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The Awareness Level among Quantity Surveying Students towards The Evolution of Quantity Surveyor's Roles and Services

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Abstract

The quantity surveying profession faced many challenges, risks and threats to survive and sustain their services in construction or new sectors. Thus, this study is important in measuring the quantity surveying students' awareness towards the roles and services that have been diversified from traditional to modern. The aim of this research is to determine the level of awareness among quantity surveying students towards the evolution of roles and services of quantity surveyor. Two objectives were formulated for this research which are: (1) to identify the types of evolution of quantity surveyor roles and services and (2) to determine the level of awareness among quantity surveying students towards the evolution of roles and services of quantity surveyor. The quantitative method was used to achieve the research objectives. Online questionnaires were distributed through Google forms to 235 targeted final year students of diploma and bachelor's degree in quantity surveying programme at Universiti Teknologi MARA (UiTM), Seri Iskandar Campus. From that number, a total 96 responds (41%) were collected. The data is gathered and analyzed by using the Statistical Package Software System (SPSS) Version 28. The findings revealed most of the respondent lack of awareness regarding the evolved roles and services of quantity surveyors such as in tax advice sector and banking sector. It is hope that the findings of this research could encourage the university's academic content to be improve so that the awareness level among the quantity surveying students towards the non-traditional roles and services will be increased. In addition, it is recommended that the researchers to conduct study regarding on the students' skills and competencies in venturing into traditional and non-traditional roles and services of quantity surveyors.

Keywords: Quantity Surveyor, Quantity Surveying, Roles and Services, Evolution, Awareness

Introduction

A quantity surveyor plays a big impact to the construction industry majorly in estimating the cost of a project. Udo and Abiola (2015) found out that quantity surveying profession has increased since the fast development and modernization towns take over in current years. However, not only the profession, but the quantity surveyor responsibilities have expanding due to clients' demand and complexion of the construction. Consequently, the quantity surveying profession faced many challenges, risks and threats to survive and sustain their services in construction or even new sectors. With the performance of evolved roles and services carried out by quantity surveyors, there is a need for quantity surveying students to be aware of the roles and services that have been diversified from traditional to modern. Hence, this research aims to determine the level of awareness among quantity surveying students towards the evolution of roles and services of quantity surveyor.

Literature Review

Definition of Quantity Surveyors

The definition of quantity surveyor has been interpreted in numerous ways by the researchers and also other associated professional bodies. A quantity surveyor is defined as a construction professional who can estimate the cost and assess the building works of a construction projects (Badu and Amoah, 2004).

Types of Quantity Surveyor Evolved Roles and Services

As the world is rapidly change, the roles of expert and professional are expanding to provide diverse range of services which adaptable to current situation (Reddy, 2015). Hence, the services provided by modern quantity surveyors has diversified into various non-traditional sector such as banking, oil and gas, taxation, financial and insurance (Hanid et al., 2007; Olanrewaju, 2014; Peter, 2003).

Table 1
Types of Quantity Surveyor Evolved Roles and Services

	Types of Evolved Roles and Services	Description
1	Facilities Management	• An integration of technical, management and business knowledge that may be applied to operational, tactical, and strategic decision-making (Kamaruzzaman and Zawawi, 2010). • Need to encourage the quantity surveyor to evolve their roles and services in the fast-changing facilities management industry (Shah, 2007 cited Salleh et al., 2014).
2	Value Management	• A process for developing the functional benefits of a project explicit and valuing them according to a value system set by client (Kelly et al., 2014). • The correlation between quantity surveyor and value management is due to roles and services offer by them related to cost savings (Saifulnizam et al., 2011).

	Types of Evolved Roles and Services	Description
3	Project Management	• The planning, controlling, and coordinating of a construction project from the initial until the completion stage where related to the client's objectives in terms of time, quality and cost (Oke, 2013). • Quantity surveyor has shifted their roles as a project manager (Rolf and Chileshe, 2006).
4	Financial Management	• Financial management is required in any construction work and the services performed by the quantity surveyors and will undoubtedly continue in future (Cunningham, 2014). • Quantity surveyors guide project cost and ensure that financial provision is allocated correctly as stated in the contract (Badu and Amoah, 2004).
5	Arbitration	• Arbitration as a private, statutory-backed form of dispute settlement that is frequently employed as a substitute for litigation in construction disputes (Cartlidge, 2009). • Most of quantity surveyors in various countries differ their roles to perform in arbitration and overall project management (Wao, 2016).
6	Tax advice/ Taxation	• Taxation advice and insurance is the most typical services perform by the quantity surveyor (Peter, 2003). • Quantity surveyor is preparing calculations to support capital allowance claims, use tax planning to produce efficient decisions and assuring the value-added tax on the supply of construction materials is adequately imposed by the contractor (Hanid et al., 2007).
7	Green Building / Green Construction	• Green buildings referred as a development with the goal of reducing the negative impact on the built environment, human health, and environmental issue (Ade-Ojo and Awodele, 2020). • The current quantity surveyors have subsequently delivered services in green buildings to adapt in current new market (Tony and Luu, 2013).
8	Shipping Industry	• Quantity surveyors can offer services in procurement of shipbuilding since it has similarities to the procurement of residentials that carried out by quantity surveyors (Kamaruddeen and Wahi, 2020). • The two major quantity surveying practices that can be applied into ship industry services includes the general measurement used to find quantities and estimation used to calculate the cost (Kamaruddeen and Wahi, 2020).
9	Banking	• Quantity surveyor's responsibilities are majorly focusing on cost engineering and financial management on construction projects (Ofori and Toor, 2009).

	Types of Evolved Roles and Services	Description
		• The roles of quantity surveyors are to evaluates technical appraisal from the construction stakeholder or any individuals who intend to apply projects, houses, and material loans (Salleh et al., 2020).
10	Petrochemical / Oil and Gas	• The quantity surveyors need to learn new knowledge regarding the oil and gas construction method when venturing into this industry (Hanid et al., 2007). • The involvement of quantity surveyor into heavy and industrial engineering industries have been for many years such as oil and gas, power stations and others (Ashworth and Hogg, 2002).
11	Adjudication	• Adjudication is one of the dispute resolution methods as described in forms of contract including arbitration and litigation that use to resolve any disputes in a short time (Ashworth, 2012). • Involvement of quantity surveyors in adjudication and conflict management has changed the client's negative perception of the industry. Hence, the key component of the professions in term of appealing the parties, negotiating, adjudicating and evaluating claims (Akinsiku, 2014).
12	Civil Engineering	• Civil engineering is the art of directing enormous sources of power in nature for the use and convenience of human encompasses a wide range of different projects such as embankments, bridges, roadway and other projects related to civil works (Seeley, 1997). • Quantity surveyor services are not only in building contract, but also in civil and heavy engineering contracts followed by areas in project management (Seeley, 1997).

Table 1 shows that the quantity surveyors expanding their scope of services due to the different demands from clients in the construction industry. Nkado (2000), expressed the same and stated that the quantity surveying profession's have become more challenging and riskier compared to their traditional roles and services.

Research Methodology

A quantitative method approach is used in this research. Naoum (2007), defined quantitative research as an investigation into a social or human problem based on the testing of a theory made up of variables, measured with numbers and later analyse with statistical processes to come with findings. A survey approach is used as primary data collection by adopting questionnaires. The questionnaire act as a research instrument in this study to achieve the objectives as well as to collect data from a large number of respondents. The populations of the research are the final year students of quantity surveying programme (605 students), who are currently studying in diploma and bachelor' degree at UiTM Perak, Seri Iskandar Campus. The sample size for this research is calculated by using (Krejcie and Morgan, 1970). The sample size obtained from the calculation is 235 respondents. The collected quantitative data is analysed through SPSS and represented in tabulation format. The result obtained shown that highest frequency indicates the most chosen answer from the respondents.

Analysis and Findings

The list of the respondents was shortlisted to 235 respondents according to Krejcie and Morgan (1970) as discussed in research methodology. A total of 96 respondents (41%) were successfully returned and reliable for further analysis. Also, the students' awareness was measured by a Likert scale. To examine this data, the frequency method and mean technique were used.

Types of Evolved Roles and Services of Quantity Surveyor

This section aims to identify the various types of quantity surveyor's evolved roles and services. Table 2 show the frequency of evolved roles and services that had been discussed by a various of researchers and authors.

Table 2
Types of Evolved Roles and Services of Quantity Surveyor

	Types of Evolved Roles and Services	Frequency
1	Facilities Management	**Frequency: 6** Cartlidge (2017); Chong et al (2012); Bamigboye and Dada (2021); Hanid et al (2007); Salleh et al (2014); Peter (2003)
2	Value Management	**Frequency: 10** Ashworth et al (2002); Bamigboye and Dada (2021); Cartlidge (2017); Chong et al (2012); Hanid et al (2007); Oke and Ogunsemi (2012); Peter (2003); Saifulnizam et al (2011); Seah (2009); Sulaiman et al (2016)
3	Project Management	**Frequency: 8** Cartlidge (2017); Chidiebere et al (2017); Chong et al (2012); Hanid et al (2007); Olawumi and Ayegun (2016); Peter (2003); Rolf and Chileshe (2006); Sulaiman et al (2016)
4	Financial Management	**Frequency: 7** Badu and Amoah (2004); Chen (2013); Cunningham (2014); Hanid et al (2007); Olanrewaju (2014); Perera et al (2007); Wao and Flood (2016)
5	Arbitration	**Frequency: 7** Chong et al (2012); Bamigboye and Dada (2021); Hanid et al(2007); Peter (2003); Seeley (1997); Sulaiman et al (2016); Wao and Flood (2016)
6	Tax advice/ Taxation	**Frequency: 5** Dada (2021); Hanid et al (2007); Peter (2003); Peterson (2011); Seeley (1997)
7	Green Building / Green Construction	**Frequency: 5** Kamarazaly et al (2019); Seah (2009); Tony and Luu (2013); Wong et al (2017); Yusuf et al (2013)
8	Shipping Industry	**Frequency: 7** Chandramohan et al (2020); Chong et al (2012); Hanid et al (2007); Kamaruddeen and Wahi (2020); Olanrewaju and Anahve (2015); Peter (2003); Udo and Abiola (2015)

	Types of Evolved Roles and Services	Frequency
9	Banking	**Frequency: 4** Hanid et al (2007); Ofori and Toor (2009); Perera et al (2007); Salleh et al (2020)
10	Petrochemical / Oil and Gas	**Frequency: 8** Antwi-Afari et al (2018); Ashworth et al (2002); Chong et al (2012); Hanid et al (2007); Kehinde and Ehijel (2017); Olanrewaju et al (2012); Peter (2003); Sulaiman et al (2016)
11	Adjudication	**Frequency: 7** Akinsiku (2014); Cartlidge (2009); Chandramohan et al (2020); Chong et al (2012); Hanid et al (2007); Kamarazaly et al (2019); Peter (2003); Sulaiman et al (2016)
12	Civil Engineering	**Frequency: 7** Ashworth et al (2002); Nnadi et al (2016); Olanrewaju et al (2012); Olawumi and Ayegun (2016); Peter (2003); Seeley (1997); Sulaiman et al (2016)

Table 2 indicates that the most frequent evolved roles and services that had been discussed by a various of researchers and authors is value management (*f* =10), following by project management and petrochemical / oil and gas (*f* =8); financial management, arbitration, and shipping industry, adjudication and civil engineering (*f* =7); facilities management (*f* =6); tax advice / taxation and green building / green construction (*f* =5); and banking (*f* =4). While the data in the literature review recorded shows that the most frequent discussion on the types of evolved roles and services by quantity surveyor is value management, the result from the respondents for this research (refer Table 3) shows that project management and financial management are the most identified types of the evolution of quantity surveyor roles and services. From this result, it could be interpreted that most of the respondents are more knowledgeable and understand in identifying the project management and financial management as one of the quantity surveyor's evolved roles and services since the university has successfully providing academic content and skills which are aligned to the current requirement for quantity surveyors.

The Awareness Level Among Quantity Surveying Students Toward the Evolved Roles and Services of Quantity Surveyor

The result in this section aim to determine the level of awareness among quantity surveying students regarding the types of the evolved roles and services of quantity surveyor.

Table 3
The Awareness Level Among Quantity Surveying Students Towards the Evolved Roles and Services of Quantity Surveyors

Variable	Mean Statistic	Rank
Financial Management	4.15	1
Project Management	4.15	1
Green Construction	4.12	2
Arbitration	4.00	3
Facilities Management	3.95	4
Adjudication	3.94	5
Civil Engineering Services	3.87	6
Value Management	3.71	7
Petrochemical/Oil and gas	3.59	8
Marine works/Shipping	3.33	9
Banking	3.26	10
Tax Advice	3.21	11

Based on Table 3, it indicates that financial management and project management has the highest rank (1st), followed by green construction (2nd), arbitration (3rd), facilities management (4th), adjudication (5th), civil engineering services (6th), value management (7th), petrochemical/oil and gas (8th), marine works/ shipping (9th), banking (10th), tax advice (11th). The data recorded shows that the respondents' awareness of quantity surveyors' evolved roles and services are most common in project management and financial management, with the same mean statistic at 4.15. From the analysed data, it aligned with statement from many researchers that quantity surveyors have broaden their roles and services into project management (Chidiebere et al., 2017; Zakaria et al., 2007; Olawumi and Ayegun, 2016; Peter, 2003; Sulaiman et al., 2016). Meanwhile, Chen (2013) stated that a quantity surveyor is required to serve as a technical advisor to ensure that the contract and financial management of the project meet the client's need. Hence, this situation has broadened the quantity surveyor's profession into financial industry.

Conclusion

Based on the findings obtained from the questionnaire, most of the students agreed that they are lack on the awareness towards the evolved roles and services of quantity surveyors especially in tax advice sector and banking sector. However, most of the respondents agreed that they are aware of the quantity surveyors' services and roles in the financial management and project management sector. It is hope that that the findings of this research may benefit the university make an improvement by providing academic content and skills which are aligned to the current skills needed for quantity surveyors. In future, it is recommended that the researchers to conduct study regarding on the students' skills and competencies in venturing into traditional and non-traditional roles and services of quantity surveyors. The development of the academic content in the university should help students to improve their knowledge and awareness towards the quantity surveyor evolved roles and services to suit the current demand in the industry.

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