Quantity Surveyor As The Technical Appraiser in The Sri Lankan Financial Industry

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Abstract

Traditionally, Quantity Surveying was a profession, which packaged in the parcel of construction industry. Chronologically, it has grown under the shelter of construction industry and profession became more sophisticated with the enrichments from other knowledge areas related to finance, management, law, valuation and so on. Today several Quantity Surveyors have explored opportunities out of the boundaries of construction industry, for example financial industry, insurance industry, manufacturing industry and real estate sector. Among these diversified fields financial industry is one of the popular fields that quantity surveyors move into. Quantity surveyors are more involved in project financing among other financial services. In project financing, especially mortgage backed lending; technical appraisal has a crucial importance because, entire mortgage depends on the technical appraisal. By identifying the importance of technical appraisal, this study amid at the suitability of quantity surveyor as the technical appraiser in the Sri Lankan financial industry.

The selected research methodology was a questionnaire survey. This was addressed to financiers to reveal the required competencies and their significances in carrying out a technical appraisal. The study further expanded to assess the Quantity Surveyor's "inherited" skills and competencies which are required to consider him as the "Technical Appraiser" through another questionnaire survey among working quantity surveyors and academics.

The study revealed that, some skills and competencies need to be sharpened in order to bring quantity surveyor to the slot of "Technical Appraiser". However, in overall evaluation, Quantity Surveyor is inherited with sound skills and competencies to fill the position of 'Technical Appraiser".

Keywords: Quantity Surveyor, Financial Industry, Technical Appraiser, Skills Competencies

Introduction

Although it is believed that the ancient Egyptians has used a system of Quantity Surveying (AIQS, 2006), the profession of Quantity Surveying has emerged in late 18th century with the industrial revolution, which witnessed large-scale urban development, industrial development and infrastructure development. With this, "the role of a (quantity surveyor) QS and his functions increasingly gained importance, and are indispensable in the present days context where construction projects tend to become increasingly complex" (Zainudin et al. 2006, p.43).

The origin of Quantity Surveying in Sri Lanka can be traced back to the British era. British QSs were employed during colonial period in the Public Works Department of Sri Lanka (Rameezdeen et al. 2006). During World War II, these QSs left the country. Later, Sri Lankans who had the opportunity of obtaining foreign education returned and practiced as QSs until the B.Sc. degree in Quantity Surveying started in University of Moratuwa in 1985 (Rameezdeen et al. 2006).

The Quantity Surveying profession is imperative in construction industry and the role of the QS is characterised in several ways. For example the studies of Ashworth and Hogg (2002) describe, the QS as the one who "ensures that the resources of the construction industry are utilised to the best advantages of society by providing, inter alia, the financial management for projects and cost consultancy services to the client and designer during the whole construction process".

But this role of the QS has changed over the years and the present QS practices his competencies in diversified paths within the construction industry as well as beyond the boundaries of the construction industry (Brandon.1990). Among the evolved and developing paths of the profession, finance is a lucrative industry providing a broad scope of opportunities in insurance, banking and investments. There are opportunities for QSs to persuade careers in insurance and various finance positions in banks or as corporate finance entities in Sri Lanka. (Zainudeen et al. 2006).

According to the Central Bank Annual report (2002), financial lending is vital in the economic growth of the country and, Sri Lankan financial system is structured so far as to contribute their maximum in this aspect. For example, loan facilities for development /project and housing are very much encouraged. Technical appraisal is one of the important tasks in financial lending especially with mortgage backed lending, mortgage of house or bare land with proposed house in Sri Lankan banks. In that ,the technical appraiser has to provide his recommendations to fulfil the requirements of borrower to build the house as well as to maintain "security ratio" of the Bank.

By identifying this role of technical appraisal in the financial industry, the aim of this study was to investigate and analyse the suitability of QS as the technical appraiser in the Sri Lankan financial industry. The research objectives were

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- to identify the skills and competencies required for technical appraisal in financial institutions.
- > to analyze the suitability of QSs as the technical appraiser in financial industry.
- to find out any necessary improvements in , skills and competencies that should be improved by the QS to fully establish in the financial industry, as a technical appraiser

Methodology

The research methods for this study were based on preliminary field study and a questionnaire survey. Preliminary field study has been carried out to find out the role of technical appraiser and the skills and competencies required for a technical appraiser in housing financing and project/development financing .Experts form five housing financing organisations and five project/development financing organisations were selected for the preliminary field study .

The questionnaire was based on Jonson (2000), who modified Humpries (1996). However, the format of the questionnaire was changed to suit this research. Royal Institution of Chartered Surveyors(RICS) and Australian Institute of Quantity Surveyors (AIQS) competency standards were taken as the basis for identification of skills and competencies in the questionnaire. Other important skills and competencies which are important for technical appraiser were included in the questionnaire based on the of preliminary survey. Then questionnaires were reviewed by two academics. There were two types of questionnaires, one was distributed among experts in the financial industry to find out the required level of skills and competencies by the technical appraiser and the other was distributed among academics who are involve in quantity surveying education at university level and practising QSs in the construction industry to identify the existing competency level of a QS.

The overall response to the survey was 74 responses (82% response rate), which comprised of 24 respondents from housing financing organisations, 23 from development/project financing organisations ,13 academics involve in Quantity surveying education and 14 QSs from the construction industry .This sample consisted of bank managers, QSs, valuers, engineers, lawyers and technical executives and academics.

In this research, it is needed to analyse the level of skills and competencies required by a technical appraiser and the existing level of QSs skills and competencies. Relative important index (RII) was used to identify the significance of the each factor. This is a well established method, which was used by several researchers such as Nkado (2001), Johnson (2000) and Jeyamathan and Rameezdeen (2005) in similar studies.

Literature Review

The Quantity Surveyor's Skill Base

Skill can be innate or acquired, and applied to general or specific aspects of the QS's work. Innate skill reflects the powers of the human being to think and reason; acquired skill is that which we gain or acquire by education, training and experience. Innate and acquired skills are applied within the domain of knowledge either in a general or specific manner (RICS, 1992).

Competencies of Quantity Surveyor

Competency is defined as a description of an action, behaviour or outcome which a person should be able to demonstrate, or the ability to transfer skills and knowledge to new situations within the occupational area (Holmes and Joyce, 1993 cited Nkado and Meyer, 2001). According to Hassal et al. (1996), the process of professionalisation demands that a profession should take responsibility for a prescribed body of knowledge by first, defining the substantive field of knowledge that the professional should command, and secondly, the process of applying that knowledge. They also explained competent QS "must have a range of skills, knowledge and understanding which can be applied in a range of contexts and organisations" (Hassall et al., 1996).

Research Findings

Housing Loans and Developer/Project Loans

Individual housing loans grant to full fill housing requirements of an individual such as construction of a new house ,purchase of a new or used house ,expansion of existing house or improvement of such. Developer /project loans are grants to developers who are handling property development or large scale hosing projects .There are specialized housing banks or housing finance units of commercial banks cater to the above requirement. The Bank evaluates borrower and the proposed project in three perspectives; credit appraisal for the borrower, and, legal and technical appraisals for the proposed project. As other two appraisals the technical appraisal is carried out separately and independently.

Technical Appraisal

Bank needs to ascertain the value of the property to be mortgaged or on completion forced sale value of the proposed property to be pledged. This is the fundamental requirement to secure the credit. Technical appraisal is required to ascertain the above values.Technical appraisal of housing loan has several steps. Initially, valuation need to be carried out for the

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proposed project according to the sound valuation principals, then proposed development need to be estimated. In that, technical appraiser has to go through approved building plans and specifications. In addition to above, cash in and out flows of borrower need to be analysed. Cash out flow of borrower needs to be supported with disbursement schedule of the bank loan. Technical appraiser should verify several factors such as market values, forced sale value of the property, ground conditions, access road and prevailing rules and regulations of various authorities. Recommendation of insurance value also becomes a responsibility of technical appraiser.

Analysis

The questionnaire carried 11 skills and 30 competencies which are important for technical appraisals. Those skills and competencies were identified from competency standards of RICS(1992), AIQS(1999) and preliminary field study. Respondents were asked to rank the importance of each in a scale ranging from 5 to 1. 5 denoted most essential , while 1 denoted not essential. RII technique used to summarize the data and 90% or above RII values represent most essential skills and competencies,70% - 89% RII values were considered as essential ,50%- 69% as medium essential and RII values less than 50 were disregarded.

Skills Required in Technical Appraisals in Housing Loans and Development/Project Loans

According to the analysis (see Table 1), it has emphasised most of the skills are essential in technical appraisal in housing and development/project finance since it has got RII values higher than 70%. Analysis skills were identified most essential in development/project loans and only leadership skills were identified as medium essential in housing loans.

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| Type of Loan | Housing loans | Development/project loans |
|---|--|--|
| Requirement of skills | | |
| Most essential RII ≥ 90% Essential 89% ≥ RII ≥ 70% | Quantification / Measurement | Appraisal / Evaluation Analysis |
| | Documentation Appraisal / Evaluation Interpersonal Skills Analysis Communication Computer Literacy Synthesis Management Self Development | Documentation Communication Interpersonal Skills Quantification / Measurement Computer Literacy Management Synthesis Self Development Leadership |
| Medium essential 69% <u>></u> RII <u>></u> 50% | Leadership | |

Table 1 - Requirement of skills in technical appraisal in housing and project/development loans

Competencies required in Technical Appraisals in Housing and Development/ Project Loans

Competencies are more important since it is the capability of doing some thing with a degree of confidence. According to the results(see Table 2) the priority has taken by the competency in government rules and regulations and cost estimating with a RII value exceeding 90% in housing financing. It has revealed that cost estimating, feasibility studies and cost planning as most essential competencies in development/project loans. Other than that contract documentation (bill of quantities), measurement, valuation, cost information database quality assurance, construction technology and computer applications are essential competencies in technical appraisal in both financings. Respondents had identified competency in valuation as essential other than the competencies identified in the studies of AIQS (1999).

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| | Housing loans | Development/project loans | |
|--------------------------------|--|---|--|
| Most essential (RII > 90%) | Cost Estimating | Cost Estimating | |
| | Government Regulations & Law | Feasibility Studies Cost Planning | |
| Essential (90% > RII > 70%) | Cost Planning Contract Documentation Measurement Valuation Cost Information Data Base Quality Assurance Construction Technology Computer Applications | Contract Documentation (Bill of Quantities) Government Regulations & Law Resource Analysis Quality Assurance Measurement Computer Applications Budgetary Reporting And Monitoring Procedures Valuation Cost information Database Project Risk Management Construction Technology Life Cycle Cost Analyses Project Management Project Value Management General Procurement Advice Financial Audit | |

Table 2 - Requirement of competencies in technical appraisal in housing and development/ project loans

Comparison with Existing and Required Skills and Competencies of Quantity Surveyor

The same questionnaires were distributed among the academics who involved in undergraduate teaching and professional QSs in the construction industry to assess the existing, skills and competencies of QSs. Existing skills were analysed with the use of RII technique ,the same method which was used to analyse required skills and competencies.

For this comparison it was selected only the most essential and essential skills and competencies obtained through the analysis, which are particularly required in both technical appraisals. (See figure 1 and figure 2)

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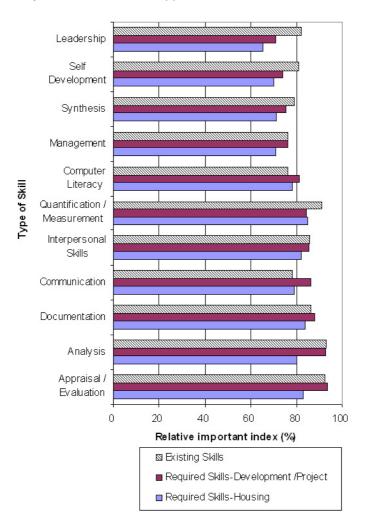


Figure 1 - Required skills Vs. existing skills

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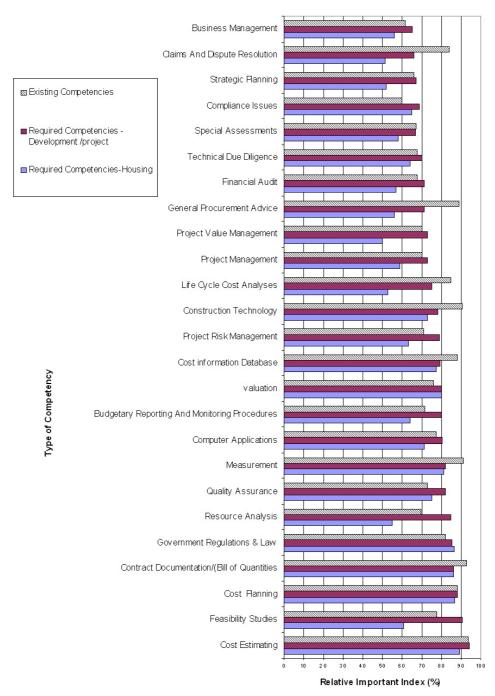


Figure 0.2 - Required competencies Vs. existing competencies

Required Vs. Existing skills and Competencies

Figure 0.1 and Figure 0.2 shows the comparison between required skills and competencies for technical appraisals and existing skills and competencies of QS respectively. According to the analysis QS has adequate capabilities in many aspects and few to be enhanced. In the same way few competencies also to be uplifted by the QS.Table 3 and table 4 show the "to be enhanced" skills and competencies.

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| Skill | Existing Skills | Required Skills | Difference |
|------------------------|-----------------|-----------------|------------|
| Skiii | (RII) | (RII) | (RII) |
| Appraisal / Evaluation | 92.23 | 93.33 | (1.10) |
| Communication | 78.00 | 86.12 | (8.12) |
| Computer Literacy | 76.12 | 81.33 | (5.21) |

Table 3 – Skills to be enhanced by the Quantity Surveyor

Table 4 – Competencies to be enhanced by the Quantity Surveyor

| Competency | Existing Competency (RII) | Required Competency (RII) | Difference (RII) |
|--|-----------------------------------|-----------------------------------|---------------------|
| Feasibility Studies | 77.46 | 90.33 | (12.87) |
| Government Regulations & Law | 82.16 | 86.53 | (4.37) |
| Resource Analysis | 69.58 | 84.67 | (15.09) |
| Quality Assurance | 72.77 | 82.00 | (9.23.23) |
| Computer Applications | 77.23 | 80.56 | (3.33) |
| Budgetary Reporting And Monitoring Procedures | 71.67 | 80.00 | (8.33) |
| Valuation | 75.88 | 80.00 | (4.12) |
| Project Risk Management | 70.77 | 78.67 | (7.90) |
| Project Management | 70.17 | 72.89 | (2.72) |
| Financial Audit | 67.69 | 71.33 | (3.64) |
| Technical Due Diligence | 67.69 | 70.00 | (2.31) |

Conclusions and Recommendations

Quantity Surveying profession has passed "taking off Quantities" era and developed with more enriched and enhanced competencies to multi disciplinary sophisticated businesses. In this context, QSs have explored opportunities beyond the boundaries of construction industry. Financial industry/ lending industry is one of the sectors identified.

Quantification/ measurement are the most essential skills for Technical appraiser in housing finance. Competencies in regulations, law and cost estimating recorded as most essential for technical appraiser in housing finance.

In project lending/ developer finance, appraisal or evaluation and analysis are the most essential skills. It has identified cost estimating, feasibility studies and cost planning are the most essential competencies in project finance.

In project loans or development loans evaluation and analysis skills and competency in feasibility studies, recourse analysis and life cycle costing are much important.

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The study identified some capacities have to be fulfilled by QS in order to match the requirements of the financial industry. Competency in feasibility studies, resource analysis, quality assurance and project risk management are the most significant areas that have to be improved by the QS. Existing skills of the QS is adequate and it is required to improve in selected fields according to the analysis, since it does not show significant differences between existing skills and required skills.

In technical appraisal process, QS can handle Valuation, estimation and technical evaluation of the project and the property. Because, QS posses most of the multi disciplinary technical requirements discussed in this text for the technical appraiser. That is due to range of skills and competencies inherited by him.

References

AIQS.(1999). *National Competency Standards for Quantity Surveyors-construction Economists*. Australia: AIQS.

Asthworth, A. & HOGG K. (2002). *Willis's Practice and Procedure for Quantity Surveying.* (11th ed). London: Blackwell Science Ltd.

Brandon, P.S.(1990). *Quantity surveying techniques-New directions*. Oxford: Blackwell science Ltd.

Central Bank of Sri Lanka. (2002). Central Bank Annual report, Colombo.

Hassal, T., Dunlop, A. & Lewis, S. (1996). Internal audit education: Exploring professional competence. *Managerial Auditing Journal*, 11(5), 28-36.

Jeyamathan, J. & Rameezdeen, R. (2006). Skills and Competencies of Quantity Surveyors: The case of Sri Lanka. In: Rameezdeen, R. & Seneviratne, I., ed. *Customizing the Quantity Surveyor to Face Challenges in Year 2020*, 26 January 2006 Colombo. University of Moratuwa: Department of Building Economics, 9-18.

Johnson, A.J.J. (2000). *Project manager which services characteristics and skills are essential and could it be a quantity Surveyor?* Unpublished dissertation (BSc). University of Moratuwa.

Nkado, R. & Meyer, T.(2001).Competencies of a professional Quantity Surveyor: A South African perspective. *Construction Management and Economics*, 19,481-491.

Nkado, R. N. Competencies for the Future Career of the Professional Quantity Surveyor. Citing internet sources. University of Port Elizabeth.

URL: http://buildnet.csir.co.zalcdcproc/docs/2nd/nkadorn.pdf

Rameezdeen, R. & Seneviratne, I., *Customizing the Quantity Surveyor to Face Challenges in Year 2020*, 26 January 2006 Colombo, University of Moratuwa: Department of Building Economics.

RICS. (1991). Quantity Surveying 2000. London: RICS.

RICS. (1992). The core skills and knowledge base of the Quantity Surveyor. London: RICS.

Zainudin, N., palliyaguru, R. & Nirooja, T.(2006). Career Paths in Quantity Surveying. In: Rameezdeen, R. & Seneviratne, I., ed. *Customizing the Quantity Surveyor to Face Challenges in Year 2020*, 26 January 2006 Colombo. University of Moratuwa: Department of Building Economics, 43-58.