

REVIEW OF QUANTITY SURVEYING DESIGNATIONS PRACTICED IN THE SRI LANKAN CONSTRUCTION INDUSTRY, THEIR QUALIFICATIONS AND RESPECTIVE JOB FUNCTIONS PERFORMED

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ABSTRACT

Quantity Surveyor (QS) identified as the cost manager in construction plays a critical role ensuring that clients gain value for the invested money. The demand for the Quantity Surveying profession has been growing day by day in Sri Lankan as well as in the International context. This has led more people enter into the QS profession from different entry paths and practicing in different designations after acquiring different qualifications. The need to establish a demarcation of designations used by the industry and the expected job functions from them by the construction industry has become critical. This research was aimed at developing a guideline of designations and their job functions for Quantity Surveying profession in the Sri Lankan construction industry. A comprehensive literature review was carried out for identifying professional background and entry paths to the Quantity Surveying profession. Research findings through interviews and questionnaires revealed that different designations practice different designations in Sri Lankan construction industry with various educational qualifications, working experiences, salary levels and facilitating different job functions. Accordingly a designation guideline with job functions was developed for the use of the Quantity Surveying profession in Sri Lanka.

Keywords: designation, functions, qualifications, quantity, surveying.

INTRODUCTION

Construction industry in Sri Lanka plays an indispensable role in the country's economy and is experiencing a considerable evolution at the moment. In the modern construction industry, Quantity Surveyor plays an emergent role due to the rapid changing and increasing nature of the industry. Therefore, demand for the Quantity Surveying profession is growing day by day in Sri Lankan as well as in International context. Hence, many tend to enter into the Quantity Surveying profession from different entry paths. After entering to the profession via any entry path, different designations are practiced by the professionals who are practicing in the Quantity Surveying profession.

While construction industry is developing day by day, profession of Quantity Surveying is getting matured. When considering Sri Lankan construction industry, Quantity Surveying professionals are entering into the profession with a considerable rate.

Different entry paths to the Quantity Surveying profession through variety of Quantity Surveying educational programmes produce large number of QS professionals to the construction industry. In Sri Lankan context, this attractive demand for the Quantity Surveying profession inspires many to enter into the profession with different qualifications. After entering into the Quantity Surveying profession with different qualifications, those job holders are practicing in different designations. This research study focuses on investigation of designations practiced by Quantity Surveying profession in Sri Lankan construction industry. Different designations practiced by the Quantity Surveying profession are in different platforms in terms of educational qualifications, working experience, salary levels. Hence, quality and performance at each designation level of the profession should be assured by a proper designation categorization.

LITERATURE REVIEW

“The construction industry is one of the largest, complex and most people-intensive sectors” (Dainty et al., 2007, p.3). According to Ofori and Toor (2009) all sectors in economy are under pressure to deliver innovative services and learn to survive and grow with increased competition in a rapid changing environment. Hence Davis et al. (2009) also identified that well qualified professionals are required to withstand in competitive and dynamic environment in construction industry. Quantity Surveyor (QS) plays a major role in construction industry who involves diverse and comprehensive duties to achieve cost-effectiveness in construction projects (Shafiei & Said, 2008). “Quantity Surveying profession is constantly confronted with challenges and opportunities in new markets” (Dada & Jagboro, 2012, p.79). Cartlidge (2006) also found that Quantity Surveying profession is going through transforming period and to be facing higher demand for its services in the construction market in many countries.

Lee et al. (2011) illustrated that the services provided by the profession cover all aspect of contractual, procurement and project cost management for all sectors of construction. Moreover, the profession of Quantity Surveying is deliberated as prominent and integral profession in the current construction industry since it delivers the advices, assistance and services associated with cost and value of construction projects and project management from inception to completion (Maidin & Sulaiman, 2011).

Ulsoy and Onen (2014) noted that professions in the modern society enable persons to attain a position and status in the society while accessing to financial benefits. Moreover, Roscoe (2002) revealed that higher education institutions, accredited education and training institutions and other professional bodies have a responsibility in terms of delivering long term study programmes which are leading to satisfy desired professional qualifications.

Lysaght and Altschuld (2000) stated a central body must agree upon required elements of the basic education and the core proficiencies should be addressed by the relevant academic programs. Universities and other educational institutes should deliver and train the professionals and deliver the formation and propagation of knowledge Mahbub (cited in Zakaria et al., 2006). The responsibility of generating well qualified and educated Qs are in the hands of universities and other educational institutions (Thayaparan et al., 2011; Perera, Pearson & Ekundayo, 2011; Maidin & Sulaiman, 2011). Christabel and Vincent (2003) discovered that there is a significant impact of professional education and experience on the attitude of QS towards immense service. Hence, it is an important piece of work to review designations practiced by QS profession in Sri Lanka in order to uphold the quality of Quantity Surveying profession.

RESEARCH METHODOLOGY

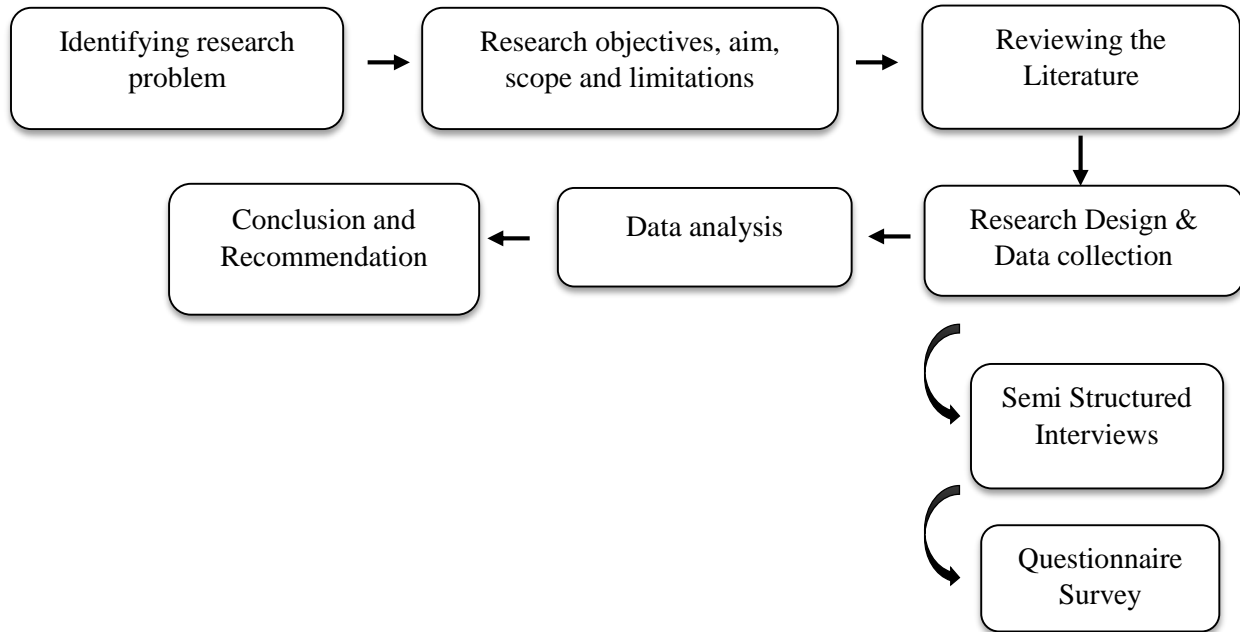


Figure 1: Research Methodology

Methodology used in this research study is shown in Figure 1. As shown the methodology adopted for the research was started with identification of the research problem and research objectives, aim, scope and limitations. A comprehensive literature survey was carried out by referring books, journals, articles and web pages. Research data collection was carried out under two stages.

- **Semi Structured Interviews**

Semi structured interview method was selected to obtain opinions of Quantity Surveying experts in the industry to gain qualitative data for this research study. Semi structured interviews were conducted with four number of Quantity Surveying experts in the construction industry in order to obtain required data.

- **Questionnaire Survey**

Questionnaire Survey of closed ended type was followed in this research for the purpose of gathering quantitative data. Questionnaire Survey was carried out to investigate currently practiced designations in Quantity Surveying profession with the qualifications, experience, gross salary level and job functions performed. Questionnaire survey was carried out among Quantity Surveying practitioners in Sri Lankan Construction industry with sample size of 96 respondents. Since Semi Structured Interviews facilitated in obtaining Qualitative data, whereas Questionnaire Survey aided in gathering Quantitative results, this research was a combination of both Qualitative and Quantitative research approaches. Hence, mixed method approach was selected for the research study. Sampling was very important as it was not possible to collect the data from entire population for both interviews and questionnaire survey. Hence, under non probability sampling method, convenience sampling technique was used for both Semi Structured Interviews and Questionnaire Survey. Collected qualitative data through Semi Structured interviews was

analyzed by means of Content analysis with the use of NVivo software programme version 10 developed by Qualitative Solutions and Research Ltd. Quantitative data gathered through Questionnaire Survey was analyzed by means of simple statistics and Relative Importance Index tool. Finally the conclusions and recommendations were drawn for the research study.

RESEARCH FINDINGS AND DISCUSSION

This research study was based on industry related practical issue so that Semi Structured Interviews conducted with industry practitioners laid the base for research outcome. It provided alterations to the research scope as well as direction to proceed in the research. Based on industry practitioners' statements, issues with currently practiced designations were identified. Further it helped to identify the importance of educational qualifications with respect to the designations. Findings through Semi Structured Interviews were analyzed under three main themes as shown below.

- Quantity Surveying profession
- Quantity Surveying Education in Sri Lanka
- Designations practiced by Quantity Surveying profession

Semi Structured Interviews provided industry experts' opinions on importance of role of Quantity Surveyor in Sri Lankan construction industry, the current practice of designations with respect to educational qualifications. Further, it also provided an overview of currently practicing designations and need of a designation guideline for Quantity Surveying professionals in Sri Lankan construction industry. Further the gathered qualitative findings and findings from the Literature survey provided the base for the questionnaire survey to explore the designation levels with educational qualifications with the job functions performed at each level.

The following designations were identified as being practiced in the Sri Lankan construction industry. The identified designations were Chief Quantity Surveyor (CQS) / Senior Quantity Surveyor (SQS), Quantity Surveyor (QS), Assistant Quantity Surveyor (AQS). The composition of the sample population in each category is illustrated as in Figure 2.

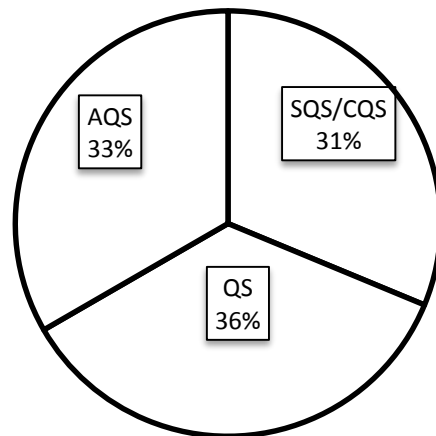


Figure 2: Composition of respondents in each designation category.

Collected data for each designation were analyzed in terms of educational qualifications, working experience, salary level and job functions performed. There are many Educational qualifications that had

been used as the entry educational qualifications to enter into Quantity Surveying profession, which were identified through literature synthesis. They are as follows:

- Bachelor of Science in Quantity Surveying
- Institute of Quantity Surveyors Sri Lanka Professional Levels
- Higher National Diploma in Quantity Surveying
- National Diploma in Quantity Surveying
- Diploma in Quantity Surveying
- National Certificate in Technology in Quantity Surveying

The working experience was considered from the very first Quantity Surveying qualification, and gross salary was used for each designation categories that had been identified. Further, job functions performed at each designation category were listed by identifying most significant functions at each level with the use of Relative Importance Index tool.

Aim of this research was to develop a designation guideline for Quantity Surveying professionals in Sri Lankan construction industry. The guide for Educational qualifications, years of working experience and expected gross salary levels for Assistant Quantity Surveyor designation is given in Table 1.0. The same information for Quantity Surveyor, Senior Quantity Surveyor/Chief Quantity Surveyor designations are given in Table 2.0. and Table 3.0.

PROPOSED DESIGNATION GUIDELINE FOR QUANTITY SURVEYORS SRI LANKA

Table 1: Assistant Quantity Surveyor Reference Guide

DESIGNATION LEVEL- ASSISTANT QUANTITY SURVEYOR (AQS)		
Educational Qualifications	Working experience	Gross Salary level
Shall have completed Certificate (QS) or;	Less than Years	Rs.15,000-30,000
Shall have completed Diploma (QS) or;	6-10 Years	Rs 30,001-45,000
Shall have completed HND (QS) or;		

Table 2: Quantity Surveyor Reference Guide

DESIGNATION LEVEL- QUANTITY SURVEYOR (QS)		
Educational Qualifications	Working experience	Gross Salary level
Shall have completed B.Sc (QS)	Less than 5 Years	Rs.45,000-75,000
Shall have completed B.Sc (QS)	More than 5 Yeas	Rs 75,001 or More
Shall have completed IQSSL Professional levels	Less than 5 Years	Rs 30,000-45,000
Shall have completed IQSSL Professional levels	6-10 Years	Rs 45,001-60,000
Shall have completed HND (QS)	More than 5 Years	Rs 45,001-60,000

Table 3: Senior Quantity Surveyor/ Chief Quantity Surveyor Reference Guide

DESIGNATION LEVEL- SENIOR QUANTITY SURVEYOR (QS) / CHIEF QS		
Educational Qualifications	Working experience	Gross Salary level

Shall have completed B.Sc (QS)	6 Years or More	Rs.75,001 Or More
Shall have completed HND (QS)	11Years or More	Rs 60,001 Or More

Further Table 4 records the level of involvement ranked based on the RII value with respect to personal functioning in the Assistant Quantity surveyor designation in Sri Lanka.

Level of Involvement	RII	Rank
Taking off Quantities	93.75%	1
Preparation of Bill of Quantities (BOQ)	92.50%	2
Estimating and Pricing	87.50%	3
Sub-Contractor and Supplier Bills Evaluation and Payments	86.88%	4
Preparation of Tender Documents	86.88%	4
Site Measurements	86.25%	6
Preparation of Contract Documents	83.75%	7
Preparation of Rates	81.88%	8
Interim Bill Processing	80.00%	9
Tender Evaluation Reports	80.00%	9
Prequalification Evaluation	76.88%	11
Variation and Extra work Processing and Approvals	76.25%	12
Cost Planning	75.00%	13
Preparation of preliminary project Estimates / Feasibility Reports	56.88%	14
Cash Flow Preparation	50.00%	15
Development Proposals	48.13%	16
Material Reconciliation	47.50%	17
Selection of domestic sub-contractors, suppliers	39.38%	18
Project planning	36.25%	19
Construction Management	25.00%	20
Construction Auditing	23.75%	21
Valuation for Insurance purposes	21.88%	22
Quality Management	21.25%	23
Risk Management	21.25%	23
Preparation of Claims	20.63%	25
Dispute Resolution	20.63%	25
Value Management	20.63%	25
Expert Witness	20.63%	25
Taxation Advising	20.63%	25
Advise on Procurement Strategies	20.00%	30

Table 4 : Assistant Quantity Surveyor, Level of Involvement in QS Job Functions

Table 5 records the level of involvement ranked based on the RII value with respect to personal functioning in the Quantity surveyor designation in Sri Lanka

Table 5.0 : Quantity Surveyor, Level of Involvement in QS Job Functions

Level of Involvement	RII	Rank
Preparation of Bill of Quantities (BOQ)	85.88%	1
Estimating and Pricing	84.12%	2
Cost Planning	84.12%	2
Variation and Extra work Processing and Approvals	84.12%	2
Preparation of Rates	83.53%	5
Interim Bill Processing	82.35%	6
Preparation of Tender Documents	81.18%	7
Development Proposals	80.59%	8
Project planning	80.59%	8
Cash Flow Preparation	80.59%	8
Preparation of Contract Documents	80.00%	11
Preparation of preliminary project Estimates / Feasibility Reports	80.00%	11
Prequalification Evaluation	77.65%	13
Tender Evaluation Reports	75.88%	14
Material Reconciliation	71.18%	15
Preparation of Claims	70.00%	16
Selection of domestic sub-contractors, suppliers	68.24%	17
Taking off Quantities	67.06%	18
Sub-Contractor and Supplier Bills Evaluation and Payments	67.06%	18
Dispute Resolution	63.53%	20
Site Measurements	60.00%	21
Advise on Procurement Strategies	58.24%	22
Taxation Advising	53.53%	23
Valuation for Insurance purposes	52.35%	24
Construction Auditing	45.88%	25
Construction Management	45.29%	26
Quality Management	43.53%	27
Risk Management	42.94%	28
Value Management	42.35%	29
Expert Witness	40.00%	30

Table 6 records the level of involvement ranked based on the RII value with respect to personal functioning in the Senior Quantity Surveyor/ Chief Quantity Surveyor designation in Sri Lanka.

Table 6: Senior Quantity Surveyor/ Chief Quantity Surveyor Level of Involvement in QS Job Functions

Level of Involvement	RII	Rank
Preparation of preliminary project Estimates / Feasibility Reports	87.33%	1
Development Proposals	85.33%	2
Advise on Procurement Strategies	83.33%	3
Cash Flow Preparation	82.00%	4
Project planning	81.33%	5
Preparation of Rates	81.33%	5
Preparation of Claims	80.67%	7
Cost Planning	80.00%	8
Taxation Advising	80.00%	8
Valuation for Insurance purposes	80.00%	8
Dispute Resolution	77.33%	11
Construction Management	74.00%	12
Prequalification Evaluation	72.67%	13
Quality Management	71.33%	14
Quality Management	70.00%	15
Risk Management	69.33%	16
Variation and Extra work Processing and Approvals	68.67%	17
Estimating and Pricing	68.67%	17
Material Reconciliation	68.00%	19
Tender Evaluation Reports	67.33%	20
Preparation of Tender Documents	66.00%	21
Selection of domestic sub-contractors, suppliers	65.33%	22
Preparation of Contract Documents	64.00%	23
Construction Auditing	61.33%	24
Interim Bill Processing	58.67%	25
Preparation of Bill of Quantities (BOQ)	57.33%	26
Sub-Contractor and Supplier Bills Evaluation and Payments	48.00%	27
Taking off Quantities	43.33%	28
Site Measurements	42.00%	29
Expert Witness	39.33%	30

By analyzing the table 4,5,6 closely one could clearly see that with the elevation in the designation held, the Quantity surveyors tend to focus and perform on more managerial QS functions. However, still the function of provision of Expert Witness services had been recorded as low involvement level among the sample population. This could be identified as a very good area for maturing Quantity Surveying professionals.

CONCLUSION

This research paper presents an investigation on designations practiced by Quantity Surveying profession in Sri Lankan construction industry. Educational qualifications, years of working experience, salary level

and job functions performed at each designation category were identified. Qualified, competent and experienced professionals are the prime requisite to survive in the competitive and changing environment of the construction industry. Hence, this research study was focused on the identification of different designations practiced in the construction industry with respect to different educational qualifications and practiced engagement in key quantity surveying job functions. According to the research analysis, it was clearly established that different educational qualifications, years of working experience and salary levels are practiced in same designation category. The designation guideline which is proposed with analyzed research findings precisely elaborates required educational qualifications, years of working experience, expected gross salary level and job functions performed at each designation category. The designation guideline developed was a summation of various designations practiced by the Quantity Surveying personnel

This proposed guideline can be recommended to be used as a tool during recruitment of Quantity Surveyors at various levels to ensure quality and performance. Output of this research can be recommended as a base for a further development of designation levels in Sri Lanka. This research study provides further direction for the establishment of a service minute for Quantity Surveying profession in Sri Lanka.

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