BRIDGING THE COMPETENCIES GAP BETWEEN QUANTITY SURVEYORS AND FACILITIES MANAGERS

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Abstract

The construction industry is facing a period of change. The roles of the professions are also changing; including the roles of quantity surveyors. There are opportunities for quantity surveyors to seize the initiative to broaden their involvement in other industries. Facilities management is considered as a bright new venture for quantity surveyors as many big and complex buildings that have been built are now requiring appropriate maintenance management. Organisations nowadays realise the impact of their facilities to achieve the overall organisational objectives. However, in order for quantity surveyors to venture into the facilities management industry, they will have to improve their competencies' sets and their knowledge bases to fulfil the facilities management competencies' requirements. This paper reports the preliminary findings on a study examining the competencies gaps of quantity surveyors in order to venture into facilities management. A semi-structured interview technique was conducted with six experienced quantity surveyors who have been actively involved with facilities management consultancies. The findings from the interviews indicated that there are several competencies gaps that need to be overcome by quantity surveyors in order to venture into facilities management, i.e. the knowledge and competence on property maintenance, support services operation and business organisation.

Keywords*: Competencies gaps, quantity surveying, facilities management.*

1.0 Introduction

The quantity surveying profession in Malaysia has progressively developed since building works increased in volume and complexity over the last century (Chong, Lee, & Lim, 2012). Quantity surveyors are responsible for the preparation of 'accurate' bills of quantities to be priced by tendering contractors; as well as measuring and valuing any variations that might occur during the progress of the works (Seeley, 1997). However, it has been acknowledged that the quantity surveyors' traditional roles have undergone significant changes over the past two decades due to factors such as changing industry demands, project procurement practices, information technology developments and increased levels of competition (Kumaraswamy & Morris, 2002; Fellows, Liu, & Fong, 2003; Wong & Fan, 2013). Therefore, in order to remain relevant, competitive and successful; quantity surveyors need to constantly scan their business landscape to discern new directions and to adapt to imminent changes in their professional practice (Frei & Mbachu, 2009; Smith, 2009). One of the significant future opportunities for quantity surveyors is to venture into facilities management (Wong & Fan, 2013; Githaiga, 2004).

Facilities management (FM) is an area that encompasses various disciplines to ensure functionality built environment by integrating people, place, process and technology (International Facility Management Association (IFMA, 2014). The development of FM in Malaysia can be

considered to be in the infant stage compared to the first world countries such as United State and United Kingdom. Previously, FM has not been noteworthy in construction professions. It was seen as the old-fashioned way of care-taking, cleaning, repairs and maintenance (Kamaruzzaman & Zawawi, 2010). However, with the increasing utility and maintenance costs, coupled with increasing legislative and regulatory requirements on energy use and carbon reduction, many organisations, which are committed to the sustainability agenda, have developed their own FM unit and sustainability policies as an integral part of their corporate social responsibility (CSR) (Walker, Pitt, & Urmila, 2007). Therefore, it is timely that the quantity surveying profession embraces to the rapidly evolving FM industry (Shah, 2007). Nevertheless, to venture into this discipline, quantity surveyors require adequate competencies to be able to carry out the roles in FM efficiently. Thus, a study was conducted to achieve the following objectives:

i. To determine the competency gaps between the quantity surveying and facilities management professions'.
ii. Based upon the findings from the above stated objective, to come up with recommendations on how to bridge the gaps between the two professions' competencies needs.

The recommendations from this study can help minimise the competencies gap for QSs as well as future QSs that would like to venture into the FM industry successfully.

2.0 Literature Review

2.1 Definition of Competencies

The process of professionalization demands that a profession should take responsibility for a prescribed body of knowledge by first defining the fundamental field of competencies that the professional should understand and secondly the process of applying that competencies (Hassall, Dunlop, & Lewis, 1996). Competency is something which a person who works in a given occupational area should be able to do (Stewart & Hamlin, 1992). It is 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 & Joyce, 1993; Meyer & Semark, 1996).

2.2 Quantity Surveyors' Competencies

In relation with the previous section, for quantity surveyors (QSs); there are certain competencies that are expected of them in order to deliver their roles efficiently. In the QS profession, the model of competencies set out by the Royal Institutions of Quantity Surveying (RICS) for assessment of professional competence is recognised globally including Malaysia. The RISC have categorised the competencies into three groups, namely; i) mandatory, ii) core, and, iii) optional competencies. The mandatory competencies are common to all construction professionals under the RICS structure; meanwhile, the core competencies are uniquely required by QSs. Furthermore, the optional competencies reflect areas of specialisation or future career diversification (RICS, 2014). The groups of competencies' categories are shown in table 1.

Table 2: Quantity Surveyors Competencies by RICS

Categories	Competencies
Mandatory	Conduct Rules, Ethics and Professional Practice, Client Care, Communication and Negotiation, Health and Safety, Accounting Principles and Procedures, Business Planning, Conflict Avoidance, Management and Dispute Resolution Procedures, Data Management, Sustainability, Team Working
Core	Commercial Management of Construction or Design Economics and Cost Planning, Contract Practice, Construction Technology and Environmental Services, Procurement and Tendering, Project Financial Control and Reporting, Quantification and Costing of Construction Works
Optional	Building Information Modelling (BIM) Management, Capital Allowances, Commercial Management of Construction or Design Economics and Cost Planning (Whichever Is Not Selected As a Core Competency), Contract Administration, Corporate Recovery and Insolvency, Due Diligence, Insurance, Programming and Planning, Project Evaluation, Risk Management, Conflict Avoidance, Management and Dispute Resolution Procedures or Sustainability.

Source: RICS, 2014

Although the traditional roles of QSs within the construction industry are still required, it is acknowledged that the QS profession is currently facing threats to its traditional roles and functions as a result of changing client needs in the construction industry (Matzdorf, Green, Megginson, Dale, & Kennie, 1997), advances in technology (Wong & Fan, 2013), diversity in procurement method (Kumaraswamy & Morris, 2002), and the particular needs of a developing economy. Brandon (1992) suggests that the professions' continuing relevance and growth could require enhancing its knowledge domain so that it can move quickly into new areas of service as opportunities arise. Competent quantity surveyors must have a range of skills, knowledge and understanding which can be applied in a range of contexts and organisations (Hassall, Dunlop, & Lewis, 1996; Babalola, 2009). At the same time, it should be prepared to move away from old methods when technology and competition make them redundant.

Githaiga (2004) highlighted new areas of diversification where quantity surveyors have opportunities such as: Development Appraisal, Pre-Contract Cost Control, Taxation Planning, Contract Administration, Disputes, Litigation and Arbitration, Technical Auditing, Valuation for Fire Insurance, Fire Loss Adjustment, Maintenance Management Schedule of Condition and Dilapidation, Project Management, Research and Development and Overseas Works. There are also recommendations that as the construction projects grow in complexity and size; it is immediately apparent that the demands of quantity surveyors have diversified from providing project into building management services; i.e. the area of facilities management (Wong, 2002).

2.3 Facilities Managers' Competencies

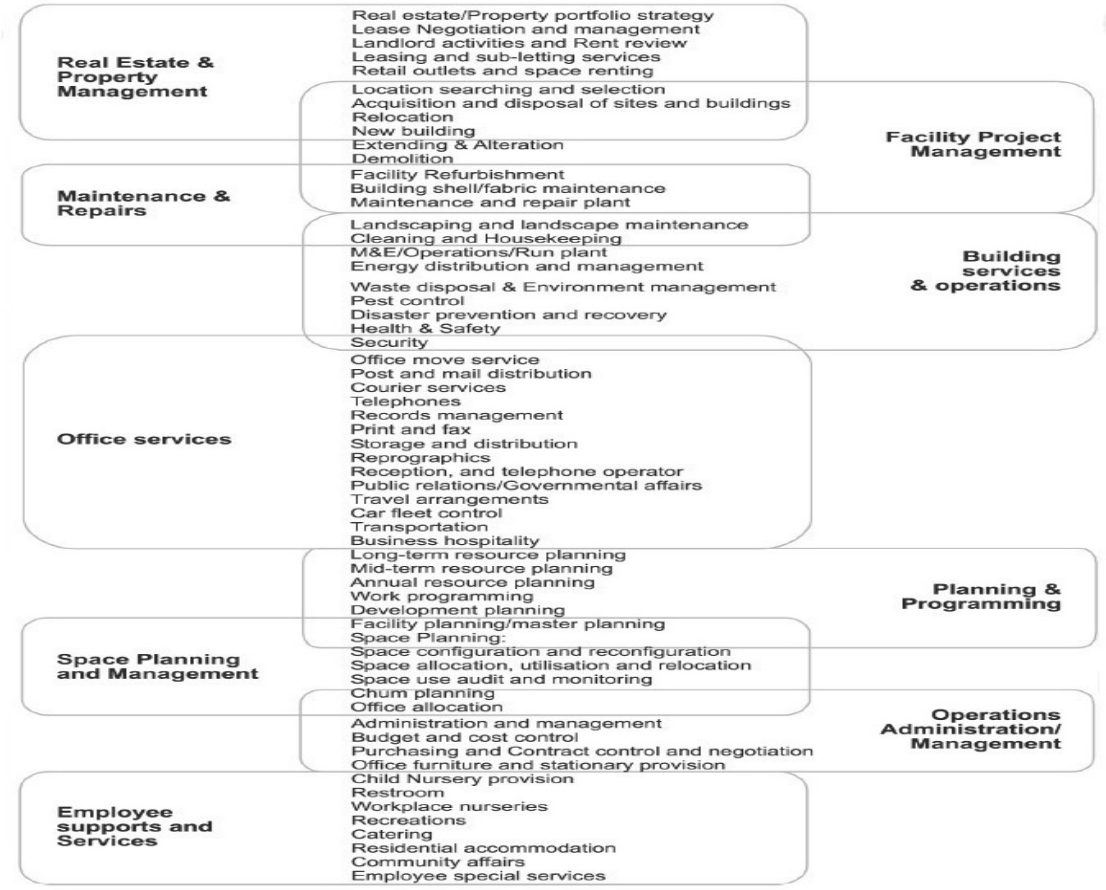
The majority of organisations operate from buildings, which represent one of their largest corporate assets and cost liabilities. These assets and liabilities demand more than merely maintaining and servicing (Chotipanich, 2004). It needs to be managed with the objectives of the organisation in mind, so that accommodation and facilities services strategies are aligned with business strategies and plans (Chotipanich, 2004). An efficient facility can create an environment that supports corporate operations, integrating the organisation's service infrastructure to deliver satisfaction to staff and customers at best value and optimising productivity to the organisation (RICS, 2012). To achieve those qualities of facilities, organisations require facilities managers.

Nowadays, facilities management encompasses more than building operations and maintenance, it also involves property management, business support, customer and employee support, or to different combination of these (Thomson, 1990). In addition, figure 1 shows an

amalgamation of all available lists of services to give a generic view of services related to facilities management.

Figure 1 shows that facilities management covers a wide range of facility services and the management of which can contribute to the relative success or the partial failure of an organisation's business (Thomson, 1990). This is because facilities, as well as facilities management function; are prioritised differently to the core businesses of different organisations (Chotipanich, 2004). Consequently, the functions, roles, scopes; and, the priorities of facilities functions need to be designed to fit with these contingent matters (Lunn & Stephenson, 2000). Therefore, to achieve the mission, vision and objectives of an organisation; the competency element needs to be diagnosed prior to the use to be suitable and able to realise the dream of the organisation (Boyatzis, 1982; Rothwell & Lindholm, 1999).

Figure 1: List of Services in Facilities Management



Source: Thomson, 199

In facilities management industry, there are three important professional bodies in the competence of the skilled, such as International Facility Management Association (IFMA), British Institute of Facilities Management (BIFM), and Facility Management Association of Australia (FMAA). The competency standards models developed by these three organisations model were perceived to be the most comprehensive ever developed to date as they consistently revised the competencies list. This situation reflects the fact that the facilities management sector is very diverse. The revisions of competencies are necessary to provide greater flexibility by catering for different organisational requirements and steering individual needs. Table 2 shows that in different market as in United States, United Kingdom and Australia, they have their own requirement for FM

competencies due to the condition variable. Awang, Mohammed, Sapri and Rahman (2013) conducted a thorough study to adapt the competencies required by the industry based on the competence by the above professional bodies.

Table 2: Competency Area by IFMA, BIFM and FMAA

IFMA	BIMF	FMAA
• Communication • Emergency Preparedness & Business Continuity • Environmental Stewardship & Sustainability • Finance and Business • Human Factors • Leadership and Strategy • Operations & Maintenance • Quality • Real Estate & Property Management • Technology	• The Business Organisation • Management Principles • Risk Management • Information and Knowledge Management • Project Management • Personal Leadership • Human Resources Management • Relationships with Suppliers and Specialists • Quality Management • Customer Service • Management of Property • Property and Building Services Maintenance • Space Management • Support Services Operations • Sustainability and Environmental Issues • Energy and Utility Management • Financial Management • Procurement, Contracts and Contract Management • Legislation, Codes, Directives and Regulatory Issues • Facilities Management	• Leadership & Innovation • Stakeholder Relationships • Business Systems & Productivity • Industry Knowledge • Risk Management • Operational Activities • Strategic Activities

Source: BIFM, 2009; IFMA, 2013; FMAA, 2012

Table 3 shows the Schedule Matrix for Facility Management Competency of Professional Bodies. The matrix in Table 3 indicates that even different countries have different variable which require adjustment to the competencies required by facilities managers, there are few competencies remain consistent through all those countries. Therefore, it is considered 'appropriate' to consider that any competencies recognised by more than two professional bodies as fundamental competencies of facilities managers (highlighted in the shade of grey colour).

Table 3: Schedule Matrix for Facility Management Competency of Professional Bodies

No	Competency Area	IFMA	BIFM	FMAA
1	**Leadership and Management**			
	Leadership And	•		
	Management			•
	Managing Change			
	Professional Practice			
	Law			
	Real Estate Law			
	Manage the Assigned Personnel to the Facility Function	•		
2	**Organization Management**			
	Understand the Organization Structure and Administration		•	
	Understand Organizational Aim and Strategy		•	
	Develop FM Strategy In Line With Organizational Strategy	•	•	•
3	**Human Resource Management**			
	Human Resource Management in Facility Management Work Process		•	•
	Effective Communication	•	•	•
	Cooperation with Suppliers and Specialists for Matters/Work Process Related To Facility Management		•	
	Workplace Management Rapport			•
4	**Premises Management**			
	Management Matters on Organizational Property	•	•	•
	Understand Building Design		•	
	Maintenance of Building Elements (Roof, Floor, Wall, Stairs, Etc.)		•	•
	Improve Facility Performance			•

	Workplace Management Relation			
5	**Service Management**			
	Manage Building Service Systems (Drainage, Piping, Sanitary, Etc.)	•	•	•
	Execute the Contract Management Works	•	•	•
	Manage Support Services (Cleaning Team, Landscaping, Etc.)	•	•	•
	Project Management (Repair/Refurbishment Etc.)	•	•	•
6	**Operation and Maintenance Management**			
	Monitor the Procurement, Installation, Operation, Maintenance and Disposition of Internal Building System	•		
	Manage the Building Structure and Internal Permanent Fittings Maintenance	•	•	
	Monitor the Procurement, Installation, Operation, Maintenance and Disposal of Furniture and Equipment.	•		
	Monitor the Procurement, Installation, Operation, Maintenance and Disposition of Exterior Building Elements	•		
	Implement Operation and Maintenance Management	•	•	
7	**Work Environment Management**			
	Environmental Issues (Such As Recycling, Energy Saving, Etc.)	•	•	•
	Space Management		•	•
	Health, Safety and Physical Safety Management in the Organization	•		
8	**Resource**			

	Management			
	Works Related to Resource Procurement		•	•
	Risk Management Involved in the Work Process Done		•	•
	Financial Management in Managing Organizational Resource	•	•	•
	Quality Management in Managing the Organization Resource	•	•	
	Information Management in Managing the Organization Resource	•	•	

Source: Awang, Mohammed, Sapri, & Rahman, 2013

2.4 Competencies Gap between Quantity Surveyors And Facilities Managers

Therefore, in order for QSs to venture into the FM industry, comparison must be made for both the QS profession and the requirements of the FM industry to identify the competencies gaps between the two professions. Hence, within the context of FM competencies' requirements, the British Institute of Facilities Management (BIFM) competencies will be used as model competencies for the FM profession in Malaysia. This model was chosen due to the fact that Malaysia is one of the Commonwealth countries, and therefore, the requirements should be of similar needs. The competencies identified within the area of FM are; The Business Organisation, Management Principles, Risk Management, Information and Knowledge Management, Project Management, Personal Leadership, Human Resources Management, Relationships with Suppliers and Specialists, Quality Management, Customer Service, Management of Property, Property and Building Services Maintenance, Space Management, Support Services Operations, Sustainability and Environmental Issues, Energy and Utility Management, Financial Management, Procurement, Contracts and Contract Management, Legislation, Codes, Directives and Regulatory Issues, Facilities Management – Development and Trends (BIFM, 2009)

Based on the above competencies, it can be generally concluded that the quantity surveying and facilities management profession share a lot of similarities in terms of competencies such as in financial, contractual, and procurement management (Kamaruzzaman & Zawawi, 2010). However, this does not necessarily means that QSs possess sufficient competencies to provide the overall facilities management roles (Brown, Hinks, & Sneddon, 2001). There are still gaps in quantity surveyors' competencies, especially within the operational context such as property and building services maintenance and support service operation (Brown, Hinks, & Sneddon, 2001). Consequently, the QSs face problems to link and embed the information from operation into the organisation strategic planning (Gray, Daish, Joiner, & Kernohan, 1992). In addition, there are also some arguments into the lacks of QSs in the business organisation competencies which cause them to optimise the facilities usage to meet the strategic objectives of an organisation (Bennett, 1991; Morris, 1994). Therefore, QSs need to take proactive measure to overcome these problems to ensure smooth accessibility into the facilities management discipline. The expected competencies that may be acquired by individual QSs over a period of time are; professional practice, education and continuous professional development (Dada & Jagboro, 2012). However, Chan, Chan, Scott & Chan (2002) suggested that those competencies are better learned at academic institutions and preferable, at tertiary institutions.

3.0 Research Methodology

This research employs a qualitative approach in order to achieve the aim of the study using interviews as the technique of data collection. The interviews conducted were more of guided conservations rather than structured questions (Yin, 2009). It is the conservation where knowledge is produced through the interaction between interviewer and interviewee. Steps involved in conducting interview in this study are as follows:

3.1 Step 1: Designing the Interview 'Blueprint'

In this study, the 'blueprint' of the interview consists of four problems: what question to study, what data are relevant to the topic, what data to collect, and how to analyse the result.

This study employs a semi-structured interview with respondents who are QSs by profession; but having gotten themselves actively involved within the area of FM for at least 5 years. In addition, through a semi-structured interview, the interviewer can probe or ask more detailed questions in order to achieve the aim of the study. It also enables the interviewer to explain or rephrase the questions if the respondents were unclear of the questions.

3.2 Step 2: Design Questions

The design of the questions in this semi-structured interview reflects the competencies requirements that are embedded within the research objectives of the study. The coherence between the research objectives and interview questions were checked to ensure its validity. To refine these questions in the semi-structured interview, a pilot study was accomplished with two senior quantity surveyors registered with Malaysia Association of Facilities Management (MAFM); in which resulted in several improvements and changes to improve participants' understanding of the questions.

3.3 Step 3: Data Collection

The population of this study consists of all the quantity surveying firms within Kuala Lumpur. A carefully drawn sample is a basis for estimating population parameters. After getting the list of quantity firms from the Board of Quantity Surveyors Malaysia, the sample of the study is identified. From a total of 101 QS firms in Kuala Lumpur, five QS firms were chosen as the main focus of this study due to their practice of facilities management consultancy. Six interviewees from the selected firms were chosen as they were actively and directly involved in the FM consultancies. The low number of respondents was due to the fact that still not many QSs have ventured into the FM discipline. In addition, FM is also considered still new in Malaysia; and the implementation is still on the lower side.

3.4 Step 4: Data Analysis and Report Writing

In this study, data analysis of the rich resource is based on examining, categorising and tabulating evidence whether the evidence supports the objectives of the study. The data collected from the interview were analysed using content analysis. The findings were then linked-back to seminal literature within similar area of work.

4.0 Study Findings

The findings from the interview found several competencies gaps between the QSs and the FM profession. Table 4 shows the competencies gaps between the two professions.

From Table 4, it can be seen that the interviews reveal that there are competencies gaps between QSs and the FM profession. Overall, six competencies' gaps have been identified, i.e. property maintenance, support services operation, business organisation, energy/utility management, customer services, and, information management. QSs need to strengthen themselves in these areas of competencies in order to bridge the gap in making them 'good' facilities managers.

Table 4: Competencies Gaps for Quantity Surveyors to Venture in Facilities Management

Competencies Gaps	**Annotation**
Property Maintenance	"…quantity surveyors still lack in building maintenance competencies…" (R1-R6) "…need to focus more on property maintenance…"(R2) "…building maintenance is the first thing to learn for those who want to venture in facilities management…"(R1,R4,R5)
Business Organisation	"…business organisation is important competencies to master…" (R1) "…every decision make must contribute to organisation objectives…" (R2,R5)
Support Services Operation	"…quantity surveyors need to familiarise with the post-building services…"(R1,R6) "…there are differences between construction and commission services…" (R4) "…quantity surveyors should improve on building services management…"(R5)
Energy and Utility Management	"…energy consumption is among the main operation cost need to be cut…" (R1,R4)
Customers Services	"…quantity surveyors should learn how to meet customers' satisfaction…" (R2,R6) "…learn to communicate and establish relationship with users…" (R6)
Information Management	"…should know to analyse feedbacks systematically…" (R1,R3)

* R = respondent

Looking at the competencies gaps, respondents were then asked on how to minimise the competencies gaps of QSs and the FM profession. Several recommendations have been highlighted and summarised in Table 5. From Table 5, it can be seen that majority of the respondents felt that tertiary level education was the best medium to minimise the competency gaps of the quantity surveyors in order to venture into facilities management.

Table 5: Recommendation to Overcome the Competencies Gaps

Recommendation	Annotation
Self-Learning (Experience)	"…practically, you will learn during your professional practice…" (R3) "…there are things you learn from your experiences…" (R6)
Tertiary Level Education	"…melentur buluh biarlah dari rebungnye…" (R3) "…university is the best place to learning something…" (R2,R5) "…at university, you will be properly teach and guide…" (R1-R6) "…better learn in university…" (R1)
Continuous Professional Development (CPD)	"…CPD is good for those cannot cope with university educational framework…" (R3)

5.0 Discussions

Based on the feedbacks from the respondents, most competencies gaps specifically relates to the commission phase where the area quantity surveyors is unfamiliar with. The findings shown some degree of similarity with the research done by Bennett (1991), Gray, Daish, Joiner and Kernohan (1992), Morris (1994) and Brown, Hinks, and Sneddon (2001) stated that property management, business organisation, support services operation and information management as competencies gaps of quantity surveyors to venture in facilities management. However, there are some additional competencies found in this research which are energy and utility management and customers services. This differentiation might due to the different experiences faces by the respondents on different projects due to the nature of the project itself. The nature of the facilities management is prioritised differently depends on the core businesses of different organisations (Chotipanich, 2004). Consequently, the function, role, scope and priority of facilities function needs to be designed to fit with these contingent matters (Lunn & Stephenson, 2000).

Property maintenance, business organisation and support services operation were identified as the fundamental competencies gaps. The respondents noted that the facilities management in Malaysia still focuses on conventional roles of maintenance and operation works; making it necessary for the quantity surveyors to master any competencies related to those area before venturing into FM. Furthermore, maintenance and operation play important roles to keep building services safe and useable besides operating in a cost-effective and efficient way thus providing best value to the organisation. However, some respondents argue that FM starts to raise the bar and joining the management group of an organisation. Therefore, it is important for the QSs to empower their business organisation competencies to enable them to coordinate and implement a facilities strategy which is consistent and appropriate to the overall organisation business strategy. The rest of the competencies gap like energy and utility management, customers' services and information management were not considered as fundamental competencies gaps due to small number of feedback from respondents; nevertheless, they are competencies' gaps that need to be looked into. These competencies can be seen as sub-competencies which complement other fundamental competencies or as optional competencies specifically for certain type of facilities. For example, a respondent stated that customers' services are important mainly for service based facilities such as apartment and shopping complex. Other respondents mentioned that even energy and utility management is important to provide a sustainable building development thus help save energy and cost in the operation of buildings, the low awareness regarding green building among client limit the necessity of this competencies in facilities management. In addition, information management is also considered as part of business organisation competencies, and should not treat separately.

The respondents have given few recommendations to minimise those competencies gaps. All the recommendation were found to conform with the research done by Chan, Chan, Scott and Chan (2002) and Dada and Jagboro (2012) which are self-learning, tertiary level education and continuous

professional development. There was no finding that contradicted between the respondents in suggesting tertiary level education is the most appropriate way to instil those competencies in the quantity surveyors. All the respondents agreed that tertiary level education such as universities and colleges provide conducive learning environments with reliable lecturers and sufficient facilities. However, the education framework for quantity surveyors courses require some alteration by introducing elective subject such as facilities management since first year to ensure complete understanding on those area. However, according to a few respondents, certain competencies cannot be master through classroom teaching system only but require practice in real professional life. Certain competences especially relate to leadership, decision making and soft skill can only matured proportional to the experiences. On the other sides, they agree that initiative done by professional bodies or organisation in organising continuous professional development programme provide good platform for practitioner to acquire new competencies. It also provides an alternative for those who cannot cope with the universities educational system in term of study framework or time flexibility.

6.0 Conclusion and Recommendation

The profession of quantity surveying has been developed during the last few years. Growing demand for construction and changes in the industry; as well as the construction process has offered both challenges and opportunities that make it necessary for quantity surveyors to redefine their role. Quantity surveying profession can promote integration of the construction supply chain especially in facilities management. The integration of quantity surveying profession into facilities management industry can be achieve with the improvement of quantity surveyors competencies in accordance with the facilities management requirements. This study found that there are gaps in competencies of the two professions, i.e. QSs and FMs that need to be addressed before QSs can become successful facilities managers. These competencies' gaps however can be minimised through education and training offered by HEIs, CPD programmes as well as exposure within the FM industry itself.

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