be better than that of the competitor as regards competitiveness. This can be difficult for local construction firms but it can be done through working on five performance areas as suggested by Slack (1991). Such areas are making things right; making things fast; making things on time; changing what is to be produced or delivered; and making things cheap.

#### b) Joint venture or strategic alliances mode

Local firms can also enter the market by joining forces with other local firms or foreign firms already operating in the domestic market in the areas of management, financing and decision making. It is a higher risk mode as joint ventures entails a degree of resource commitment. Joint venture may also be known as strategic alliances (Johansson, 1997) and include all forms of distribution, manufacturing, and research and development alliances.

#### c) Partnership mode

Local firms can form partnership with other firms operating inside or outside the country especially in the areas of sub-contracting, research and development, training and tendering.

### **2.3 Consulting firms**

Samantha (2008) describes construction consulting firm as a firm run by one or more construction expert called consultant(s) who provides professional advice to an individual or an organization for all matters concerning the construction of the



project from the initial stage to the final completion stage of the project. Consulting firms in construction industry mainly include, Architecture consulting firms (ACF), Engineering Consulting firms (ECF) and Quantity Surveying Consulting Firms (QSCF) and these firms are registered and regulated by regulatory bodies concerned. Architectural and Quantity surveying consulting firms are regulated by Architects and Quantity Surveyors Registration Board (AQRB) and Engineering firms are under Engineering Registration Board (ERB). During construction, the role of a consultant is to administer the contract as describes in the contract documents. However, the contract documents do not reference the agreement between the owner and consultant which outlines the professional services to be provided to the project (Samantha, 2008). The contractors should make themselves aware of the arrangement in place between the owner and the consultant and understand the scope of that arrangement at the outset of the project. With increased awareness and understanding, all parties can benefit from the advantages of having a consultant involved in the construction process. With a clear understanding of its obligations, the consultant can better carry out their obligations to the owner.

### **2.3.1 Roles of consulting firms**

The role of consultants has been given different heading depending to the stage in which the consultant is involved in the project. Samantha (2008) describes the following roles of consultants at different stages:

#### 1) The role of the consultant during the design stage

Involving the consultant at an early stage of the construction project is often beneficial for the owner. In fact, a consultant may even be involved at the pre-design

to assist an owner with task such as project budgeting and management, site selection, space relationship and environmental studies. The design stages constitute schematic design, development stage and construction document. According to Hanson and Samantha (2012) during the design stage itself, the consultant determines the feasibility of the project from an artistic, technical, logistical and financial standpoint. The consultant creates project design concept and seeks approval for this design concept. It is also during this stage that the consultant obtains the required development permit for the project.

a) Schematic design

During the schematic design stage, the consultant determines the feasibility of the project. The consultant considers and proposes the preliminary concept and estimated cost of the project. In making its proposal regarding the concept and cost of a project, the consultant must review and consider the characteristics of the chosen site, various design approaches, the types of construction contracts, and structural, mechanical and electrical design concepts, amongst other things (Hanson and Samantha, 2012). Whether the consultant is an architect or an engineer, he or she will have to coordinate with his or her counterpart at all stages of the project's development.

b) Design development

According to Hanson and Samantha (2012) at this stage the consultant will take a more in depth look at some of the items considered during the schematic design stage, and coordinate and develop the actual design of the project. They also suggest that it is the consultant's responsibility to determine which licenses and permits must be obtained and advise the owner regarding the same.

### c) Construction documents

The consultants are responsible for the specifications, plans and drawings related to a project. Unless timelines are specifically accounted for in a contract, the consultant is under an implied obligation to provide the owner with the specifications, plans and drawings within a reasonable time.

### 2) The role of consultant during bidding and negotiations

The consultant represents the owner and acts as the owner's agent in the preparation, issuance and supervision of tender documents. The consultant also prepares, or coordinates and issues the addenda to the tender documents, if needed. Once bids have been received, the consultant evaluates them and consults with the owner about them. In one case, the structural engineering had no contract with the owner; rather, the architect had hired him. If the tender documents omit or provide inaccurate information, the consultant must draw this to the contractor's attention. If new information or errors come to light after the tender documents have been issued, the consultant must ensure that all the contractors interested in bidding receive an addendum correcting the deficiency. If the consultant does not comply with this process, the consultant or the owner may be liable to the contractor for any resulting harm (Sarda and Dewalkar, 2016).

### 3) Construction contract administration

During the construction administration, the consultant owes a duty to the owner to ensure that the contractor abides with the terms of its construction contract and that it follows the plans and specifications in constructing the project. The most common way for the consultant to ensure that the construction contract is being adhered to is

through on site filed review (Hanson and Samantha, 2012). Under construction contract administration there are:

a) Field reviews

This has defined as the review during visits to the place of the work (and where applicable, at locations where building components are fabricated for use at the project site) at intervals appropriate to the stage of the construction that the Architect, in his or her professional discretion, consider necessary to become familiar with the progress and quality of the work and to determine that the work is in general conformity with the construction document (Samantha, 2008). While the consultant is not expected to be at the project site all the time of the construction, then a qualified person acting on his or her behalf, should be at the project site during all significant phases of the project. The contractor has a responsibility to ensure the consultant knows when the project is advancing from stage to stage.

b) Change order

Samantha (2008) describes it is not uncommon for consultant to have the contractual authority necessary to order changes or additions to the project. At times, the project drawings and specifications the consultant created have to be amended after the actual construction of the project has begun. The necessity for a change order may be the results of changes made by the owner or the consultant, deficiencies in the drawings and specifications, and through unexpected difficulties in the physical conditions of the site or in obtaining necessary materials for the project.

#### c) Impartial Adjudicator

The consultant has the authority to resolve all claims or disputes relating to the performance of the work or the interpretation of the contract documents, or any other matters where the parties have failed to agree, and agreement is required (Samantha, 2008).

#### d) Payment Certifier

Samantha (2008) describes that construction contracts differ from other contract in the sense that under construction contracts, the payment can be made to the team involved in construction before the entire project has been completed. The construction contract will typically outline a number of phases or intervals at which the contractor is entitled to progress payments, and the amount of payment the contractor is entitled to be paid. It is the consultant's responsibility to determine when these phases have been successfully completed by the contractor, and when the contractor is entitled to payment.

#### 4) Post-completion inspection

The consultant is responsible for inspecting the project once it has been completed. Consultant must make comprehensive post-inspection on structural, mechanical and electrical. Once the consultant considers the work to be complete, he or she can issue the final certificate for contractor payment (Samantha, 2008).

### **2.3.2 Firm relationship with various parties**

Like other organizations, consulting firms are also involved in various relationships with different parties, including relationship with clients, government departments, with other consulting firms, creditors, with contractors, and suppliers. Clients offers

architectural consulting firms the role of representing him/her to the contractor-client contracts. Government departments make relevant regulations. Other consultants such as Quantity surveyors and engineers provide consulting services for clients. Creditors provide financial support for both consultants and contractors and suppliers provide necessary materials and equipment for completing the construction work. Establishing good relationships with these parties enable architectural consulting firm to have more opportunities to obtain construction contracts and improve the efficiency of the construction work (Tan, 2008).

#### a) Relationship with clients

Clients are among the most important actors in a construction industry. They may either come from the public or private sector, may be frequent or once. Typically, architectural consulting firms establish relationship with clients by meeting their demands of representing the client in client-contractor contracts for a constructed facility (Samantha, 2008). Architectural consulting firms utilize contract document to settle any addressed problem by a contractor that may occur in the construction process. However, there are limitations to contract document especially for those large projects since these do not encompass the whole risks of the project (Clegg, 1992; Gardiner and Simmons, 1992). Furthermore, contract documents could not totally solve the problem of bad faith since a dispute resolution process is inconvenient and costly for most clients (Dimaggio and Louch, 1998). Hence this fact compels clients to be very careful in selecting consultants who will best represent him/her to avoid enter into such cost. Clients also collect information pertaining to architectural consulting firms from their previous clients, other

consultants and their compliance with regulations. Therefore, developing and maintaining good relationships with different parties would not only enable architectural consulting firms to efficiently carry out the current work, it also creates a competitive advantage window for them to win more contracts in future. Tan (2008) explains architectural consulting firms develop their relationships with clients often through approaching higher level of contract administration, consulting for higher quality products and services, complete projects on time and keep the construction costs in a low level, and cultivating corporate brand. Also Tan (2008) explains private clients normally prefer to appoint consultant by negotiation rather than to engage an open tendering process which consumes more both time and cost. On the other hand, development of relationship between architectural consulting firms and private clients will build up the trust between each other. Both sides will get benefit from better relationship and win-win results. This will happen particularly after several successful co-operations.

#### b) Relationship with Government Departments

Similarly, architectural consulting firms have to establish relationships with relevant government not only because these departments enact relevant regulation, but they are also major clients in construction industry (Samanta, 2008). In Tanzania, one of the major methods in setting up relationship with the government departments is to be on the list compiled by various government departments. Establishing good relationships with these departments enables architectural consulting firms to have opportunities to get information about future policies and improve the winning probability in competing for the public works (Tan, 2008). The possible methods to

establish these relationships could be on the list of approved consultants for the public works, keep good performance record in public works, and take an active support to these departments' work. Good relationship with government departments would be a competitive advantage in competition.

#### c) Relationship with other consultants

The relationship between architectural consulting firms with other consultants within the ongoing construction projects increases the strength between client-contractor relationships. Typically, professional consultants (architects, engineers, surveyors) act as the clients' representative which assists the latter to solve both technical and managerial problems in the construction process (Samantha, 2008). Regardless on the kind of relationship between these parties, it is quite obvious that a good relationship between them can significantly influence the project's outcome. Thus, successful transformation of the consultants' conceptual ideas into reality depends on the open communication and effective coordination between these parties. Moreover, good relationships that were established in previous projects can become a consultant's competitive advantage when bidding for new project (Tan, 2008). Nevertheless, it is important for consultants to ensure efficiently deliver projects and obtain more contracts via contractors' or other consultants' recommendations.

#### d) Relationship with creditors

A harmonious association with creditors will improve consultants' financing capability. In fact, having enough capital is very crucial for certain kinds of projects, like in the case of a Private Public Partnership. In addition, consultants are obliged to find all possible ways to secure financial support during the competition process.



Likewise, the government financial assistance plays an important role in developing a strong domestic industry and improving consultants' competitiveness (Tan, 2008). It is difficult for domestic consultants to raise enough finance to improve and develop their technology. Consultants need to prove to the banks their profitability and the ability of repayment. Long-term cooperation will also help build up the mutual trust between consultants and creditors and make it easier to get financial support from creditors. Generally, having good relationships with creditors would enable consultants to receive adequate financial support to implement their competitive strategies, and consequently sustain their competitive advantage in the industry.

#### e) Relationship with Contractors

In reality, the relationship between consultants and contractors is an extension of the client-contractor relationship. Architectural consulting firms provide consulting services to contractors and eventually develop into a direct association. Similarly, a good relationship between them can significantly influence the project's outcome (Samantha, 2008). Moreover, good relationships that were established in previous projects can become a consultant's competitive advantage when bidding for projects.

#### f) Relationship with suppliers

Tan (2008) explains construction materials are one of the major parts in a construction process. Contractors commonly procure these materials from the materials suppliers in accordance of consultants' specifications, which is eventually become a form of relationships. To avoid the risk of relationship invariability which has great impact on contractor's performance both consultants and contractors hold

meetings with suppliers to improve the procurement process (Tan, 2008). As a result, this frequent cooperation enables both parties to learn how to effectively coordinate and to develop trust as well as communication routes. Therefore, establishing long-term cooperation relationship with key suppliers can improve the efficiency of the construction work and improve consultants' competitiveness.

### **2.3.3 Firm internal resources and capabilities**

Hunt (2000) describes organization resources and how they are used is taken an integral part in an internal environment analysis. Therefore, analyzing the internal resources and capabilities such as corporate image, technology and innovation, marketing capability, financial capability, project management skills, organization and human resources are critical for consultant to understand their competitiveness and develop their competitive strategy (Tan, 2008).

#### **a) Corporate Image**

An organization's reputation is established by the opinion of customers towards company products or services. Therefore, reputation management is increasingly becoming an important factor for business success (Griffin, 2002). As for clients and its advisors, the manner in which the project was executed to achieve its measurable objectives is important. Basically, reputation is built from the continued success of projects and has to be communicated in more explicit ways than picture or normal reports. Also the properties of products and services that foster reputations can emerge through customer search activity, comparisons with other similar product or services, and immediate consumption or through long term experience (Tan, 2008).

#### b) Technology and innovation

Innovation can also be another source of distinctive capabilities. Its process involves the complicated interactions between firms (Kay, 1993). However it is often difficult to create a competitive advantage through innovation because it is costly and uncertain. Furthermore, it is hard to manage and secure rewards for firms through innovation alone it need to be linked with other distinctive capabilities, particularly in organization structure. The research findings indicate that innovation in construction has become increasingly important in competition (Bossink, 2004). On one hand, innovation would provide consultants an edge in competition. On the other hand, this would also be an important force that will propel the industry to evolve.

#### c) Financial capability

In construction industry, either one is performing as a consultant or contractor financial ability is considered as an important factor when competing for construction works. As such financial capability is mostly deliberated during pre-qualification and selection procedure for both consultants and contractors (Lem *et al.*, 2000; Wong *et al.*, 2000; Hatush and Skitmore, 1997; Jennings and Holt, 1998).

#### d) Marketing Capability

There are many definitions for marketing. The Chartered Institution of Marketing has provided a detailed definition as “ management function which organizes and directs all those business activities involved in assessing and converting purchasing power into effective demand for a specific product or services and in moving the product or services to the final customer so as to achieve the profit target or other objectives”

(CIM, 1973). Meanwhile, Woodruff (1995) defined marketing as “identifying and satisfying the needs and wants of consumers by providing a market offering to fulfill those needs and wants through exchange processes profitably”. The central theme of these definitions emphasize on the management’s process of identifying the customers’ requirements, and for satisfying them while bringing profit to the company. Typically, marketing plays a key role in construction firm’s strategic management, especially during times of recession. The basic objective of marketing orientation is to meet customer needs and requirements. Embedding methodologies such as service quality, customer service, customer focus and orientation, customer satisfaction and customer retention and loyalty into the company culture can help sustain firm’s competitive advantage, increase customer loyalty, and improve company’s performance (Tan, 2008).

#### e) Project Management Skills

The construction performance relies extensively on project team work and problem solving at the site level. Hence, project management skills that are embedded to the teams are important for the project’s success (Tan, 2008).

The construction industry’s business climate is becoming more dynamic since most consultants face increasing competition even in this declining market (Gretton, 1993). In such condition, several consulting companies have begun questioning traditional project management philosophies and principles, which developed new demands for quality, productivity and performance (Hayden, 1996). Project managers usually find themselves playing additional roles that have not been part of their responsibilities ever since (Gilleard and Chong, 1996). In order to maintain its

competitive advantage in the future, a consulting firm has to focus more on adopting a project management function with reference to the changing industry conditions (Tan, 2008). Evidently, there is increasing demand for improving the performance of project management. A modern project management practice demand for additional knowledge that even extends beyond the technical aspects of traditional consulting areas. Such additional knowledge will include the following areas (Edum-Fotwe and McCaffer, 2000):

- Finance and accounting
- Sales and marketing
- Strategic planning
- Tactical planning
- Operational planning
- Organizational behavior
- Personnel administration
- Conflict management
- Personal time management
- Stress management

f) Organization and human resources

*Organization Structure:* An organization structure is a formal framework by which organization tasks are divided, grouped and coordinated. The challenge is to design an appropriate organization structure that can facilitate employees to work effectively and efficiently (Tan, 2008). The primary aim of an effective organization structure is to achieve organization goals within the direction of a firm's strategy

(Galbraith, 2002). Accordingly, structures vary among organization in terms of strategy, size, technology and environment uncertainty (Lawrence and Lorsch, 1969). Drucker (1990) argues that an appropriate organization structure design is important in determining an organization's performance. Specifically, an appropriate organization structure has to meet the following objectives (Saal and Knight, 1988):

- Economic and efficient organization performance and resources utilization
- Monitoring of the organization's activities
- Accountability for areas undertaken by groups and individual members of the organization
- Coordination of the various organization parts and areas of work
- Flexibility responding to developments and future demands, and in adopting to changing environments
- The social satisfaction of members working in an organization

If an organization structure meets these objectives, their aims will be achieved with high performance. Otherwise, the organization will suffer from deficiencies, such as low motivation and morale, late and inappropriate decisions, conflict and lack of coordination, poor response to external change and low organization performance (Chill, 1984).

### *Human Resource Management*

Human Resource Management (HRM) plays a crucial role in an organization. An effective HRM could be one of the organization's competitive advantages (Amit and Belcourt, 1999). Generally, HRM can be considered as the core process of a project-

oriented company. It affects the way an organization acquires and uses human resources, and how employees experience their employment relationship with company (Huemann *et al.*, 2007).

Since all architectural consulting firms are project oriented, they should consider HRM as a vital component in their strategic management. Additionally, the construction industry is knowledge-based and people-intensive. Thus, experienced employees are valuable resources for consulting firms indeed. Moreover, effective training is likewise important in keeping human resource at a high quality. Therefore, human resource is one of the most important internal resources which can provide a consulting firm its competitive edge (Tan, 2008).

#### **2.3.4 Standard Conditions and rules of Engagement of consultants**

Hjorth and Rostrom (2012) describe the standard consultancy services conditions of engagement are written in the terms and provisions which are generally acceptable to, the employers, consultants and other practitioners such as sub-consultants and professional indemnity insurers. The division of risk between employers and consultants within the standard conditions has therefore been considered and the risk carried by the consultants will generally be covered by professional indemnity insurance. Schiele and McCue (2006) state the nature of standard conditions of engagement is mainly formulated depending on the nature of the employer and the authority bodies involved.

#### **2.3.5 Selection of consulting firm for public funded project**

According to the Public Procurement Act of 2011 and its Regulations of 2013, there are four methods for selecting and employing consultants. Such methods are:

International Competitive Selection; National competitive selection; restricted competitive selection and Single source selection

a) International competitive selection

This method requires procuring entity to invites all consultants regardless of their nationality by means of an expression of interest notice that shall be advertised nationally and internationally, to submit expressions of interest for consultancy services. This method shall be used in all cases where:

- i. Payment may be made in a whole or in part in foreign currency
- ii. The estimated cost of the services exceeds the threshold for such tenders prescribed in the second schedule to these regulations, or;
- iii. It is desired to attract expression of interest from the widest range of consultants regardless of the estimated value of the services to be procured.

b) National Competitive selection

In this method of selection, procuring entity invites consultants to submit expressions of interest for the required services regardless of their nationality, by means of an expression of interest notice advertised only in the United Republic of Tanzania, to submit expression of interest for the required services. This method of selection may be used in cases where:

- i. Payment may be made wholly in Tanzania;
- ii. The service can be obtained locally at price below the international market;
- iii. The estimated cost of the services does not exceeds the threshold for national competitive selection specified in second schedule to these regulations; or



- iv. The advantages of international competitive selection are clearly outweighed by the administrative or financial burden involved.

c) Restricted competitive selection

In this method, a procuring entity may restrict the issue of request for proposal to a limited number of specified consultants when:

- i. Such consultants have already obtained pre-qualification credit as per regulation of these regulations; or
- ii. The services required are within the competence of a limited number of specialized consultants; or
- iii. There is insufficient time for procuring entity to engage open national or international tendering, providing that the circumstance giving rise to the urgency could not have been foreseen by a procuring entity and have not been caused by dilatory conduct on its part.

d) Single source selection

The use of this method of selection shall be examined in the context of the overall interest of a procuring entity and the project, and a tender board's responsibility to ensure economy and efficiency and provide opportunity to all consultants to the extent possible. This method may be appropriate only if it present a clear advantage over competition in which case single source selection may be justified:

- i. For tasks that represent a natural continuation of previous work carried out by the firm;
- ii. Where a rapid selection is essential such as in an emergency operation;

- iii. When only one firm is qualified or has experience of exceptional worth for the assignment.

Also single source selection may be taken into consideration when continuity for downstream work is essential; when continuity in the technical approach, experience acquired, and continued professional liability of the same consultants may make continuation with the initial consultant preferable to a new competition subject to satisfactory performance in the initial assignment and if the initial assignment was not awarded on competitive basis or was awarded under tied financial or reserved selection or if the downstream assignment is substantially larger in value, a competitive process acceptable to the appropriate tender board shall normally be followed in which the consultant carrying out the initial work is not excluded from consideration if it expresses interest.

## **2.4 Competitiveness**

### **2.4.1 Understanding competitiveness**

According to Onyemenam (2004) competitiveness has two basic colorations: national/global and firm level, these two basic colorations will be discussed later in this section. First let see the meaning of the concept of competitiveness, Competitiveness can be considered as “multi-faceted” in nature as a number of variables should be jointly adopted to measure it. Economic literature examines competitiveness along two different levels: competitiveness of national economies (macroeconomic level) and competitiveness of firms/industries (microeconomic level). Longman’s Advanced American Dictionary (2000) provides a useful initial definition of competitiveness as “the ability of a company or a product to compete

with others and the desire to be more successful than other people". Literally, the term describes the ability of firms and industries to stay competitive which, in turn, reflects their ability to improve or protect their position in relation to competitors which are active in the same market (Liargovas and Skandalis, 2005). Beck (1990) states that competitiveness can be interpreted as the ability of a firm to cope with the structural change.

Being in line with the above meaning of competitiveness, the following are the description of the two basic colorations of competitiveness:

a) National level competitiveness

A pioneering competitiveness definition on a national level was formulated by Scott and Lodge (1985) as: "a country's ability to create, produce, distributes and/or services products in international trade while earning rising returns on its resources". This definition include an international element in the sense that products and services are exposed to international trade, competing with products and services produced by countries with different cost structure and/or more sophisticated features. At the same time, competitiveness of a nation implies rising returns on resources and rising real income for the citizens.

b) Firm level competitiveness

Lall (2001) describes competitiveness of a firm can be taken as the ability to do better than comparable firms in sales, market share, or profitability. Henricsson *et al.* (2004) describes firm competitiveness as the ability of the firm to produce services or products of superior quality and lower costs than its domestic and international competitors. Competitiveness is synonymous with a firm's long-run profit

performance and its ability to compensate its employees and provide superior return to its owners (Buckley *et al.*, 1988).

#### **2.4.2 Generic Competitiveness**

Porter's (1985) three universal competitive strategies are introduced. The understanding on these theories is important to further investigate their application in the construction industry.

The construction sector competitiveness has been a global subject of interest for many years. The concept of competitiveness has been widely used in economics and business management, it is the concept that economists, industrialists, politicians, journalist and academics frequently refer to, debate and worry about. The World Economic Forum (WEF) and the International Institute of Management Development (IMD) annually publish competitiveness reports to measure and benchmark the competitiveness of different nation. WEF has initiated forward to introduce the competitiveness in the context of regions and industries.

In addition to national competitiveness, industry bodies and firms are as eager to measure and benchmark their competitiveness against their peers as competitiveness is the key to the success or failure in a market economy (Porter, 1980).

#### **2.4.3 Competitive strategies**

The competitive strategy concept has been used globally in business management and many research efforts have been done in various industries. In order to have full understanding of the concept, the definition of the strategy and Porter's three generic competitive strategies are introduced in this section.

#### a) Definition of Strategy

Adoption of suitable strategies will enable construction firms to compete well with their rivals (Isik *et al.*, 2009). Nowadays, the term strategy is widely used in the discipline of business management. Business management performance is highly influenced by the strategy. Therefore it is important to understand what strategy is as it has been defined different in many business management studies, and the following are some of the examples:

Chandler (1962) defined the strategy as “the determination of the basic long term goals and objectives of an enterprise and the adoption of courses of action and allocation of resources necessary for carrying out these goals.”

Andrews (1971) defined corporate strategy as “the pattern of major objectives, purposes, or goals and essential policies and plans for achieving those goals, stated in such a way as to define what business the company is in or is to be in and the kind of company it is or is to be”. Thompson *et al.* (2006) define strategy as “the management’s game plan for growing the business, staking out a market position, attracting and pleasuring customers, competing successfully, conducting operations, and achieving targeted objectives”

Tan (2008) explains that based on the above definitions, strategy for business organization can be defined as “to identify an organization’s long term objectives or goals with considering the competition environment, and take the relevant actions by matching its internal resources to the competition environment effectively for achieving the scheduled objectives or goals.”

From the viewpoint, practically developing a strategy is a complex process since consideration should be made to all factors affecting strategic decision. Thus,

Thompson and Strickland (2003) suggest that it requires incorporating three elements, namely customer needs, customer group to be served, and the competencies the firm needs to deliver value. Mintzberg (1973) explains in order to deliver this value and accomplish organizations' goal, firms need to clear their strategic intent and set up goals, for example being dominant in certain market. Strategic intent occurs when a firm wants to pursue an ambitious strategic objective and concentrates its competitive resources on that. Sometimes, the executive may not be clear about the existing successful strategy which is clear to others.

Normally, at all management level strategies are the answers to the management questions on how the firm will pursue the organization mission and strategic vision. Thompson and Strickland (2003) point out that whether a firm's strategy is good or not relies on its completeness, internal consistency, rationale and suitability to the situation. They further suggest two empirical indicators of strategy performance:

- Whether the company is achieving its stated financial and strategic objectives; and
- Whether the company is an above average performer.

#### b) Porter's generic Competitive strategies

Porter's three generic strategies have been widely used in the management field. There are three potentially successful generic strategic approaches to outperforming other firms in an industry: Overall cost leadership, differentiation and focus (Porter, 1980). The three generic strategies were further developed in Porter's later book. Porter (1985) believes that a firm can have two basic types of competitive advantage, namely low cost and differentiation. And the combination of the two competitive advantages and the scope of the firm's operation (the target market

segment) will lead to the three generic strategies: cost leadership, differentiation and focus. Warszawski (1996) later introduce another strategy suitable for the construction industry, i.e., growth strategy.

### *Cost leadership*

The cost leadership strategy focuses on the reduction of cost in productivity or administration to offer a lower price to customers. This strategy refers to how the firms can offer their services at lower fees than others through the ability to control the cost of the firm's administration while increasing productivity. It is most effective in predictable and stable environments (Miller, 1987; Warszawski, 1996). The firm that seeks leadership in cost has to focus the entire organization's resources to achieve this objective by forming a low cost culture, working constantly to reduce any overhead costs and staying constantly observant to the cost positions of its opponents (shimizu *et al.*, 2006). Cost leadership enables a firm to achieve an above average performance in its industry. However, successfully implementing the cost of leadership strategy requires different resources and skills. Porter (1980) identified the commonly required skills and resources for cost leadership as follows:

- Sustained capital investment and access to capital;
- Process engineering skills;
- Close supervision of labour;
- Product designed for ease of manufacture;
- Low-cost distribution system.

### *Differentiation*

Differentiation strategy is to create a product or a service which is unique in an industry, it promotes creativity in offering services. The unique attributes of the

product or services should provide superior values to the customers. Since the product or service is unique in one or more dimensions, the price elasticity of demand will be reduced and customers tend to be branding loyal (Tan, 2009). There are different ways for differentiation “differentiation can be based on the product itself, the delivery system by which it is sold, the marketing approach, and a broad range of other factor, therefore, a differentiation must always seek ways of differentiating that lead to a price premium greater than the cost of differentiating and differentiate itself from its rivals” (Porter, 1985).

The following skills and resources are required in implementing differentiation strategy (Porter, 1980):

- Strong marketing abilities
- Product engineering
- Creative flair
- Strong capability in basics research
- Corporate reputation for quality or technological leadership
- Long tradition in the industry or unique combination of skills drawn from other business
- Strong cooperation from channels

#### *Focus strategy*

The focus strategy is to select a few target markets for competition. This strategy enables a firm to better meet the needs of the target market than its competitors who compete more broadly (Tan, 2009). It is important to select appropriate target market for implementing this strategy. Porter (1985) “ segment structure attractiveness is a necessary condition since some segments in an industry are



much less profitable than others....most industries have a variety of segments, and each one that involves a different buyer need or a different optimal production or delivery system is a candidate for a focus strategy.”

This strategy requires a smaller number of staffs who have essential skills and a wide breadth of knowledge, are able to handle multiple tasks and are well trained (Jennings and Betts, 1996). The particular skill used in this target is target market, but the identified skills and resources used in cost leadership and differentiation strategies are also applicable in this strategy. The consulting firm that adopt this strategy will focus their services on the same geographical area where they have already established themselves and where they have a good relationship with the clients and other professionals (Abidin *et al.*, 2014).

#### *Growth strategy*

The main objective of this strategy is the expansion of business. By branching out either locally or internationally, they would have a wider market and more opportunities that could lead to a strengthened position in the industry (Abidin *et al.*, 2014). Langford and Male (2001) stated that firms may decide to expand their business into a new market or geographical location because of stagnant existing markets, booming markets in a new geographical location and the competitive use of resources. Warszawski (1996) states that, before applying a growth strategy, firms should be aware of the potential new challenges: the need to enhance skills and resources and the need to understand new cultures, competitiveness, societal needs and business environments. This strategy focuses on three elements:

- Internationalization
- Expanding firms
- Diversification

#### **2.4.4 Consultants competitiveness**

Construction projects are largely complex, costly and at times risky. Most clients would entrust consultants to provide professional advice and services so as to safeguard their interest. The concept of consultants' competitiveness has been covered extensively in the literature. Many clients increasingly employ a competitive bidding approach for recruiting construction consultants. However, the concept of relying on the bid price alone is problematic as a consultant submitting the lowest bid may not necessarily be able to complete the work satisfactorily, and any errors in design or supervision may in turn cost the project as many times as the savings accrued from a low consultant fee (Hattan and Lalani, 1997), and there is a possibility that the lowest bid is indeed from a newly established consultant or one who does not have adequate experience or resources to handle the project. Therefore, the value of professional services should not be merely measured in monetary terms, but also consider consultants' experience and resources that best suit a project (Parks and McBride, 1987). The evaluation of consultant's competence should consider a wide range of factors such as financial soundness, technical ability, management capability, reputation and safety performance (Hattan and Lalani, 1997). Shen *et al.* (2004) formulated the competitiveness parameters in seven areas: management skills, technical ability, organization structure, marketing ability, social influence and contribution to project. Molina *et al.* (2004) also proposes the use of the following variables to determine firms' competitiveness: market share, profit, returns, technological provision, financial management, quality of product/services, after-sales services, managers' education background, customer loyalty, supplier loyalty,

location of establishment, employees' commitment and loyalty, employees' professional know-how, and reputation.

#### **2.4.5 Competitive advantages**

Awwad *et al.* (2013) investigated one of the strongest challenges that firms faces is gaining and developing competitive advantage. A firm is said to have a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors (Barney, 1991).

Tracey *et al.* (1999) define competitive advantage as the extent to which a firm is able to create and maintain a defensible position over its competitors. Alternatively, it may be considered to refer to the capabilities which allow a firm to shape its competitive advantage so defined and differentiate itself from its competitors (Li *et al.*, 2006). Also Ma (1999) defines competitive advantage as the asymmetry or differential in any attribute or factor that allows a firm to serve its clients more effectively than others and hence to create better client value and achieve superior performance. Harrison and Hoek (2002) suggest that competitive advantage is achieved by the competitiveness of the supply chain, which means "meeting end customer demand through supplying what is needed in the form it is needed, when it is needed, at a competitive cost".

Awwad *et al.* (2013) also describes creating competitive advantage requires a determination of the factors that may put a firm in a better position in relation to its competitors in the marketplace. Conner (2003) and Wheelwright (1984) identified four strategic capabilities which can be considered as competitive priorities; Low cost, quality, quick delivery and flexibility. Helms (1996) consider that quality and

productivity can be used as strategic weapons to achieve competitive advantage. Also Helms (1996) suggests firms must be aware of what increases quality or support production as strategic weapons; otherwise firms will lose market share. Cardy and Selvarajan (2006) consider the key to competitive advantage need the combination of resources and capabilities for it to be competent. The resource-based view (RBV) of the firm considers it to be a collection of assets or resources. These may be tangible assets, such as firm routines and capabilities. Barney (1991) Resource may be both static and dynamic. Strategic firms resources are; physical resources, human resources and organizational resources such as capabilities, organizational process, knowledge, information, reputation, that it is valuable and costly to replace and imitation. Barney (1991) describes the crucial requirement of the RBV is that the relevant resources, whatever their nature, are specific to the firm and not easily imitated by rivals.

#### **2.4.6 Sustainable competitive advantage (SCA)**

Barney (1991) describes sustainable competitive advantage as the competitive advantage the firms have and such competitive advantage is not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy. Barney (1986) state that the sustained competitive advantage depends on the ownership of firms-specific resources that are valuable, rare, inimitable and non-substitutable. Barney (1991) describes unanticipated changes in the economic structure of an industry may make what was, at one time, a source of sustainable competitive advantage, no longer

valuable for a firm, and thus not a source of sustained competitive advantage and this therefore imply that competitive advantage is sustained does not last forever.

Being in line with Barney description on unanticipated changes in the economic structure of an industry, the need of dynamic capabilities has taken into consideration by (Teece and Pisano, 1994). Teece and Pisano (1994) they further define dynamic capabilities as the firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments. Teece and Pisano (1994) also investigated dynamic capabilities allow firms to maintain a competitive advantage and may help them to avoid developing core rigidities, which inhibit development, generate inertia and stifle innovation.

#### **2.4.7 Competitive priorities**

Krajewski and Ritzman (1993) define competitive priorities as the dimensions that a firm's production system must possess to support the demands of the markets in which the firms wishes to compete. Major competitive priorities comprise the following elements: flexibility, cost, quality and delivery (Wheelwright, 1984; Boyer and Lewis, 2002).

##### **a) Flexibility**

According to Mandelbaum (1978) flexibility is the ability to respond effectively to changing circumstances, mastering changes and meeting uncertainty resulting from the internal and external business environments. However flexibility is a multidimensional concept (Sethi, 1990). Different kinds of flexibility would be appropriate to deal with different conditions or types of change. Upton (1994) classifies flexibility into two forms: *action flexibility* which is the capacity for taking

new action to meet new circumstances and *State flexibility* which is the capacity to continue functioning effectively despite changes in the environment.

#### b) Quality

Quality is a competitive weapon in the marketplace. It engenders competitive advantage by providing products that meet or exceed customer needs and expectations (Lee and Zhou, 2000). Garvin (1987) identifies eight dimensions for quality as performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality. Porter (1980) argues that firms which compete on quality can adopt a differentiation strategy and position their services based on several attributes which will lead to the ability to charge a premium price. Hence, quality helps firms to enhance their competitiveness and promotes customer loyalty by meeting customers' expectations.

#### c) Cost

According to Porter (1980) competitive advantage can be achieved by adopting one or more of the following generic competitive strategy: 1) Cost leadership, this strategy has low cost relative to competitors, related and standard services, and economies of scales features. This strategy requires intense supervision of labor, tight cost control, frequent and detailed control reports and structured firm and responsibility. The logic behind linking a cost leadership strategy to competitive advantage is that competitive advantage can be divided into two basic types: lower cost than rivals, or the ability to differentiate and command premium price that exceeds the extra cost of doing so. 2) Differentiation: this strategy is described in terms of service uniqueness, an emphasis on marketing and research, and a flexible

structure; and 3) focus: this strategy implies a focus on a narrow strategic target (buyer group, product line or geographical market) through differentiation, low cost or both.

#### d) Delivery

Awwad *et al.* (2013) describes delivery is a competitive priority because customers are interested in satisfying their needs and wants in the right services at the right time. Kumar (2004) stated “Delivery of the required function means ensuring that the right product (meeting the requirement of quality, reliability and maintainability) is delivered in the right required services, at the right time, in the right place, from the right source, with the right service and finally at the right price.

## **2.5 Strategy in construction**

### **2.5.1 Strategy in bidding**

Contract bidding is a mechanism for distributing works to willing consultants, and consultants need to make strategic decision in respect of : (1) the selection of the contract to bid for, and (2) the bid levels necessary to secure them (Skitmore, 1991). Competitive inconsistency is manifested in the variability of bids entered by individual bidders over a series of auction and have been ascribed to many factors other than pure mistake, including:

#### a) Cost estimates

Skitmore (1982) describes the variability of cost estimates has been attributed to three factors; (1) inherent unpredictability (e.g. site performance, weather conditions) (2) uncertainty due to incomplete design and future cost levels (3) costing errors. The

variability of cost estimates between bidders is considered by several authors (e.g., Beeston, 1983) to be the major component of bid variability.

b) Mark up

Different bidders apply different markup policies which may be variable or fixed.

Upson (1987) suggests that the following factors should be given consideration for variable mark up policies:

1. Work in hand
2. Bids in hand
3. Availability of staff
4. Profitability
5. Ability of architect or other supervising officer
6. Contract conditions
7. Construction methods and programme
8. Market conditions
9. Identity of other bidders

The strategic selection of markup values has been considered extensively in the literature. In practice, consultants adopt various competition strategies to enhance their chances of winning contracts. Fine (1975) has identified several strategies including random bidding when work is low, selective bidding and severely competitive bidding with claim back within the limits of contract. Stone (1983) has also suggested that some firms aim at lower standards of work than others and that there are differences in efficiency and therefore cost. For international consultants, forming joint ventures with local partners has become popular strategy when entering into new market, especially into developing countries (Lim and Liu, 2001). Besides



foregoing strategy, risk control has been considered an important part in the bid decision, especially for international construction projects which involve numerous uncertainties and complexities (Han *et al.*, 2005).

### **2.5.2 Corporate/ Business strategy**

Business strategy usually occurs at business unit or product level emphasizing the improvement of competitive position of a firm's products or services in an industry or market segment served by the business unit (Skitmore, 1991). Many studies on corporate/business strategy for construction were undertaken in UK in the 1970s (e.g. Sadler *et al.*, 1974; Lansley *et al.*, 1979). Discussion on how construction firms changed their strategy in response to the changes in environment was conducted (Lansley, 1983, 1987). Johnson and schools (1988) developed a framework integrating strategic alternatives into four major groups, including generic competitive, generic directional, strategic variations, and finally strategic mode.

In Hasegawa's (1988) work, six strategies were identified for Japanese contractor to enable them to be strategically placed in the changing global construction industry. These strategies include a transactional approach, new business development, integrated engineering constructor, total project management, technology development and exploring financial strategies. Cannon and Hillebrandt (1990) suggest four means of product differentiation in construction; including offering a range of project management method; extending from construction into design; extending into financial packaging; extending forward into commissioning and facilities management.

After that, the research efforts on corporate strategy, strategic planning and management in construction continued with many publications (Abdlu-Aziz, 1994; warszawski, 1996; Venegas and Alarcon, 1997; Chinowsky and Meredith, 2000; Langford and Male, 2001; Kale and Arditi, 2002). More recently, Seaden *et al.* (2003) examine the relationship between business strategy and innovative practice and find the most listed business strategies are positively related to innovative practices. Whitla *et al.* (2006) examine the global strategies used by British construction firms and find that most firms make little use of globally integrated strategies.

These studies provide valuable references for understanding the strategic management in construction. However, they were developed under different location backgrounds so that the findings may not be applicable in other countries. Also these studies did not provide a systematic method for helping construction companies to develop competition strategies in the market. Therefore, there is a need for a new methodology to understand organization competitiveness and competitive strategy within construction context.

### **2.5.3 Factors affecting strategies implementation**

Zaribaf and Hamid (2010) describe strategy implementation as a process in which all planning and budgeting activities, policies and procedure follows the defined strategy. They also said such implementation may involve some changes in organization's culture, structure and managerial system or even a wide general change in these entire mentioned fields. According to Rajasekar (2014) factors that affect strategy implementation can be categorized as leadership style, organization

structure, organization culture, information availability and accuracy, uncertainty, human resources, and technology. Although most researchers agree that these factors affect strategy implementation, each factor's impact is at a different level and carries a different force. Lorange (1998) states that human resources are the keys to strategic resources in strategies implementation. Also Fulmer (1990) mentioned that human resources management plays an important role in the effective implementation of strategic plans. It is important for both organization departments and employees to be enthusiastic about the strategy implementation. Getting people involved and having a motivation reward system will have a positive influence on the implementation of strategy. Despite poor leadership being the biggest obstacle to strategy implementation and execution, managers mostly rely on planning and organizing activities when implementing strategies (Cater and Pucko, 2010).

a) The role of leadership in strategy implementation

According to Cater and Pucko (2010), while a well formulated strategy, a strong and effective pool of skills, and human capital are extremely important resources for strategy success, poor leadership is one of the main obstacles in successful strategy implementation. Therefore, the need for effective leadership outweighs any other factor.

Enhancing communication within the organization is another important aspect of leadership. Blocked vertical communication has an adverse effect on organization's ability to implement and refine its strategy (Beer and Eisenstat, 2000).

Coordination of activities, streamlining of processes, aligning the organizational structure, and keeping the employees motivated and committed to strategy

implementation are key responsibilities of the leadership. Beer and Eisenstat (2000) refer to poor coordination across functions and inadequate down-the-line leadership skills and development as killers of strategy implementation.

Rajasekar (2014) describes leadership style in a given organization influences how the chosen strategies will be implemented. Organization structure, delegation of responsibility, freedom of managers to make decision, and the incentives and rewards systems will all be influenced by the leadership style in a particular organization.

#### b) Role of organizational structure in strategy implementation

Zaribaf and Hamid (2010) describe organizational structure consist of corporate hierarchy, division of labour, delegating and communication. Also Zaribaf and Hamid (2010) propose the consideration of measuring the adaptability level of structure, centralization and decentralization, strategy and structure relationship, corresponding to gain and share information all through the organization, and clarifying responsibilities as main point to be considered so as to set an adaptive and conforming relationship between structure and strategy. According to Chandler (1962) in a strategy structure studies, organizational structure has been influenced by the organization's strategies (structure follows strategy). Concurring with Chandler's (1962) study, Zaribaf and Hamid (2010) reveal that the strategy is formulated by the top management exclusively and middle-level managers only implement the strategy unless a wide range of changes is required before implementation (structure alignment with strategy). Many studies have addressed the link between organization strategy and structure by pointing out that one of the challenges in strategy implementation is weak coordination of activities (Rajasekar, 2014). Similarly, other

researchers proposed turning poor coordination into teamwork by realigning roles, responsibilities, and accountabilities with strategy (Miller *et al.*, 2004). Brache (1992) proposed that from an implementation perspective, it is more valuable for an organization to apply cross-functional processes to enforce strategy implementation than to change the organization structure. Hrebniak (2006) conducted a study on obstacles to effective strategy implementation and found that poor or inadequate information sharing, unclear responsibility and accountability, and working against the organization power structure (all part of organization structure results in failed implementation process).

c) Role of human resource in implementing strategies

Lorange (1998) investigated the importance of human resources in implementing strategies in organization and found that if strategy implementation needs to succeed, then top management must be heavily involved in monitoring and reviewing the progress of each strategic program created by the organization.

d) Role of information system in strategy implementation

Information is considered as blood which streams into the organization's vessels and brings it to life. Information systems' function in implementing process is mainly concerned with internal circulation of information and appears on environmental uncertainty phenomenon Zaribaf and Hamid (2010). Also Zaribaf and Hamid (2010) display the role of information system in implementing strategy is managers' need to reciprocal exchange of information. It means a system that transmits information up and downward. They also added that factors such as the quality of information, time appropriateness of information, quantity of information and relevance of information

are very important factors to be considered in information system. Management information system is one instruments can collect and organize data for managers in order to do their task

e) Role of technology in strategy implementation

According to Zaribaf and Hamid (2010) technology is at the center of systems designed for finding customers' needs and satisfaction and can be defined as knowledge, products, processes, instruments, procedures and systems which helps producing goods and services. Also Zaribaf and Hamid (2010) suggested successful implementation of strategies results from integrating and coordinating of technologic innovations, production processes, marketing, financing and personnel. Mitchell (1992) emphasizes on the importance of relationship between main goals and operational targets of organization and its technological strategy. There should be a wide consensus of opinion among technical, commercial, and official departments of any organization. Mitchell presents a few questions which both technical and commercial strategic planners should respond:

- i. How much is the relationship between technology and business?
- ii. Which commercial strategies need technology?
- iii. How it (technology) can be gained?
- iv. Research should be focused on what kind of technologies?
- v. What are our main technologies for business?
- vi. Which new strategic options designated technologies?

## **2.6 Chapter summary**

This chapter provides the review of some literature linking to the objectives of this study. In this chapter the researcher has tried to incorporate various literatures obtained from journal, textbooks, previous research and materials from website to cover research questions. The literature explains about the construction industry in Tanzania, consulting firms, competitiveness and strategies in construction. The next chapter is research methodology which presents the method and techniques used to collect and analyze data.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The choice of right research method is the key for successful research. This chapter presents systematically the scientific methods, techniques and procedures adopted in answering research questions which will solve the research problem. In this chapter, the research methodology adopted in this study will be discussed and presented.

#### **3.2 Research design**

The research objectives have been established in the previous chapter. The methods for achieving these objectives will be addressed by designing the research in an appropriate manner. Research design involves formulating the map that will systematically help to collect, measure and analyze the data relevant to the study basing on the conceptual structure of the study (Kothari, 2004; Naoum 2007). Generally the aim of research design is to help a researcher to control the process of data collection and interpretation (Kothari, 2004). Kombo and Tromp (2006) describes research design as a structure of any research that holds together the elements in the research, the way how all the major parts of the research work together to address the central research questions.

There are four types of research design; descriptive research design, experimental research design, correlation research design and case study research design.

##### **3.2.1 Descriptive research design**

Descriptive research is the research which is used to describe the characteristics of a population, individual or phenomenon being studied. Normally it reveals and



measures the strength of a target opinion, attitude with regard to the specific subject (Crotty, 1998).

This research design according to Phillips (1971) it gathers both quantifiable and qualitative information that can be used for analytical inferences.

In this research design, researcher must be able to define clearly, what he/she wants to measure and must find adequate method for measuring it along with a clear cut definition of population he/she wants to study. It follows a typical research processes hence it requires the procedures to be carefully planned such as defining research problem, formulating research objectives, designing data collection methods, sampling design, data collection, processing and analysis of data and reporting of data (Kothari, 2004; Naoum, 2007).

### **3.2.2 Experimental research design**

Experimental research design or hypothesis testing is the design selected when the researcher wants to find facts about a concept, a question or an attributes and also when a researcher wants to collect factual evidence and study the relationship between these facts for testing a particular theory or hypothesis (Naoum, 2003).

### **3.2.3 Correlation research design**

Correlation research design or sometimes termed as diagnostic research is mainly focused on enabling the researcher to assess the degree of relationship that exists between two or more variables (Orodho, 2006).

### **3.2.4 Case study research design**

This research design is used when the researcher wants to support his/her argument by in depth analysis of a person, a group of people, an organization, or a particular

project (Yin, 1994). Kombo and Tromp (2006) describe this design as a way of organizing educational data and looking at the project to be studied as a whole whereby the researcher can use it if he intends to analyze an issue in detail.

This research has adopted descriptive research design in order to provide an insight and explanation on matters regarding on the competitiveness of architectural consulting firms in Tanzania construction industry.

### **3.3 Research approach**

Naoum (2007) explains research approach as the plans and designs for research that stems out from the general idea to specific methods and techniques of data collection, processing, analysis and interpretation. Creswell (2003) identified three key approaches used in research works: a quantitative research approach, a qualitative research approach and mixed method research approach. Deciding on which approach to use, three considerations must be taken into account: the research problem, the personnel experiences of the researcher and the audience(s) for whom the report will be written (Phillips, 1971).

#### **3.3.1 Qualitative research approach**

Geneserth and Nilsson (1987) describes qualitative approach as the approach in which the researcher makes inquiries based principally on constructivist perspective (i.e., a theory or pattern developed from studies on individual experiences, social and historical findings) or advocacy/participatory perspectives (i.e., observatory findings, political, case studies or collaborative or both).

Qualitative research approach is categorized into two; a) Exploratory and b) Attitudinal research

**a) Exploratory research**

This research is mainly used in the study when there is a little or limited knowledge on the subject of the study, it emphasis on the discovery of ideas and insights. Naoum (2007) explain the research design appropriate for such studies must be flexible enough to provide opportunity for considering different aspect of a problem under the study.

**b) Attitudinal research**

Naoum (2007) describes this category of qualitative approach as the approach measuring the perception through inquiries of variables of research. This category is used to subjectively evaluate the attitudes of an individual, society regarding certain object.

The use of open-ended questions in the questionnaires in this category helps the researcher to acquire opinions or views and measure a degree of responsiveness so as to judge and ultimately to establish a decision on the study subject.

**3.3.2 Quantitative research**

Greswell (2003) and Naoum (2007) describe quantitative approach as an approach for testing objective theories, concept or a hypothesis by establishing a test or examining the relationship among the variables. Gresswell (2003) describes quantitative research as the approach composed of variable, measured with numbers and analyzed with statistical proceedings in order to determine whether the theory/ hypothesis holds true (Greswell, 2003). Data obtained quantitatively are hard, empirical, reliable and countable (Naoum, 2007).

### 3.3.3 Mixed method approach

A mixed method approach or sometimes known as a triangulation approach works under a concept that qualitative and quantitative methods should be viewed as complementary rather than as rival (Rose, 1998). This approach is an approach to inquiry involving collecting both qualitative and quantitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks.

The type of research approach to use depends on the study to be undertaken. In this research, mixed approach has adopted as the study begins with a broad survey in order to generalize results to population and then, in a second phase, focuses on qualitative, open-ended interview to collect detailed views from participants to help explain the initial quantitative survey.

### 3.4 Population of the study

Rose (1998) describes population of the study as a study of a group of individuals taken from the general population who share a common characteristic that is a main focus of a researcher in a scientific query. It is the collection of elements the researcher wishes to make references. In this research the study populations are the active architectural consulting firms in Tanzania construction industry registered by the Architects and Quantity surveyors Registration Board (AQRB).

**Table 3.1 List of Registered Architectural Firms in Tanzania**

S/No	Active firms registered by AQRB	Total
1	Local architectural consulting firms	211
2	Foreign architectural consulting firms	7

(Source: AQRB, 2016)

### **3.5 Sampling**

The objective of sampling is to seek a practical way of collecting data while ensuring that the sample will provide a good representation of the population. There are various ways of sampling depending on the nature of the population. According to Fellows and Liu (2003) these ways of sampling are random, judgmental and non-random sampling.

In random sampling, each member of the population has an equal chance in the selection process. This selection can be carried out using random numbers from tables or computer program. In a judgmental sampling, the judgment on a well-informed research target is used to determine the items of the population which would form the sample. The reason for using judgmental sampling should be stated clearly as it sometimes has the drawback of biasness. In non-random sampling the following three methods are used to obtain the sample:

- Systematic sampling
- Stratified sampling
- Cluster sampling

The sample in this study is drawn from architectural consulting firms in Tanzania construction industry. According to AQRB statistics data, the number of registered architectural consulting firms is quite a large population. In this research due to time and cost constraints, the judgmental sampling method is used to draw sample from the population of architectural consulting firms in Tanzania construction industry from those architectural consulting firms available in Dar es Salaam region only.

The executive officers of the organization are chosen as the research informants, since they are expected to possess the most knowledge regarding the firms' external

and internal environment, competitive advantage, strategies and competitive inconsistency. The names of these officers have been obtained from the Architects and Quantity surveyors Registration Board. The contact information have been be used solely for research purpose and kept confidential.

### 3.5.1 Sample size

According to a study by Dillman (2000), four factors should be considered in determining sample size, namely; sample error, population size, variation in answers and confidence level.

In this research the approach based on ‘precision rate and confidence level’ is used to determination the sample size from the study population. Kothari (2004) the precision rate and confidence level is used by estimating the proportion of sample from the population which provides effective control of sampling errors by deciding on sampling acceptable error at a specified confidence level.

Calculation formula of the sample size (n) by using the approach based on precision rate and confidence interval through estimation of the proportion (p:q) given as follows:

$$n = \frac{Z^2 \cdot p \cdot q \cdot N}{e^2 (N-1) + Z^2 \cdot p \cdot q}$$

Key, n = required sample size, Z (Standard variate from the normal curve at 95.5 % confidence level) = 1.105, p: q = Sample proportion 0.02:0.98, e (precision interval) = ± 0.03, N = Population size

Now sample size from the available numbers of architectural firms will be

$$n = \frac{(1.105)^2 \cdot (0.02) \cdot (0.98) \cdot (218)}{0.03^2 \cdot (218-1) + (1.105)^2 \cdot (0.02) \cdot (0.98)} \\ = 23.$$

According to the 1/10<sup>th</sup> rule by Krishnaswami and Ranganatham (2006) which state that for the sample to be adequate for presentation and consequently give the results which can be fairly generalize back to the population in which they were drawn, the sample size should not be less than 10% of the population. Basing on the available number of Architectural consulting firms 218, the 10% of 218 is approximately equal to 22 (Sample size). Now comparing the two results, one obtained from the formula and the one obtained from 1/10<sup>th</sup> rule the sample size can be decided to be any number not less than 22. Hence for this study, 20% will be taken as the population of the sample size

**Table 3.2 Size of Selected Sample**

S/No	Active firms	Quantity (No)	20% of 218
1	Architectural consulting Firms	218	44

### **3.6 Data collection**

Kombo and Tromp (2006) refers data collection as the process of gathering information relevant to the research aimed at providing or rebutting the facts. Krishnaswami and Ranganatham (2006) describes data collection as a process of search for answers to research questions, while data are the facts, and other relevant materials, past and present, serving as bases for study and analysis.

#### **3.6.1 Data collection techniques**

Data collection techniques involve the research instrument/methods used to collect data devised from the data collection approaches. Three instrument of research are used to collect data in the study namely; questionnaires and interviews (Kombo and Tromp, 2006; Kothari, 2004; Naoum, 2007) and literature reviews (Robinson and Reed, 1998). Researchers have realized that mixed-mode surveys can help to

overcome the difficulties of obtaining an adequate response rate by only using one method.

#### a) Questionnaires

Apart from being advantageous in terms of cost and speed, the importance of questionnaire design for an effective survey has been addressed by many researchers (Sheatsley, 1983; Czaja and Blaire, 1996; Newman 1997). Their recommendation focus on questionnaire presentation, questionnaire organization through topics, and the use of 'change of theme' questions and so on. According to Brace (2004) a good questionnaire poses question that respondents can answer without much effort, can maintain their interest and does not entail too much of their time. Response rates are influenced by many factors, including the questionnaire's dimensions and size, cover pages, color and type of the paper used, ordering of the questions, as well as the envelope and stamps used to send the questionnaire (Diaz de Rada, 2005).

#### b) Interviews

Interview is the face to face interpersonal role conversation between two or more people in which the interviewer asks the interviewee questions designed to elicit facts (Kothar, 2004; Naoum, 2007). A semi-structured form of interview is used whereby the questions are presented in the order and wording which can be alternated according to condition and trends of the responses (Nachmias and Nachmias, 1996). Interview has the following advantages; answers offer high accuracy as respondent can elaborate the reply and ask the interviewer if he/she is not well understand the question, the response rate is very high and exploration has great chance during the interview due to interviewer-interviewee conversation and arguments.



### c) Literature review

Robinson and Reed (1998) define a literature review as a systematic search of published work to find out what is already known about the intended research topic.

A literature review serves many important purposes, including establishing the need for the research, broadening the horizons of the research and preventing the researcher from conducting research that already exists. Leedy (1989) notes that the more knowledgeable you are, the better you will be able to understand your problem. The purpose of literature review is not only to identify and analyze all information written about a topic, but also to gain insight and understanding into the problem at hand.

Bless (2000) gives more specific reasons, which include the following:

- To sharpen and deepen the theoretical framework of the research
- To familiarize the researcher with the latest developments in the area of research.
- To identify gaps in knowledge, as well as weakness in previous studies.
- To discover connections, contradiction or other relationship between different research results by comparing various investigations.
- To study the definitions used in the previous works as well as the characteristics of populations investigated, with the aim of adopting them for the new research.
- To study the advantage and disadvantage of the research methods used by others, in order to adopt or improve on them in one's own research.

### **3.6.2 Reliability and validity**

The use of mixed method can help increase response rates. On the other hand, the reliability and validity of surveys are also addressed in the survey. The reliability and validity of a survey have a major impact on research results since they provide assurance that a questionnaire really provides a meaningful answer to the research question.

*Reliability* refers to the consistency of a measure and to the probability of obtaining similar results if the measure is to be duplicated (Oppenheim, 1992). Reliability can be measured in several ways, including the test-retest reliability, the internal consistency reliability/Cronbach's Alpha, the split-half, and the parallel-form methods. Among them, internal consistency is the most commonly used method in studies.

*Validity* is concerned whether the question or score can measure what it is supposed to measure (Oppenheim, 1992). It has different types: content, concurrent, predictive and construct validities.

To ensure the reliability and validity of a survey questionnaire, researchers use different methods. As such, some will refer to the questionnaires used in previous research studies which have been proven reliable and valid. On the other hand, some will conduct a pilot or interview to examine reliability and validity. Therefore, these research approaches are adopted to formulate the questionnaires in this study. Prior to designing the questionnaire, a comprehensive literature review is conducted and a questionnaire draft is formulated. Subsequently, interviews with selected professional and academic researcher associated with construction industry are carried out to improve the questionnaire's reliability and validity. These approaches

have been proven effective during the letter analysis of data collected as shown on reliability statistic table 3.3 below.

**Table 3.3 Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.901	0.920	44

Cronbach's alpha is 0.901, which indicates a high level of reliability. This means the quality of measurement procedure used to collect data have high quality.

### **3.7 Chapter summary**

This chapter explains the methodology taken in the research and the essential approaches used to collect research data. It covers the methods and techniques employed in the study for research design, sampling design and data collection. The next chapter is the data collection and analysis.

## **CHAPTER FOUR**

### **DATA COLLECTION AND ANALYSIS**

#### **4.1 introductions**

This chapter represents the findings of the study on questionnaires addressed to obtain data on assessment of competitiveness of architectural consulting firms in Tanzania construction industry. Architectural consulting firms operating in Tanzania construction industry were taken as the unit of study and they were requested to give their opinions and express their attitudes on the issue of this research.

#### **4.2 Data collection**

Questionnaires were distributed to gather information of the respondents on the study, assessment of competitiveness of architectural consulting firms in Tanzania construction industry. A total of 44 respondents were physically faced and given questionnaires, out of the 44 questionnaires administered, 33 questionnaires equivalent to 75% were filled and returned. The data were coded and analyzed using the statistical package for social science (SPSS) version 20.00. The analyzed data were then expressed by using descriptions, table, charts and graphs.

#### **4.3 Data Analysis**

Analysis was done by putting the edited and classified data through SPSS 20.00 version for statistical analysis whereby exploratory analysis and descriptive analysis were employed in the study due to the nature of the questionnaires and measurement of relationship among variables.

**a) Exploratory analysis:** it is the analysis approach used to analyze results obtained from the open-ended questions set in the questionnaires.

**b) Descriptive analysis:** is the analysis which involves relating the classified variables/attributes obtained from the questionnaire survey to the frequency distributions and the mean values of responses as the measurement of central tendency in order to establish interpretations drawn from the statistical tabulations.

#### **4.4.1 Respondents' profile**

A total of 44 respondents were physically faced and given questionnaires, out of the 44 questionnaires administered, 33 questionnaires equivalent to 75% were filled and returned. All 33 respondents who returned the questionnaire were also interviewed. Eighty seven point nine percent (87.9%) were male and 12.1% were female. All respondents experiences were 4 years or above and a large number of them (33.3%) were having experience between 6 and 10 years where 51.5% of the respondents had attained master degree or above education. Hundred percent (100%) of the respondents were working full time, their typical position were directors, seniors, assistant architects and principle. All respondents were dealing with more than one type of the project, 90.9% were dealing with both public and private projects.

Table 4.1 summarized the demographic data of respondents.

**Table 4.1 Details of the respondents**

Sex	Frequency	Percent
Male	29	87.9
Female	4	12
Experience		
1-5	8	24.2
6-10	11	33.3
11-15	7	21.2
16-20	1	3.0
21-25	3	9.1
Above 25	3	9.1
Education level		
Master degree or above	17	51.5
Bachelor	16	48.5
Position		
Director	16	48.5
Senior	9	27.3
Ass. Architect	5	15.2
Principle	3	9.1
Types of project		
Private	1	3.0
Public	2	6.1
Both	30	90.1

#### 4.4.2 Companies profile

All respondents are working on companies having experience of one year and above. Response shows that large number of companies 87.9% have employees below 2 employees.

**Table 4.2 Companies experiences and number of full time employees.**

Company years of experience	Frequency	Percent
< 3	1	3.0
3-5	3	9.1
6-10	10	30.3
11-20	9	27.3
>20	10	30.3
Number of employee		
< 20	29	87.9
20-30	1	3.0
31-40	2	6.1
>50	1	3.0

#### **4.4.3 External environment for Architectural consulting services market**

Understanding external environment and know how they are either positively or negatively contributes to the competitiveness of the firm is very crucial for the formulation of the strategy and the decision on choosing the right strategy to implement so as to copy with the existing environment which will eventually yield to the competitive consistency of the firm.

Question on external environment was designed in such a way that respondents can tick box to indicate whether they strong disagree, Disagree, Neutral, Agree or Strong agree on each factor that they see as the factor that has impact or Influence on the competitive consistency on the the architectural consulting firms in Tanzania construction industry. The mean value for the factors together with their t-test, standard deviation and percentage were calculated and shown in their appropriate tables.

##### **a) Factors which impact on competitive consistency of Architectural consulting firms.**

The research findings showed that bearing on results obtained from the t-test as shown on the t-test table below, it shows each factor is statistically significance on causing impact on competitive consistency of architectural firms in Tanzania construction industry as their score are above the test value of 2.5 and each factor gives the significance difference of less than 0.05. The results shows high rivalry among competitors is the first ranked factor that has impact on the competitive consistency of Architectural consulting firms in Tanzania construction industry. The result showed the mean value of 3.82 as the total high score average marks given by the respondents. There are two major factors determining the extent of competitive in

an industry. One is the market concentration, another one is the degree of mutual interaction between competitors. High level market concentration will lead to intensive competition between competitors, this response matches with the literature review and is the true fact in Tanzania construction industry as numbers of construction projects are within Dar es Salaam region which eventually lead to high degree of mutual interaction between competitors.

The second factor that has impact on the competitive consistency of architectural consulting firms is high bargaining power of the clients. Essentially, clients are important players in the construction industry since they are buyers of architectural consulting firms' services. The results showed the mean value of 3.58 as the total average marks from the respondents. Despite high percentage of architectural consulting firms showed they deal with both private and public clients, but the big numbers of their projects are coming from private clients who are real estate developers and their major project types are private buildings. Literature review matches exactly with this findings as it also showed that big numbers of architectural consulting firms obtain their projects from private clients. Typically, private clients, particularly the larger developers, have a high bargaining power in procurement which in turn contradicts with the requirement of procurement procedures on project tendering. There are two major reasons behind this characteristic. First, construction industry entry barrier is low and several architectural consulting firms can also provide the same service and product. Second, the major developers in Tanzania construction industry have either in-house architectural consulting firms or long term relationships with some of them. Hence, there is only a small chance for



Architectural consulting firms which are neither in-house nor inner-circle firms of these developers to penetrate the private market.

The third factor that has impact on the competitive consistency of architectural consulting firms is threat of new entrants. Firms in all industries should be concerned about the likelihood of new firms penetrating their arena. The threat of entrants and the competitive rivalry can be jointly considered since increase in industry entrants eventually leads to an intense competition. The result showed the mean value of 3.33 as the total average marks given by the respondents which implies there are many new entrants, this findings match exactly to the characteristics of construction industry as shown in the literature review. This owes to the fact that the construction industry has low capital requirements and know-how. This shows that the industry is characterised by low entry and exit barriers which lead to emergence of many competitors and eventually makes firms suffer low profit levels which finally lead to weakening the competitive consistency of the firms.

Table 4.3a shows the summary of the respondents on the factors which have impact on competitive consistency of architectural consulting firms.

**Table 4.3a Impact on competitive consistency of architectural consulting firms.**

Factors	Mean	Std. Deviation	Rank
The rivalry among competitors is high	3.82	1.211	1
Clients have high bargaining power	3.58	1.300	2
There are many entrants	3.33	1.051	3
There are substitute services	3.27	1.153	4

Table 4.3b shows the t-test for the impact of factors on competitive consistency of architectural consulting firms.

**Table 4.3b T-test on impact of factor on competitive consistency**

	Test Value = 2.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
There are many entrants	4.556	32	0.000	0.833	0.46	1.21
clients have high bargaining power	4.755	32	0.000	1.076	0.61	1.54
There are substitute services	3.850	32	0.001	0.773	0.36	1.18
The rivalry among competitors is high	6.254	32	0.000	1.318	0.89	1.75

#### **b) Factors which influence competitive consistency**

In this part, concern is focused on the relationship of the firms with other stakeholder in the construction such as relationship of the firm with clients, governments departments, other architectural consulting firms, creditors, contractors and relationship with suppliers. Establishing good relationship with these parties enable firms to have more opportunities to win more contracts at present and in future and improve the efficiency of the construction works. Question on this aspect was designed in such a way that respondents can tick box to indicate how they see the relationship as either Nothing at all, Low, Moderate, High or Very high on each factor that they see as the factor that has Influence on the competitive consistency on the the architectural consulting firms in Tanzania construction industry. The research findings showed good relationship with creditors is not statistically significant in influencing competitive consistency of architectural consulting firms as shown on

table 4.4b. Good relationship with the contractors play a big role in influencing opportunities to architectural consulting firms, as the architectural firms act as clients' agents which solve both technical and managerial problems in the construction process and in reality, this role of architectural consulting firm stand as an extension of the client-contractor relationship. Such relationship significantly influence good project outcome which will gives the firms good reputation and increases the chances of winning more projects and hence increase the profit of the firms, the profit which lead to enhance competitive consistency of the firms. The result showed the mean value of 4.06 as the total high score average marks given by the respondents.

Second ranked factor that has high contribution to the firms opportunities is the firm good relationship with clients. Clients are among the most important actors in a construction industry. They may either come from private or public sector, may be frequent or once. Typically architectural consulting firms establish relationship with clients by meeting their demands for providing good consulting services to construction facility. The result showed the mean value of 4.0 as the total average marks given by respondents.

Third ranked factor is the relationship with the suppliers. Construction materials are one of the major parts in construction process. However, these relationships invariably have a great impact on contractors' performance. In case supplier's failure to comply with contractor requirements can cause deviation from previously set time, cost and quality objective. Such deviation will spread to both consultants particularly architectural consulting firms. The results showed a mean value of 3.76 as the total

average marks given by respondents. Good relationship between architectural consulting firms ensures suppliers' compliance which in turn will help to avoid deviation from the stated constraints above which will eventually give good reputation to the architectural consulting firms.

All first, second and third ranked factors match with the literature reviews, in this area the literature reviews did not rank the factors from top to the bottom and instead it has just explained the importance of firm having good relationships with different stakeholders in the construction industry. Table 4.4a below shows the summary of respondents on the factor influencing competitive consistency.

**Table 4.4a Factors influencing competitive consistency**

Factor	Mean	Std. Deviation	Rank
Company relationship with contractor	4.06	0.704	1
company relationship with clients	4.00	0.829	2
Company relationship with suppliers	3.76	0.830	3
company relationship with government department	3.73	0.944	4
Company relationship with the architectural firm	3.45	1.227	5
Company relationship with creditors	2.45	1.252	6

**Table 4.4b T-test on Factors influencing competitive consistency**

	Test Value = 2.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
company relationship with clients	10.392	32	0.000	1.500	1.21	1.79
company relationship with government department	7.465	32	0.000	1.227	0.89	1.56
Company relationship with the architectural firm	4.469	32	0.000	0.955	0.52	1.39
Company relationship with creditors	-.209	32	0.836	-0.045	-0.49	0.40
Company relationship with contractor	12.727	32	0.000	1.561	1.31	1.81
Company relationship with suppliers	8.701	32	0.000	1.258	0.96	1.55

#### **4.4.4 Organization resources and capabilities**

##### **a) Competitive advantages of the firm over other competitors**

Resources and capabilities of architectural consulting firm are considered as the key parameter of the the internal business environment. In this, areas such as Corporate image, Technology and Innovation, Financial capability, Project management skills, and Organization and human resources assessed to see their degree of advantage the firm posses over other competitors. Question on this aspect was designed in such a way that respondents can tick box to indicate how they see the degree of contribution of each factor to the competitve advantage of of one firm over the other. Rating such as Nothing at all, Low, Moderate, High or Very high were used to rank each factor depending to the respondents views. Research findings showed that marketing capability and financial capability are not statistically significant on competitive advantage of the firm as shown on table 4.5b. The results showed corporate image is the first ranked factor that once the firm possess will be sounding advantage of the firm over the other competitors. Literature review shows Firms' corporate image is established by the opinions of the customer towards the customer services or products. This findings match with the literature review in construction industry , it explain most construction firms in the construction industry displays pictures of completed projects in their offices, this is used as an indirect mechanism to communicate their good reputation to clients and advisors. The results showed the mean value of 4.30 as the total average marks given by respondents on contribution of corporate image on the competitive advantage of the firm.

The second ranked factor that has contribution on the firms' competitive advantage is project management skills. The construction performance relies extensively on project team work and problem solving at the site level. This findings match with the literature reviews, most firms in the literature review ranked management skills as the top factor on thier competitive advantage. Literature reviews explains good project management skills will result to quality, productivity and performance. Having good management skills will enable firm to perform without any deviation to previosly set time, cost and quality (Tan, 2008). The results showed the mean value of 4.12 as the total average marks obtained from the respndents.

The third ranked factor is technology and innovation which scored the mean value of 4.06 as the total average marks obtained from the respndents. Innovation is another source of distinctive capabilities. However, literature review shows it is most of the time difficult to create a competitive advantage through innovation because it is costly and uncertain. Furthermore, it is hard to manage and secure rewards for firms through innovation alone, it has to be linked with other distinctive capabilities particulary organization structure for it to be a competitive advantage resources. An organization structure is a formal framework by which organization tasks are divided, grouped and coordinated. Good organization structure will facilitate employees to work effectively which will eventually increase productivity, quality and performance. The results showed a mean value of 4.06 as the total average marks given by respondents. Table 4.5a below shows the summary of respondents on the organizational resources contributing to competitive adavante of the firm.

**Table 4.5a Factors contributing to competitive advantage of the firm**

Factors	Mean	Std. Deviation	Rank
Advantages that company has on the corporate image	4.30	0.728	1
Advantages that company has on project management skills	4.12	0.893	2
Advantages that company has on technology and innovation	4.06	0.747	3
Advantages that company has on organization and human resources	4.06	0.788	4
Advantages that company has on marketing capability	3.76	0.792	5
Advantages that company has on financial Capability	3.52	0.834	6

**Table 4.5b T-test on factors contributing to competitive advantage of the firm**

Factor	Test Value = 3.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Corporate image	6.335	32	0.000	0.803	0.54	1.06
Technology and innovation	4.308	32	0.000	0.561	0.30	0.83
Marketing capability	1.869	32	0.071	0.258	-0.02	0.54
Financial Capability	0.104	32	0.918	0.015	-0.28	0.31
Project management skills	3.996	32	0.000	0.621	0.30	0.94
Organization and human resources	4.086	32	0.000	0.561	0.28	0.84

**b) Factors for the firm to remain competitive in the construction industry**

The question was designed in such a way that respondents can tick in the appropriate box to indicate factors such as finance, risk management, quality, flexibility/diversity, technology and personnel whether they are not at all, low, moderate, high or very high contribute for the firm to remain competitive in the industry. The mean value for the factors were calculated together with standard deviation and then all the factors were ranked. Also in this area, the literature review did not rank factors in the order of their outcomes to the firms, it only explained the

need of these factors for the firms to remain competitive in the industry. Table 4.5 shows the mean value, standard deviation and the rank for each foactor.

The research findings showed that, finance is not statistically significance for the firm to remain competitive in the construction industry as it has signficance difference greater than 0.05 as shown on table 4.6b below. The results showed that, Architectural consulting firms considered flexibility/diversity to be the most important factor and they ranked it as the first factor that contribute for the firm to remain competitive in the construction industry. Litereture reviews explain flexibility of business operations, ability to rapidly adjust to changing clients needs and diversification and expansion of markets contribute highly to the competitiveness of the firm (Mandelbaum, 1978) . The results showed a mean value of 4.58 as the total average marks given by the respondents which is the highest score.

Tha second ranked factor that has contribution for the firm to remain competitive is Quality. Architectural consulting firms considered Quality as a competitive weapon in the marketplace which engenders competitive advantage by providing products that meets or exceed customer needs and expectations. The results showed a mean value of 4.55 as the total average marks given by the respondents. Findings match with the literature reviews, it explain a firm can increase its chance of remaining competitive in the industry by improving it products quality.

The third ranked factor that contribute for the firm to remain competitive is personnel. A number of well qualified personnel having a good experience and exposure to various project gives firm ability to remain competitive in the construction industry. The results showed a mean value of 4.39 the total average marks given by the respondents.



These findings match with the literature review. Flexibility, Quality and personnel have been consecutively shown as the major factors for the firms to remain competitive in the industry.

Table 4.6a below shows the summary of respondents on the way factors such as finance, risk management, quality, flexibility/diversity, technology and personnel they contribute for the firms to remain competitive in the construction industry.

**Table 4.6a Factors contributing for the firm to remain competitive in the industry**

Factors	Mean	Std. Deviation	Rank
Flexibility/diversity	4.58	0.614	1
Quality	4.55	0.711	2
Personnel	4.39	0.788	3
Technology	4.24	0.792	4
Risk management	4.03	0.810	5
Finance	3.48	0.755	6

**Table 4.6b T-test on Factors contributing for the firm to remain competitive**

Factors	Test Value = 3.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Finance	-0.115	32	0.909	-0.015	-0.28	0.25
Risk management	3.763	32	0.001	0.530	0.24	0.82
Quality	8.445	32	0.000	1.045	0.79	1.30
Flexibility/diversity	10.066	32	0.000	1.076	0.86	1.29
Technology	5.387	32	0.000	0.742	0.46	1.02
Personnel	6.515	32	0.000	0.894	0.61	1.17

#### 4.4.5 Competitive strategies

##### a) Firm competitive strategies

The question in this part was designed to have respondents opinions on the best competitive strategy to use for the firm to attain competitive consistency. Four

strategy, cost leadership, Differentiation, focus and growth strategy were presented for the respondents to rate each strategy and rating such as not applicable, low, moderate, high and very high were used whereby the respondents were supposed to tick in the appropriate rate. The mean value for all factors were calculated together with their standard deviation and then all the factor were ranked.

The research findings showed that two strategies, Cost laedership and Differentiation strategies are statistically significant for the firm to attain competitive consistency as shown on table 4.7b below. The results showed differentiation strategy is the first ranked strategy that is mostly used by the architectural. The results showed a mean value of 4.15 as the total average marks given by the respondents. Differentiation is obtained by building firm's reputation, offering high quality of product and services, faster project completion, innovative financing methods, innovative project management methods, sustainable practice and social responsibility and also offering additional services to clients.

Architectural consulting firms considered cost leadership as the second emphasized competition method. The results showed a mean value of 4.06 as the total average marks given by the respondents. Cost leadership is achieved by standardization of product or services, superior training of personnel, effective control of labor and materials, careful selection of suppliers, technological advancement and incentive programs for consulting improvement or resource saving.

The third ranked strategy that is emphasized by architectural consulting firm is focus strategy. This is applied by offfoering a particular type of project, operating in a

particular region, or serving a particular type of client. The results showed a mean value of 2.73 as the total average marks given by the respondents.

These findings match with the literature review, Differentiation and cost leadership being close ranked, it shows the two strategy can be used together in the firms just like it has been explain in the literature review.

Table 4.7a below shows the summary of the respondents on the best competitive strategy to use for the firm to attain competitive consistency. Bearing on the percentage scores obtained from the respondents, the score of 2.50 and above was obtained for every strategy, it shows each strategy can be used and they can be intergreted to help firms to attain competitive consistency depending to the competition situations and market condition in the industry.

**Table 4.7a. Competitive strategies**

Strategies	Mean	Std. Deviation	Rank
Differentiation	4.15	0.755	1
Cost leadership	4.06	0.747	2
Focus	2.73	1.281	3
Growth strategy	2.64	1.025	4

**Table 4.7b T-test on competitive strategies**

Strategis	Test Value = 2.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Cost leadership	11.994	32	0.000	1.561	1.30	1.83
Differentiation strategy	12.565	32	0.000	1.652	1.38	1.92
Focus strategy	1.019	32	0.316	0.227	-0.23	0.68
Growth strategy	0.764	32	0.450	0.136	-0.23	0.50

#### **b) Factors affecting implementation of competitive strategies**

Each factor impact is at different level and carries a different force. Table 4.6b below shows the mean value and standard deviation of each factor. Architectural consulting

firms considered organization structure technology know-how is the first most implementation barrier having the mean value 4.21 as the total average marks given by the respondents which is contrary to literature review as literature review suggests technology know how as the least factor affecting implementation of strategies. Second considered factor is organizational structures which match exactly to the literature reviews; it has scored the mean value of 4.12 as the total average marks given by the respondents. They point out that changes in the competitive environment require adjustments to the organizational structure. If a firm lags in making this realignment, it may exhibit poor performance and be at a serious competitive disadvantage. Third ranked factor is human resources having the mean value of 3.97 as the total average marks from the respondents. Architectural consulting firms considered human resource as the core link between different departments in an organization, their communication among each other and their relationship. When implementing a new strategy it is necessary that the separate functions of an organization work together and not against each other. Commitment for the strategy considered to be the fourth force that affecting implementation of strategy. The results showed scored the mean value of 3.91 as the total average marks given by the respondents. Strategy implementation effort may fail if the strategy does not enjoy support and commitment by the majority of employees and middle management. Fifth ranked factor is communication, when vertical communication is frequent, strategic consensus is enhanced and an organization's performance improves. Results showed a mean value of 3.88 as the total average marks given by the respondents. General agreement regarding strategy in the organization is considered as the sixth factor affecting competitive strategy

implementation. Firm must achieve general agreement (consensus) both within and outside the organization in order to successfully implement business strategies, consensus differ across levels will result to failure to implementation of strategies. Results of respondents on general agreement regarding strategy in the organization showed a mean value of 3.82 as the total average marks. Administrative system, strategy executor and strategy formulation were ranked together in the seventh position. They showed a mean value of 3.76 as the total average marks given by the respondents. The three factors depend to one another; good administrative system will give good strategy executor and hence good strategy formulation. Failure of one aspect will disturb the whole system and hence will affect implementation of the strategies. Both organization culture and implementation strategy were ranked in the eighth position. Implementation of strategy depend on the organization culture, it positively related to organizational culture along the dimensions of learning and development, participative decision making, power sharing, support and collaboration, and tolerance for risk and conflicts which all forms part of an organizations cultural environment. Implementation involve strategy adjustment during the implementation stage by introducing new norms and practice, articulating strategic goals and nominating a task force and using the involved parties to convince employees about the decided course of actions. The results showed a mean value of 3.67 as the total average marks given by the respondents. Last considered factor is uncertainty; this is due to unclear information on the strategy or need for the new strategy and the outcome of the introduced strategy. The results showed a mean value of 2.85 as the total average marks given by the respondents.

These findings to a large part match with the literature review as they show each factor's impact is at a different level and carries different force. The only difference between the literature reviews and the findings is that, literature reviews show human resources as the first key factor affecting strategy implementation while findings show technology know-how is the first factor affecting strategy implementation.

Table 4.8a below shows the summary of the respondents on the factors affecting implementation of strategies.

**Table 4.8a. Factors affecting implementation of strategies**

Factors	Mean	Std. Deviation	Rank
Technology know-how	4.21	0.781	1
Organization structure	4.12	0.650	2
Human resources	3.97	0.810	3
Level of commitment	3.91	0.879	4
Communication	3.88	0.927	5
Organization agreement regarding strategy	3.82	0.683	6
Implementation tactics	3.76	0.816	7
Strategy formulation	3.76	0.902	8
Administration system	3.76	1.091	9
Strategy executors (Managers and employees)	3.67	1.091	9
Organizational culture	3.67	1.216	10
Uncertainty	2.85	1.228	11

**Table 4.8b T-test on factors affecting implementation of strategies**

	Test Value = 2.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Administrative system	6.624	32	0.000	1.258	0.87	1.64
Organization structure	14.330	32	0.000	1.621	1.39	1.85
Strategy formulation	8.005	32	0.000	1.258	0.94	1.58
Strategy executors	6.624	32	0.000	1.258	0.87	1.64
Commitment on strategy	9.208	32	0.000	1.409	1.10	1.72
Adoption tactics	8.208	32	0.000	1.167	0.88	1.46
Communication	8.542	32	0.000	1.379	1.05	1.71
General agreement	11.094	32	0.000	1.318	1.08	1.56
Uncertainty	1.630	32	0.113	0.348	-0.09	0.78
Human resources	10.430	32	0.000	1.470	1.18	1.76
Technology know-how	12.594	32	0.000	1.712	1.44	1.99
Organizational culture	5.511	32	0.000	1.167	0.74	1.60

#### **4.4.6 Competitive priorities**

Competitive priorities act as strategic capabilities and which can help firms to create, develop and maintain competitive advantage. The question in this part was designed to see how architectural consulting firms see flexibility/diversity, quality, cost, delivery, ability to solve disputes, and health and safety as either not at all, low, moderate, high or very high competitive priorities to the construction industry. The mean values for all priorities together with their standard deviation were calculate and ranked as shown in table 4.7 below.

The research findings showed that all factor for competitive priorities were statistically significant as shown on T-test results on table 4.9b below. The results showed the quality of the service is the first ranked competitive priority. Quality it is the competitive weapon in the marketplace. It engenders competitive advantage by providing product that meet or exceed customer needs and expectations. The results showed a mean value of 4.33 as the total average marks given by the respondents. Cost and delivery considered to be second and third priorities respectively. Cost leadership and differentiation are the major tools of cost priorities, where delivery requiring satisfying the need and wants of the customers. Results showed a mean value of 4.09 as the total average marks given by the respondents for both cost and delivery. Flexibility and ability to solve disputes were considered to be at the fourth and fifth priorities of competitive advantage. Flexibility is the ability to respond effectively to changing environment, where solving disputes arising during construction enhance delivery and good workmanship which in turn lead to quality. The results showed a mean value of 4.06 as the total average marks given by the

respondents for both flexibility and ability to solve disputes. Architectural consulting firms considered health and safety as the last competitive priorities with the mean value of 3.91 as the total average marks given by the respondents.

These findings match with the literature review. Literature review suggested all priorities should be taken into consideration for the firms to create, develop and maintain competitive advantage

Table 4.9a below shows the summary of the respondents on the competitive priorities

**Table 4.9a competitive priorities**

Competitive Priorities	Mean	Std. Deviation	Rank
Quality	4.33	0.736	1
Cost	4.09	0.914	2
Delivery	4.09	1.042	3
Flexibility	4.06	0.899	4
Ability to solve disputes	4.06	0.899	5
Health and safety	3.91	0.980	6

**Table 4.9b T-test on competitive priorities**

Factors	Test Value = 3.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Flexibility	3.581	32	0.001	0.561	0.24	0.88
Quality	6.504	32	0.000	0.833	0.57	1.09
Cost	3.714	32	0.001	0.591	0.27	0.91
Delivery	3.258	32	0.003	0.591	0.22	0.96
Ability to solve disputes	3.041	32	0.005	0.561	0.19	0.94
Health and safety	2.398	32	0.022	0.409	0.06	0.76

#### 4.5 Chapter Summary

Data collection, analysis and interpretation of the data were carried out in this chapter using descriptive analytical designs. Descriptive analytical design was used to get findings, the findings were then presented by the use of text and tabular form. Conclusion of the analyzed data is on the next chapter where it gives the brief outcome of the research and recommendations.



## **CHAPTER FIVE**

### **CONCLUSION AND RECOMMENDATION**

#### **5.1 Introduction**

This chapter concludes the study on; the research objectives particularly research specific objectives and answer the research questions, recommendation and also the potential future research areas are also discussed in this chapter.

#### **5.2 Conclusion**

The main objective of the study was to build competitive consistency of architectural consulting firms in Tanzania construction industry, guided by three specific objectives which were;

- i. To examine the competitive strategies used by the architectural consulting firms.
- ii. To identify factors affecting adoption of available competitive strategies.
- iii. To recommend competitive strategies that will bring competitive consistency to architectural consulting firms.

Basing on the specific objectives and research questions which were formulated from the objectives, the conclusion from this study are as follows;

##### **5.2.1 Competitive strategies used by the architectural consulting firms.**

In examining the competitive strategies used by the architectural consulting firms, various categories on external and internal environment were used to determine the innermost and vital sources and linkages which have a great impact on the

formulation of competitive strategies to be used by architectural consulting firms for consulting services.

First, the external environment for consulting service market in Tanzania construction industry was examined. Examination of external environment helps architectural consulting firms identify their opportunities and threats in a market, in this it was found that the high rivalry among competitors, high bargaining power of clients and many entrants in the construction industry being the most external environment factors which have a great impact on the formulation of competitive strategies to be used by the architectural consulting firms.

Also in the external environment for consulting service market, the architectural consulting firms relationships with various parties was found that architectural consulting firms have to engage in various kinds of relationships with project participants. Good relationships with contractors, clients, suppliers, government department and other architectural firms will itself act as competitive strategy and help architectural consulting firm to achieve superior performance in competition and technically gives the hints of formulating their competitive strategies.

Secondly, the internal environment for architectural consulting firms was examined. This examination identifies their internal strength and weaknesses that eventually help to formulate relevant competitive strategies which match architectural consulting firms' distinct capabilities in a selected market. In this the organization resources and capabilities was found that all categories forming the organization resources and capabilities such as good corporate image, good project management skills, advancement in technology and innovation, good human resource unit,

marketing capability and firms' financial capability have a great impact in formulating strategies.

Third, available competitive strategies used by the architectural consulting firms were examined. Literature reviews shows that porter's generic competitive strategies are widely adopted in many industries. The results in this study show that these strategies are also effectively applied by architectural consulting firms in the construction industry; it was found that differentiation and cost leadership are the most and widely used competitive strategies by architectural consulting firms in Tanzania and few other architectural consulting firms make the use of all four strategies that is differentiation, cost leadership, focus strategy and growth strategy. There are positive correlations between competitive strategies and competitive consistency; those who use all competitive strategies achieve higher performance than others which eventually gives them competitive consistency. The positive correlations illustrates that competitive strategies enable architectural consulting firms to use their competitive resources in competition effectively, consequently to attain competitive consistency and achieve superior performance.

After examining the available strategies used by architectural consulting firms, researcher also determined the key factors for the firms to remain competitive in the industry. The following factors were concluded to be the key factors; flexibility/diversity, quality, personnel and technology. Architectural firms must be flexible in adopting competitive strategies and must have highly trained personnel for formulating the strategies depending to the current market situation and imposing quality services to the customers for them to remain competitive in the industry.

Apart from examining competitive strategies used by architectural firms and key factors for the firms to remain competitive in the industry, researcher also examines the competitive priorities. Competitive priorities act as strategic capabilities and can help firms to create, develop and maintain competitive advantage. It was found out that Quality, cost and delivery being the most competitive priorities to help firms to create, develop and maintain competitive advantage for architectural consulting firms in Tanzania construction industry.

### **5.2.2 Factors affecting adoption of competitive strategies.**

On identifying factors affecting adoption of competitive strategies by architectural consulting firms in Tanzania construction industry, the findings show all factors which are technology know-how, organization structure, human resources, level of commitment, communication, general agreement regarding strategy in the organization, administration system, strategy formulation, strategy executors (Managers and employees), implementation tactics, and organization culture are relevant in affecting the adoption of competitive strategies.

### **5.3 Recommendations**

This study has examined the competitive strategies used by architectural consulting firms and identifies factors affecting architectural consulting firms in Tanzania construction industry to adopt competitive strategies. The study has also examines relationship of architectural consulting firms with various part, key factors for the firm to remain competitive in the industry and the competitive priorities that architectural consulting firms can consider to create develop and maintain

competitive advantage. Therefore following the above conclusions, the study makes the following recommendations:

1. Architectural consulting firms should use all the available competitive strategies, which are differentiation, cost leadership, focus and growth strategies. Together with these strategies, they should also consider key factors such as flexibility, quality, and personnel for the firm to remain competitive in the construction industry.
2. Architectural consulting firm should establish good relationships with various parties such as contractors, clients, suppliers, government department, and other architectural consulting firms in the construction and government. Establishing good relationship with these parties enable architectural consulting firms to have more opportunities to obtain contract awards and improve their efficiency of consulting services which will significantly help firms to remain competitive in the construction industry.
3. Architectural consulting firms should have the tendency of analyzing their internal resources and capabilities such as corporate image, project management skills, technology and innovation, organization human resources, marketing capability and financial capability. This analysis will help architectural consulting firms to understand their competitiveness and develop their competitive strategy which will enable them to remain competitive in the construction industry.
4. Architectural consulting firms should consider all factors as a threat to the adoption of competitive strategy and should adjust their firms to overcome these factors so as to remain competitive in the industry. Also they should

consider the following relative areas to successful adoption of strategies in their firms;

- Developing control and feedback mechanisms for any competitive strategy they will adopt in their firms.
- Knowing how a supportive culture for adoption should be created.
- Enhancing effective consensus within all managerial level of the firms for adoption of the competitive strategy.
- Knowing implementation tactics, firms should know how to develop a model for direct decision or implementation activity, how creating strategy can affect implementation and exercising implementation under leader's control.

#### **5.4 Contributions to knowledge achieved by the study**

1. Before now architectural consulting firms have had their different ways/strategies of winning contract awards from prospective clients. This research has enabled the integration of all various strategies into well defined competitive strategies for architectural consulting firms.
2. The study has provided knowledge on competitiveness and its usefulness in construction industry.

#### **5.5 Areas for future research**

- The study has provided a platform for further research on competitiveness of other consulting firms such as engineering consulting firms, quantity surveying consulting firms in Tanzania construction industry.

- The further work can be conducted to compare architectural consulting firms' competitiveness and competitive strategies between Tanzania and other countries or regions. The findings will be useful for architectural consulting firms especially newly established architectural consulting firms preparing to enter into regional market.
- Further analysis on the growth strategy for other consulting firms, such as Engineering consulting firms and Quantity surveying consulting firms should be considered.

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**APPENDICES****COVER LETTER FOR QUESTIONNAIRES SURVEY**

Company name  
P.o. Box .....  
Dar es Salaam

Dear Sir/Madam,

**An invitation for participation in a questionnaire survey**

My name is Emmanuel Francis; I am a student at Ardhi University pursuing Master of Science in Construction Economics and Management in the School of Architecture, Construction Economics and Management (SACEM). I am doing the research on the *assessment of competitiveness of architectural consulting firms in Tanzania construction industry*. In order to complete the ongoing stage of my research, I write to seek for your further help by participating in a questionnaire survey. Please find the attached questionnaire, and kindly provide your opinions and judgments on the questions.

I believe that the findings from this survey will also help the professionals in our industry to gain more understanding on competition practice in the local construction market. With such understanding, business should be more confidence in their decision-making on competitive strategy, thus the overall business performance and competitive consistency can be improved at the whole industry level.

All the data collected from this questionnaire survey will be kept strictly confidential and used solely for the academic research purpose. It would be greatly appreciated if you could complete the questionnaire and allow me to collect before **06 February, 2017**.

I thank you again for your kind participation in this survey. And I shall continue to report to you the research progress. If you have any queries about this questionnaire, please contact me at: **+255655426611**

I am looking forward to hear from you.

Yours sincerely,  
Francis, Emmanuel  
School of Architecture, Construction Economics and Management (SACEM)  
Ardhi University

**APPENDIX B**  
**SAMPLE QUESTIONNAIRES**

**Introduction**

For the purpose of this study take note of the following:

**Competitiveness** is the ability of a company or a product to compete with others and the desire to be more successful than other people. Literally, the term describes the ability of firms and industries to stay competitive which, in turn, reflects their ability to improve or protect their position in relation to competitors which are active in the same market.

**Objectives of the study;** The main objective is to assess competitive consistency of architectural consulting firms in Tanzania construction industry. The following are the specific objective of the study;

- To examine the competitive strategies used by the architectural consulting firms.
- To identify factors affecting adoption of available competitive strategies.
- To recommend competitive strategies that will bring competitive consistency to architectural consulting firms.

**PART 1: Respondent's profile**

Company name; .....

Position in the organization: .....

Profession: .....

Sex: .....

Years of experience in architectural consulting services: .....

Have you ever been employed for any construction work: .....

Type of client: (a) Public [ ] (b) Private [ ] (c) Both [ ]

Level of education: .....



**PART 2: Company profile**

1. The work experience of your company in Tanzania construction industry (numbers of years): *(Tick where appropriate)*

< 3       3 - 5       6 - 10       11- 20       > 20

2. The size of your company (number of full time employees):

< 20       20 – 30       31 – 40       41- 50       > 50

**PART 3; External environment for consulting service market**

3. Please indicate the extent to which you agree with the following statement:

*The rating should be as follows; 1= strong disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = strongly disagree. (Tick where appropriate)*

Description	1	2	3	4	5
There are many new entrants					
Clients have high bargaining power					
There are substitute services					
The rivalry among competitors is high					

4. Please indicate the relationship of your company with the following parties:

*The rating should be as follows; 1= Nothing at all, 2 = low, 3 = moderate, 4 = high, 5 = very high. (Tick where appropriate)*

Description	1	2	3	4	5
Relationship with clients					
Relationship with government departments					
Relationship with other architectural					
Relationship with creditors					
Relationship with contractors					
Relationship with suppliers					

**PART 4: Organizational resources and capabilities**

5. Please indicate the degree of advantages that your company has over your competitors in the following listed areas:

*The rating should be as follows; 1 = Nothing at all, 2 = low, 3 = moderate, 4 = high,*

*5 = very high (Tick where appropriate)*

<b>Description</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Corporate Image</b>					
Organization's credibility					
Qualification of the company					
Project performance records					
<b>Technology and innovation</b>					
Technology know-how					
Technology advancement					
<b>Investment on R&amp;D</b>					
Conversant with local practice					
<b>Marketing capability</b>					
Market coverage					
Location of establishment					
Procurement ability					
Ability to forecast market changes					
Relationship with clients and contractors					
<b>Financial capability</b>					
Financial status					
Credibility grade					
Payment to subcontractors or suppliers					
Loan payment					
<b>Project management skills</b>					
Site progress management					
Quality control					
Coordination with contractors					
Contract and risk management					
Environmental and safety management					
Knowledge about local construction law					
<b>Organization and Human resources</b>					
Organization structure and culture					
Quality of personnel					
Effectiveness of training program					
Effectiveness of internal cooperation					

6. What will you consider the key factors for the firm to remain competitive in the industry?

*The rating should be as follows; 1 =Not at all 2 = low, 3 = moderate, 4 = high, 5 = very high. (Tick where appropriate)*

<b>Factors</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Finance					
Risk management					
Quality					
Flexibility/diversity					
Technology					
Personnel					

### **PART 5: Competitive strategies**

7. Please indicate the degree to which the following competition methods have been emphasized by your company in the current practice:

*The rating should be as follows; 1 = Not applicable, 2 = low, 3 = moderate, 4 = high,*

*5 = very high. (Tick where appropriate)*

<b>Description</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Cost leadership</b>					
Standardization of product or services					
Superior training of personnel					
Effective control of labor and material					
Careful selection of suppliers					
Technological advance					
Incentive programs for productivity improvement or resource saving					
<b>Differentiation</b>					
Company's reputation					
Offering higher quality of services and product					
Faster project completion					
Innovative project financing methods					
Innovative project management methods					
Sustainable practice and social responsibility					
Offering additional services to clients					
<b>Focus</b>					
Offering a certain type of projects					
Operating in a particular region					
Serving a certain type of clients					
<b>Growth strategy</b>					
Entry into new locations or regions					
Expanding by acquisition or merger					
Engaging in new business (operation, real estate)					

8. What strategy do you think is the best strategy to use for architectural consulting firms to have competitive consistency?

.....

.....

9. Please indicate the degree to which the following factors affecting competitive strategies implementation:

*The rating should be as follows; 1 = Not at all 2 = low, 3 = moderate, 4 = high, 5 = very*

*high. (Tick where appropriate)*

<b>Factors</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Administrative system					
Organization structure					
Strategy formulation					
Strategy executors (Managers, employees)					
The level of commitment for the strategy					
Adoption tactics					
General agreement regarding strategy in the organization					
Communication (Information availability and accuracy)					
Uncertainty					
Human resources					
Technology know-how					
Organization structure					
Organization culture					

**PART 6: Competitive priorities**

10. Please indicate the degree to which the following competitive priorities methods have been responded by your company in the current practice:

*The rating should be as follows; 1 = Not at all, 2 = low, 3 = moderate, 4 = high, 5 = very high. (Tick where appropriate)*

<b>Description</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Flexibility/diversity					
Quality					
Cost					
Delivery					
Ability to solve disputes					
Health and safety					

