

Role of quantity surveyor construction essay



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Introduction

The name quantity surveyor conjures up a variety of different images in people's imaginations. For some, the term quantity surveyor is an outmoded title from the past. It certainly no longer accurately describes the duties that are performed. When the term was first applied to the profession, the work of the Q. S. was vastly different to that now being carried out and anticipated in the twenty-first century.

A Quantity Surveyor (QS) is a professional which is essentially construction accountant who manages the financial costs and contracts within construction industry. A Quantity Surveyor is involved in four main areas of work in construction industry which are building work such as residential housing and industrial developments, building engineering services such as lift services and others where prime cost sums are to be included in the bills of quantities, civil engineering such as infrastructure construction projects, and heavy and industrial engineering such as onshore and offshore oil and gas and petrol-chemicals. (Yeaw, 2008)

Quantity surveyors deal with a wide variety of people including clients, architects, design engineers, construction managers, engineers, planners, estimators, supplier, lawyers and buyers. As building work increased in volume and complexity, there are a lot of sectors recognised the advantage of employing an independent quantity surveyor to prepare an accurate bill of quantities, and measure and value any variation during the progress of work. (Seeley, 1997)

Today, quantity surveyors are also being appointed as a project manager to take control of the project from inception to completion and to coordinate the work of the design team and the main contractor and subcontractor.

(Seeley, 1997) They can find employment in various areas such as property surveys for hidden defects on behalf of potential purchasers, running estates, valuing the mineral deposits for mining companies, selling property and even Leasehold Reform Act work.

The roles of Quantity Surveyor will vary depending on his role either within the client's consultant or the contractor.

Role of Private or Public Quantity Surveyor

The Quantity Surveyor who works in private or public sector is an important member of the design team. The role of QS includes:

Preliminary Cost Advise

The QS is an expert in cost appraisal. He/She gives practical advice on the likely cost of the scheme from the inception of a new project. Besides that, he also advises on the comparative costs of alternative layouts, materials, components and methods of construction.

Cost Planning during the design stage

The QS will prepare a realistic budget and a cost plan showing the distribution of cost for each element once the employer's brief is done.

(Seeley, 1997)

Cost planning during the design stage of the project is to ensure the client obtain the best possible value of his money including added value to his

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property asset, preferably having regard to total costs using life cycle costing technique so that the costs are distributed in the most realistic way and the contract sum is kept within the client's budget. Approximate estimate of the initial costs of building are prepared using feasibility or conceptual estimating which are single price methods of estimating. (Seeley and Winfield, 1999)

When the budget and cost plan were acceptable to the client then the design was developed by the architect.

Procurement Advice

The QS in design team has a duty to advice the client on the most appropriate form of building procurement based on the type of project, quality of building, speed of construction, apportionment of risk and price certainty. (Seeley and Winfield, 1999)

There are numbers of procurement methods using in United Kingdom. For example, traditional method is to negotiate tenders with a single contractor and ' design and build' method is where the contractor undertakes the whole task of design and construction. (Seeley, 1997)

Documents Preparation (Tender and Bills of Quantities)

The QS will need to prepare tender document in the tendering stage and Bill of Quantities is a part of tender document. Measurement and quantification are required to provide a complete Bill of Quantities. (BQ) BQ translates the drawings, schedules and specification notes produced by designers into a document listing in detail all the components parts required for the project to

enable all contractors to calculate his tender prices in same quantities.

(Seeley, 1997)

Selection of Contractor

The QS provides frank, sound and practical advice on contractor selection.

QS will based on the industrial relations record, past performance in meeting standard, time target and the quality of management and then make recommendations to the employer on the make up of the selection list.

(Seeley, 1997)

Negotiation

During tendering, the private or public QS will evaluation of tenders and negotiate rates with contractors. Sometimes, QS will choose two of the best contractors and ask them price for the project again with discount rates.

Valuing work

The contractor is paid monthly in most construction contracts. QS will value the work carried out each month based on the report of Clerk of Works and contractor's QS and then making recommendations as to payment to be made to the contractor including advising on the financial effect of variation or receipt of instructions from the architect. (Seeley, 1997)

Settlement of contractual claim

QS will prepare interim certificate to contractor every month based on the negotiate accepted claims with the contractor's QS.

Financial Statement

A QS prepares financial statement to employer during the construction period and advice the employer on anticipated liability for payment, giving dates and amounts.

Preparation of Final Account

At the completion of the contract works, QS will need to prepare the final account for the whole project and agree details and totals with the contractor's Quantity Surveyor.

Role of Contractor's Quantity Surveyor

The Quantity Surveyors work in contractor's firm and is an important member of the construction team. The duties of QS will vary according to the size of the firm. For smaller firms, the roles are tending to be more very wide in scope. However, the roles are tending to be more specified for large firms. (Seeley and Winfield, 1999)It includes:

Preparation of Bills of Quantities

Commencing of a project, contractor's QS will need to prepare BQ with accurate measurement and estimating and then insert prices into the tender document which is provided by private or public QS.

There are two types of contract document which are lump sum contract and BQ contract. Lump sum contract is the contract document comprises a BQ without quantities. So, the QS will need to do his own measurement based on the drawings and then come out with accurate quantities. BQ contract

means the contract document comprise BQ with quantities. So, the QS just need to do pricing for those documents.

Cost Planning during the construction stage

Seeley (1997, pg63) wrote that “ Cost planning is a specialist technique used by the quantity surveyor.” It is used to help all the members of construction team to keep works within the budget. Once a realistic estimate is agreed and everything follow in accordance with it, effective cost planning will help to ensure over-budget will not occur in the project from the successful contractor’s tender to final project cost.

Constant monitoring of the cost planning will decrease the risk of overspending at an early stage and prompt corrective action can be taken. Cost planning improves the better value of money.

The contractor’s QS will aim to secure maximum payment for the work done at the earliest possible time to avoid any possible cash flow problems.

(Seeley, 1997) He will prepare cost plans that list down all the expenses right through to the project’s completion.

Negotiation

Contractor’s QS is responsible to control the construction cost during construction stage. To improve the better value of money and maintain the quality of the building, he will negotiate the material price, machinery cost and labour cost with the supplier and come out with a most reasonable price and quality report. Sometimes, he also needs to negotiate with the client’s QS for the variation order and payment issue.

Comparison of cost

QS will need to collect information about the cost of various operations in order to give a better value of money and provide information for the contractor to prepare future estimates. He will do the comparison of the cost of alternative methods of carrying out various operations so that the most economical procedure can be adopted.

(Seeley, 1997)

Documents Preparation (Sub-contract and meeting report)

Preparation of the BQ for the sub-contract is done by contractor's QS when some of works are substituted to another specialist. QS will prepare a lump sum contract or BQ contract base on the scope of work of the sub-contractor. In the sub-contract, QS will state the contract sum, commencing date, completion date, scope of work and etc.

Besides that, QS also need to prepare site meeting report before the site meeting. He will receive a letter which state the date of site meeting one week before the meeting. The frequency of site meeting is depended on the architect. Normally, it is twice a month. The meeting report includes the project brief, contract information, document register, quality report, work progress chart and progress photos.

Making application to the architect or engineer for variation order

The QS requires assessing the cost of alternative designs of temporary works and other operations in order to prepare cost and value reconciliations for internal purposes and to forecast trends. He also makes application to the

architect for variation orders if drawings or site instructions vary the work and the agreeing the value of variations with client's QS. (Seeley, 1997)

Interim valuation and payments

QS will prepare interim costing to client's QS so that the contractor can ascertain of his financial position and make appropriate action taken when necessary. (Seeley, 1997)

Contractor's QS is responsible for looking after the financial interest of the contractor and work in conjunction with private practice on the preparation of interim payments. (Ashworth and Hogg, 2007)

Final account preparation

QS will assembling data for the final account from the start of the contract to ensure that it will be completed in all its aspects and to give the contractor his proper entitlement under the contract. (Seeley, 1997)

Other roles of Quantity Surveyor

Ashworth and Hogg (2007, pg9) write " In response to the potential demise of bills of quantities, quantity surveyors began exploring new potential roles for their services." The evolved roles of Quantity Surveyor are:

Whole life costing

The meaning of whole life costing is defined by the Ashworth and Hogg who refer to the " Construction Best Practice Programme 1998" (2007, pg146) write that " the systematic consideration of all relevant costs and revenues associated with the acquisition and ownership of an asset". All the costs

associated with various options for a project are added together to represent a total cost. Future costs are discounted to a present day value.

The QS provides the whole life costing to the clients based on the initial cost such as design and construction costs and future cost such as rental and maintenance cost to give an emphasis on a whole or total cost approach undertaken during the acquisition of a capital cost project or asset rather than merely concentrating on the initial capital costs alone.

(Ashworth and Hogg, 2007)

Value Management

Value management is a specialist area. It is important to the success of projects in providing the foundation for improving value for money in construction. Clients are generally wanted higher quality buildings at lower prices and which were produced more quickly.

QS involves in value management will examine a strategic problem that a company may face before the decision to build a building. He also uses the value management knowledge to obtain a reduction in construction costs.

(Ashworth and Hogg, 2007)

Risk Analysis

Nowadays, most of the dedicated project manager has a quantity surveying background. Amongst all client advisors, QS is the most suited and motivated toward the management of risk.

Sometimes, risk may affect an estimate. So, the QS will need to assess the probability and extent of the effect. The QS evolved the risk analysis to control the occurrence and impact of risk factors and provides clients with better information upon which to make decision.

(Ashworth and Hogg, 2007)

Expert witness

The QS also can become an arbitrator nowadays. He often called upon to act as expert witness in respect of a wide variety of building disputes due to he has the knowledge of the building contract. As an expert witness, the QS need to produce a proof of evidence covering all his intended evidence.

(Seeley, 1997)

Conclusion

The traditional roles of Quantity Surveyor can be classified into private or public Quantity Surveyor and contractor's Quantity Surveyor. The table below shows the summary of the roles of Quantity Surveyor in different working sectors.

Private or Public Quantity Surveyor

Contractor's Quantity Surveyor

Provide preliminary cost advise

Prepare Bills of Quantities during tendering

Prepare cost planning during the design stage

Prepare cost planning during the construction stage

Advise client for different procurement method

Prepare tender document and Bills of Quantities

Prepare sub-contract and meeting report

Select the best contractor to do the work

Negotiate the pricing rate with the contractor

Negotiate the material price and construction cost with the supplier and the sub-contractor

Value the work done by contractor

Compare the cost provided by supplier and sub-contractor.

Settlement of contractual claim

Make application to the architect or engineer for variation order

Prepare financial statement

Prepare interim valuation and payment

Prepare final Account

Prepare final account

Nowadays, the introduction of computerised systems for preparing BQ makes Quantity Surveyor's practices become very nervous. The traditional

roles of Quantity Surveyor are not enough for QS to survive in construction industry because it is becoming to take over by technology. So, in these few years, QS are trying to evolve their roles in construction industry. They become project managers, value managers, expert witness to provide whole life costing, value management, risk analysis, a prove of evidence in building disputes and so on to employers.

The QS still have a lot of development spaces in construction industry. It will never be ended up and replaced by others. As QS in the future, I won't worry about the unemployment because it seems to be good in the economical crisis at 2007. I always believe that QS job is a " Quite Smart" job in the construction industry and has a good future.

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