

CATEGORIZATION OF THE DUTIES AND REQUIRED COMPETENCIES OF A MANAGEMENT CONTRACTOR

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Abstract

Although, the traditional procurement system is more understood and more popular in usage when compared to other construction procurement systems, evidence from previous studies has reveals that management contracting procurement system is most suitable for large and complex projects, when projects are required to be delivered on time and when flexibility is desired during construction. It can be argued that the reported benefits of the management contracting system may as a result of the roles and duties performed by the management contractor. However, limited attention has been given to these duties performed by the management contractor which has resulted in the reported benefits of the system and also the required competencies for a management contractor to performing these duties. The aim of the study was to create a better understanding on the duties of a management contractor and the required competencies for a management contractor to perform these duties. Using documentary analysis and semi-structure interviews, data for this study will be collected from key roles players of management contracts in South Africa. The contribution of this study will help construction clients and the construction industry in the recruitment, selection, performance management and evaluation of management contractors. And, also add to the knowledge base for continuous professional development and training for aspiring management contractors. In addition, this study is also being used in establishing a scope for an ongoing PhD research.

Keywords: Construction procurement, Duties of a management contractor, Management contracting, Required competencies for a management contractor

1 Introduction

In recent years, the increasing needs for integration of project team, improved collaboration, risk sharing, early contractor's involvement and more relational relationship in construction project delivery system, project sizes and complexities as well as the need for enhancing the achievement of project outcomes of time, cost and quality, together has contributed to the development and adoption of other procurement system from the most common traditional procurement system. As indicated in the study by Al-Harhi et al. (2014), the shift from the traditional system has resulted in several changes to the organization, roles and systems adopted for development schemes. And, in conformity, management contracting procurement system has continued to gain more adoption by construction clients for their construction project delivery. The Chartered Institute of Building (CIOB, 2010) survey report on procurement in the construction industry indicated that as construction projects increases in complexity and value, the management contracting system tends to be the preferred choice of construction procurement adopted by construction clients. As well, in a Survey on construction

industry indicators by the Construction Industry Development Board (CIDB, 2014: 17) management contracting system was indicated to be the second mostly used procurement system by national and provincial departments together after the traditional system.

The management contracting system has been adjudged to be most suitable for large and complex projects, and when projects are required to be delivered on time and flexibility of construction is desired. In a study evaluating management contracting and investigating the significant difference in clients perspective of performance criteria between management and traditional procurement systems by Sidwell (1983) and Naoum (1994) respectively; the benefits in management contracting system were attributed to the improved integration of project team members, flexibility of the system, breaking down of work into packages with total competition of work packages, improved collaboration, risk sharing, early contractor's involvement and more relational relationship enhanced by the management contractor.

The distinguishing feature in the management contracting system from the traditional system is the introduction of a management contractor at an early stage of the project. According to Murdoch and Huges (2008: 59), the introduction of the management contractor allow for the contribution of the management contractor's experience and expertise in the design and construction management of projects. Therefore, it may be argued that the reported benefits of the system are as a result of the roles and duties performed by the management contractor. While research continuous to emphasize on the benefits and suitability of using the system (see Naoum, 1994; Naoum and Langford, 1987; Sidwell, 1983; Ward et al., 1991). However, limited attention has been given to the duties performed by the management contractor which has resulted in the reported benefits of the system and the required competencies by the management contractor in performing these duties.

The focus of this research therefore is to analyze the duties performed by management contractors and investigate the required competencies for management contractors to perform their duties effectively, when a construction client decides to entrust the management of construction project to a management contractor (Indicating the choice of a management contracting procurement system).

2 Management Contracting Procurement System

Management contracting is an established procurement system in the construction industry which is said to evolved from the United Kingdom (UK) (Sidwell, 1983). According to Murdoch and Huges (2008) the system has been in use for considerable time even though it is only in 1987 there has been a standard form of contract for it. The horizon factory in Nottingham for John payer limited designed by Arup and Associates and built by Bovis limited, as well as the British library in London where among the earliest projects built using this system (Murdoch and Hughes, 2008; Sidwell, 1983).

The international standard organization (ISO 10845-1 2010) describes a management contracting system as a contract in which a contractor provides consultation during the design stage and is responsible for planning and managing all post contract activities and for the performance of the whole contract. Several studies have described the system as consisting of 100% sub-contracting since every item of the work is subcontracted to the works contractors (see Al-Harathi et al., 2014b; Murdoch and Hughes, 2008; Naoum, 1994; Sidwell, 1983; Ward et al., 1991). However, in the guidance on procurement and contract strategies provided by the Institute of Civil Engineers (ICE, 2005: 7) management contractors may also participate in actual construction of some of the construction works. Whatever the case however, there is a consensus report that only the management contractor goes into construction work contract with the client for the entire works, and then takes responsibility for the administrative and

operational works of the contract, as against the case in a construction management system or a traditional system, where work contractors also goes into direct contract with clients.

2.1 *Difference between Management Contracting and the Traditional Procurement System*

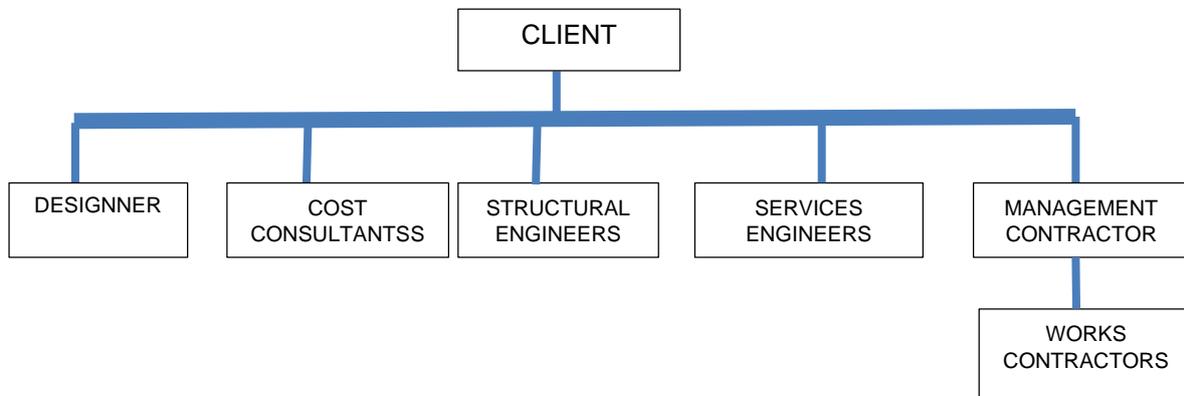


Figure 1. The management contracting system

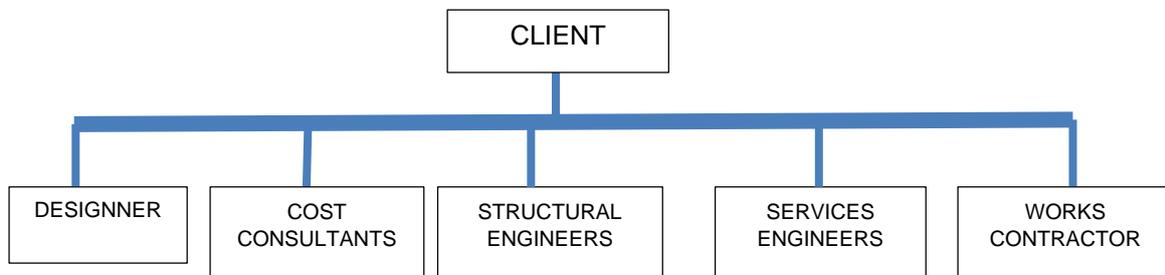


Figure 2. The traditional system

On review of organization structure and contractual relationships of management contracting and the traditional system of procurement as provided by (Al-Harhi et al., 2014b; Murdoch and Hughes, 2008; Naoum, 1994; Naoum and Langford, 1987; RICS, 2013; Sidwell, 1983; Ward et al., 1991), Figure 1 and 2 was developed to illustrates the contractual relationship and organization structure in expressing the differences of a management contracting and traditional procurement system respectively.

As indicated in the figure 1; considering the management contractor and work contractors, only the management contractor have a contractual relationship with the client and then appoints and manages the work contractors who are contractually accountable to the management contractor. In figure 2, the work contractor has direct contractual relationship with the client. this will result in a more active role by the client unlike in a case of management contracting where clients take a more detached role as suggested by (Naoum and Langford, 1987).

Also, the management contractor is indicated to be elevated to the same level as the consultants enabling him offer services both at the design stage and as well at construction stage. With this arrangement, the consultants will be having access to the expertise and experience of the management contractor at the design stage which may result in an improved consultancy services from the consultants. According to Murdoch and Hughes (2008) the opportunity provided for contractors to have the same status with the consultants is the major reasons why contractors favoured a management contracting system to the traditional system, where

contractors are directly placed under the scrutiny of consultants or the project principal agent, which usually are architect's depending on the type of project.

In addition, in management contracting, management contractors are engaged at the early in the project and facilitate the overlap of designs and construction being a member of the design team as well as the construction team as oppose to the traditional system in which there is separation of design and construction and designs are usually completed before construction commences. This has been attributed to the flexibility and early completion feature of a management contracting system(see Naoum, 1994; Sidwell, 1983 and Ward et al., 1991).

Furthermore, in management contracting system, sub-contracting is a major distinguishing feature. The management contractor does no construction works but rather subcontract all the works, which are usually broken down into work packages to the work contractors as submitted by (Al-Harathi et al., 2014b and Murdoch and Hughes, 2008). Contrary to the traditional system, where the work contractor is responsible for the actual construction of the construction work and may use subcontracting as well. However, according to ICE (2005:7) guidance on procurement and contract strategies, management contractors may also participate in actual construction work. Also, in management contracting, management contractors usually goes into a fee contract and are usually paid a prime cost of all works done plus the fee. Although, Murdoch and Hughes (2008) argued that certain direct works such as site staffing, provision of labour and materials and sundry cost services provided by the management contractor should be dealt with on a lump sum basis instead of cost reimbursement. But contractors in a traditional system are often paid a lump sum for the contract.

From the foregoing, these differences in management contracting from the traditional system appear to be responsible for the added advantages of that have been attributed to the system over the traditional procurement system. Thereby, making management contracting a more suitable procurement route particular for large and complex projects, and when early completion and flexibility during construction is desired.

2.2 Duties of a Management Contractor

In a case study involving 39 management contracts and 30 traditional contracts in UK, to investigate whether the means of procurement influenced project performance, Naoum (1994) reported that management contractor's liability and responsibility is not clear and there is not enough evidence to support how management contracting reduces overall building cost and quality of projects. This report may be an indication of a gap in knowledge on the duties performed by management contractors. However, Murdoch and Hughes (2008: 64) asserted that due to the duties performed by the management contractor, the roles of a contract administrator and a quantity surveyor may not be defined in a management contract.

Also, from the foregoing on the differences between management contracting and a traditional system, the benefits in management contracting could be attributed to the duties performed by the management contractor as a result of transition of responsibility of the management contractor in being a consultant as well as a contractor, providing services at the preconstruction stage and at the construction stage.

Owing to the different roles and responsibilities of the management contractor in a management contracting system, the duties performed by the management contractor can be argued to be clearly distinct from that of a general contractor in a traditional system. This calls for clarification of the duties of the management contractor and to categorize them accordingly in the different phases of a construction project.

Essentially, the duties performed by the management contractor maybe divided into pre-construction period duties and construction period duties as suggested by Murdoch and Hughes (2008: 64) with the management contractor carrying out duties such as professional team

integration, advising on breakdown of work packages and assisting with negotiations at the pre-construction stage; and duties such as programming and planning, monitoring off-site preparation work, instituting effective cost control techniques, labour relations and site management at the construction stage as well as providing site facilities and services. Sidwell (1983) in his study submits that the two most important duties of the management contractor may be in subcontractors control and design team integration. Similarly, Ward et al (1991) has reported coordination of work responsibilities and liabilities and control functions as the duties performed by a management contractor. These identified management contractor duties appears comparable to management duties as identified by Mintzberg (1973: 92) which includes interpersonal role of figurehead, leader and liaison; informational role of monitor, disseminator and spokesman; and decisional role of entrepreneur, disturbance handler, resource allocator and negotiator. Earlier view on managerial duties were described by Henry Fayol in 1916 (Fayol, 1954) to include Planning, organizing, controlling, commanding and coordinating.

2.3 Required Competencies of a Management Contractor

Competency has been described as the knowledge, skills, and behaviours required to performing well and keep up with the culture of an industry (Delo et al., 2010). Similarly, Mirabile (1997) earlier describes competency as the “knowledge, skill, ability or characteristic associated with high performance on a job, such as problems solving, analytical thinking, or leadership”. For a management contractor to perform required duties in management contracting effectively, it can be argued that there are required competencies the management contractors should possess. A number of studies have sought to identify required competencies and their relationship to positions and performance in different jobs.

Meredith and Mantel Jr (2011:142) in their book on “ Project management a managerial approach” categorizes project management required competences into six key skill areas, to include, communication, organization, team building, leadership, coping and technological skills. According to Delo et al (2010) recurring themes of competencies include behaviours such as self-control, resilience, communication, self-assurance, and those related to team leadership. Dainty et al (2005) suggest that Construction project managers have to combine technical knowledge and expertise with behaviours that engender effective multi-organisational teamwork and communication if successful outcomes are to be achieved. They further identified the competencies for project management performance to include the following: achievement orientation, initiative, information seeking, focus on client’s needs, impact and influence, directedness, teamwork and cooperation. Others are team leadership, analytical thinking, conceptual thinking, self-control and flexibility; with self-control and team leadership being the core competencies. In a report evaluating management contracting in the UK, builders management, construction, estimating, buying and planning are identified competencies made available to design teams by management contractors which brings the benefits of speed, economy and construction method (Sidwell, 1983).

Owing to the increased responsibility management contractors are expected to perform, undoubtedly the knowledge of their required competencies may provide clients with informed information for appropriately selecting a management contractor that will perform towards achieving expected project outcomes.

3 Research Methodology

The aim of the study was to contribute to the body of knowledge for a better understanding of the duties of a management contractor in a management contracting procurement system and the required competencies for a management contractor to perform these duties. This will require a comprehensive and inductive study of management contracts.

In view of this, the study adopted the descriptive survey method, involving the use of qualitative study via semi structure interview and documentary analysis of projects wherein management contracting was adopted. According to the CIDB (2014:17) report on construction industry indicators in South Africa, management contracting system was adopted for 34 projects across all employers category with the National and Provincial department being the main employer. Negotiation is ongoing to identify these projects for the purpose of case studies and to obtain relevant data from the key role players involved in such contract as part of an ongoing PhD research in management contracting. However, for this study due to time constraint, 3 recent cases of management contracts have been identified; upon which documentary analysis and semi structure interview with key role player was carried out.

4 Findings and Discussion

The data collection involved an examination of project tender documents and semi structure interview with key role player of three case studies of management contracting contracts.

From the examination of the project documents for the three case studies, the specific duties performed by the management contractor are presented in Table 1.

Table 1. Duties of Management Contractor

Duties	Description	Case study 1	Case study 2	Case study 3
Manage	Manage the procurement process, the implementation of project programmes, perform duties relating to overall management of contract, site administration and provide progress reports,	✓	✓	✓
Co-ordinate	Co-ordinate a considerable number of subcontractors, service providers and suppliers and supervises the work of the subcontractors	✓	✓	✓
Plan	Planning at a package level including development of maintenance plan and condition assessment and preparing forecast to define cost of work at intervals			✓
Direct	Direct the project team	✓	✓	✓
Design	Oversee development of design			✓
Facilitate	Early start of work to meet deadlines	✓	✓	✓
Procure Resources	Procure resources that are necessary to provide the required works and related professional design and condition assessment services			✓
Execute limited portion of the work	Execute limited portion of the work with own workforce, site establishment and de-establishment and provision of site facilities such as latrines, water and electrical services	✓	✓	✓
Contracting	Contracting, pricing and targeting strategy, and procurement procedure for the portfolio of projects administer package on behalf of the client, handover completed works and close out of projects and packages	✓	✓	✓

In addition, the findings from the semi- structure interview, from responses to the question on duties performed by the management contractor and required competencies to perform these duties are summarized as follows:

Duties

- The management contractor puts all service together like a turnkey development where everybody reports to the management contractor who integrates all everyone.

- The management contractor update scope and concept to construction drawings and the pre-construction stage
- Contribute in ironing out design issues, reviewing drawings, constructability issues and issues on how to get stuff delivered.
- Active partners as part of the development and planning of design team and up to delivery
- The management contractor manage and control subcontractors and other occupations and big size labour force during the construction process
- Carry out induction, safety and access arrangement
- Programming of works, getting people on time
- Ensuring site safety, managing the whole occupational safety, ensuring work is being secured on time in a safe and timely manner and save working environment
- Provides training, induction and ensuring everyone has tools and equipment to work with
- Motivate people: keeping people up motivated
- Managing clients in controlling changes to scope as it affects cost and deadlines

Competencies

- Sound knowledge of construction and building techniques and construction methodology such that will enable achieving same outcome but in a better way and cheaper cost. If something is not working the management contractor should be able to come up with a solution.
- Construction methodology: knowledge of what is new in the market, what is best in the market, the ability to take a drawing and say something is missing or that doesn't tie properly, there is need for more information. Ability to interpret designs, schedule and manage work flows
- Leadership qualities
- Knowledge of construction business
- Analyzing skills: be able to analyze projects and say this is the sequence of events, this is how I can afford these things, these are the different activities step and resources I will need.
- Construction management: Site administration, procuring subcontractors and then managing and coordinating their work quality and productivity. Being proactive solution driven on getting the job done as a team.
- Contract management: there will be a lot of contract relationship with suppliers, subcontractors which need to be managed.
- Conflict resolution: things are going to go wrong on site, you have to have the ability to manage them and go forward.
- Relationship formation : providing a link and relationship among the professional team
- Financial management: you need to manage cash flow so that you don't run out of cash by proper forward projecting

5 Discussion of findings

The aim of the study was to create a better understanding on the duties of a management contractor and the required competencies for a management contractor to perform these duties.

Duties refer to roles, responsibility or functions that management contractor has to perform. And competencies, according to Delo et al. (2010) has been described as the knowledge, skills, and behaviour required to perform well and keep up with the culture of an industry.

From the tender document analysis (table 2.) and summary of the semi-structure interview the duties performed by the management contractor can be seen to be multitasking covering both the preconstruction and construction stage of construction projects, as against what is obtainable in a traditional procurement system where the contractors only perform duties at the construction stage. These duties can be categorized into:

Construction management duties: here the management contractor performs management functions which Henry Fayol in 1916 (Fayol, 1954) describes to include Planning, organizing, controlling, commanding and coordinating. The management contractor is responsible for the overall management of the contract by putting and integrating all services together, he consult with and coordinates the professional team at the preconstruction stage and the work contractors at the construction stage. Management contractor carries out planning, organize, scheduling and programming of designs, work packages and site administration. Other construction management duties performed by management contractor are supervision, monitoring and quality control duties, to ensure that works are being constructed correctly. He also carries out reporting and provision of required project information and facilitates early completion of projects. Management contractors may also

Leadership duties: The management contractor plays an interpersonal role of figurehead. He directs the project team and work contractors as well as keeps people motivated in the course of executing the project. He also acts as the liaison; spoke person and resource allocator of the project.

Cost Control duties: here management contractors provides cost information to client and design team, prepares forecast to define cost of work at intervals, carry out cost estimation of work packages, manages clients and the design team in controlling changes to scope as it affects cost and formulate the most cost effective plan that will deliver the project within budget.

Buildability assessment duties: buildability assessment duties were adjudged as one of the core duties performed by the management contractor (Murdoch and Hughes, 2008; Sidwell, 1983). The management contractor becomes an active partner of the design team and uses his experience and expertise in construction to contribute in ironing out design issues, reviewing drawings and designs alternatives, construction feasibility issues, availability of labour, materials, plants and equipment, and issues on how to get stuff delivered. He updates scope and concept of the construction drawings, provides information on cost and materials, construction methodology, what is new and best in the market, and implications of various decisions in the course of the project.

Purchasing duties: here the management contractor purchases and order materials, supplies and resources that is necessary to provide the required works.

Contracting duties: the management contractor is responsible for evaluating, selecting, negotiating and going into contract relationship with a number of subcontractors, suppliers and other service providers in the client's interest. He is also responsible for the establishment and de-establishment of site at completion of project.

Conflict resolution duties: A management contractor manages disputes that may arise on site, and drafts and negotiates contracts properly to avoid ambiguities and dispute.

Relationship formation duties: Management contractors provide and facilitate links and relationship among project team as well as cooperate and seek cooperation with all persons involved in the project.

Health and Safety duties: here management contractors carry out duties ensuring site safety, manages the whole occupational safety and ensuring work is being secured on time in a safe manner and in a safe working environment. Also they have to ensure compliance to health and safety codes and regulations.

5.1 Required Competencies

According to Delo et al (2010), competency is the knowledge, skills, and behavior required to perform well and keep up with the culture of an industry. Owing to the increased responsibility of a management contractor in a management contracting procurement system as indicated in the duties of a management contractor from the foregoing, the competencies required to perform as a management contractor may be argued to be discern from that required to perform as a general contractor in traditional procurement system. The typical competency required for management contractors to perform their duties identified in the study includes the following:

1. Sound knowledge of construction techniques
2. Sound knowledge of construction methodology
3. Leadership skills including good temperament and self-control
4. Knowledge of construction business
5. Construction management skills including programming, planning, organizing, coordinating, supervising and monitoring skills
6. Analyzing skills
7. Financial management skills
8. Sound knowledge of contract management including knowledge of bid evaluation, negotiating power
9. Relationship formation skills
10. Conflict resolution skills

6 Conclusions

Management contracting procurement system is an option in construction procurement in which a management contractor is engaged at the early stage of a project, to contribute his experience and expertise in the management and delivery of the project. The system has been adjudged to have exhibited several benefits over the other procurement option particularly the traditional system. As a result, has been suggested to be most appropriate for large and complex projects, when timely completion and flexibility of construction is desired. These benefits may be attributed to the duties performed by the management contractors.

The knowledge of these duties and required competencies to perform management contracting duties by management contractors will help construction clients and the construction industry in the recruitment, selection, performance management and evaluation of management contractors. And, also add to the knowledge base for continuous professional development and training for aspiring management contractors. This study is also being used in establishing a scope for an ongoing PhD research on developing a decision support model for selecting a management contractor.

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