

# Quality Management In Real Estate Industries

Ying Li Yap, Mohd Shahril Abdul Rahman

**Abstract:** The aim of this paper is to explain the application of the quality management system to different real estate industries. Five Real Estate industries Facilities Management (FM), Property Management (PM), Property Development (PD), Estate Agency (EA) and Property Valuation (PV) have been taken into account. It provides a conceptual framework for the quality management system in the real estate sector. The literature review was used to describe the role of the quality management system in the field of real estate. Most of the previous studies focused on property development, few quality management studies in property management and facility management. In general, the quality management system definitely improves the performance of the real estate industry. More research that focuses on property valuation, the estate agency is needed because there is a lack of research to investigate the implementation of quality management. Real estate players should be made more aware of the practice of quality management systems.

**Index Terms:** Total quality management (TQM), Real Estate (RE), Facilities Management (FM), Property Management (PM), Property development (PD), Estate Agency (EA) and Property Valuation (PV),

## 1 INTRODUCTION

ISO 8402 defines the QMS as the organizational structure, processes, procedures and resources needed for the implementation of quality management. QMS is a permanent part of the process that directly involves an organization that conducts business. It consists of the structure, defined scope, responsibilities, the necessary content (defined processes and documentation) and the resources required to carry out the elements of quality management activities. It is not considered to be QMS if an organization has only applied a few quality management practices in its operation. Time to time, QMS needs to be improved in order to improve organizational efficiency and efficiency (Vivek, 2005). Quality management involves all the activities needed to plan the quality of the organization in order to achieve the desired levels. This includes quality planning, quality control, quality assurance and quality improvement. (The Vivek, 2005). The aim of this study is therefore to identify the application of quality management in the real estate industry through previous studies. The remaining sections are Methods (Section 2), Findings and Discussion (Sections 3-6) and Conclusions and Recommendations (Section 7).

## 2 METHODS

Literature review (literature survey, content analyses, thematic coding, and inductive reasoning) (Ayob, 2005; Bluhm et al. , 2011; Denzin & Lincoln, 2000) was used in identifying the role(s) of quality management in real estate industries. This was done through Google scholar, Scopus, Science direct website; as the search engines. Grouped to 5 subsections (Fig. 1), they are real estate industries of which quality management system has contributed to their performance: i) facilities management (FM), ii) property management (PM), iii) property development (PD), iv) estate agency (EA) and v) property valuation (PV).

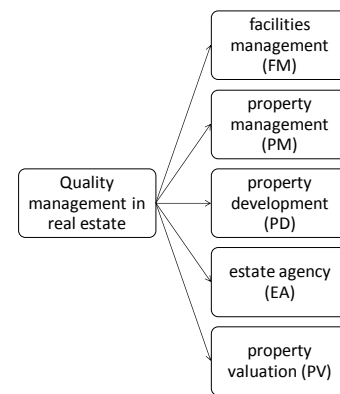


FIG. 1: QUALITY MANAGEMENT IN REAL ESTATE

## 3 FACILITIES MANAGEMENT (FM)

According to Isa and Usmen (2015) on the General Improvement Review Form, lean six sigma and the DMAIC Framework are performing well for process analysis and facility management services. Pheng 1996, TQM achieves real cost savings from errors, leads to greater customer satisfaction, improves employee job satisfaction, improves communication, provides a tool for continuous improvement and encourages the participation of all parties. TQM is difficult to apply at this stage, as it will only apply in the future when most organizations have cultivated a quality culture. All articles promote the benefits and principles of the implementation of the TQM. Research seems to be interested in the factor of people's involvement. As Pheng (1996) pointed out, TQM is difficult to apply to his research for decades, but other current studies show that TQM has taken a serious lead in the management of facilities at a recent stage. Pun and Nurse (2010) found that total quality management (TQM) should be applied to T&T in order to improve the efficiency of facility management. With the application of the quality management principles set out in ISO 2010, the possibility of refining the existing FM policy through the use of customer-focused organisation, leadership can be made possible. In addition, prevention-oriented maintenance of facilities could be adopted by the continuous improvement and involvement of people. In addition, a process approach and a system approach to management could initiate a performance measurement process. In addition, people's involvement, decision-making and mutually beneficial supplier relationships could build up

- Real Estate Department, Faculty of Built Environment and Surveying, Universiti Teknologi Malaysia (UTM), Johor Bahru, Johor, Malaysia (Emails - <sup>2</sup>Co-responding author: mshahril.ar@utm.my )

inventory maintenance and lessons learned from the files. Leadership, continuous improvement and people's involvement could promote change in culture. Cheng and Chen (2012) studied the ISO 9001:2008 hospital service blueprint. Not only do they apply technologically to medical care services, they also consider the involvement of human resources in the system. They found that the ISO 9001:2008 hybrid and the blueprint method could help improve the allocation of hospital resources and increase process efficiency.

#### 4 PROPERTY MANAGEMENT (PM)

Chin and Poh (1999) studied the property management industry attitudes towards quality in Singapore. They found that property management firms in Singapore are seeking ISO certification to enhance their competitive capabilities. Singapore property management companies are gradually increasing their awareness of quality. According to Yip (2000) in the Hong Kong case study, which argues that management commitment and employee empowerment are vital factors that contribute to quality management. Productivity and performance in property management will increase with the involvement of employees in problem-solving, decision-making and business operations. However, this management style was not perceived as a viable style of management in Hong Kong. The time needed for Hong Kong to take these two factors into account in the management of its property. Hui and Yu (2014) investigated the impact of ISO9001, ISO 14001 and Hong Kong Management Association Quality Award (HKMAQA) certification on Hong Kong property prices. The result shows that quality certification has increased the price of the property. However, between ISO and HKMAQA certification, HKMAQA adds an extra 15.37 per cent to the housing price compared to ISO 9001 in 8.87 percent. ISO 14001 certification property represents the smallest price increase of 3.65 percent compared to ISO 9001 and HKMAQA. It is a good phenomenon of the role of the quality management system to increase awareness in Singapore, as property management companies are making efforts to obtain quality certification awards. In Hong Kong, the previous study in 2000 argued that management commitment and staff empowerment are important factors in encouraging quality management in the performance and efficiency of property management. In the same country, different studies by Hui et al. (2014) show that Hong Kong's property price increases with quality certification as the highest percentage of increase led by HKMAQA certification.

#### 5 PROPERTY DEVELOPMENT (PD)

Al Maian et al. (2016) found that the supplier's work observation, inspection effort tracking and supplier performance ratings were agreed as the most important supplier quality management practices of interest. The Supplier Performance Rating provides an evaluation of their previous performance, observation of the work of the Supplier may involve the execution and performance, the development of inspection and testing to determine the criteria required to achieve the quality level. Willar et al. (2015) studied the implementation of the Quality Management System (QMS) for Grade 7(G-7) Indonesian construction companies. They found that the QMS currently applies to large-scale construction companies in Indonesia (Grade 7). Overall, the result shows the motivation of G-7 contractors to work towards ISO 9001

certified and the positive intention of Indonesian G-7 contractors to improve the quality of their services. On the other hand, they found that the management attitude and purpose were barriers to the implementation of QMS. Finally, ISO9001 needs to apply more critically to G-7 contractors in order to improve the efficiency of the current QMS. The result also suggested that G-7 contractors have not yet achieved a satisfactory level of performance in order to be truly competitive in global markets outside Indonesia. Rashed & Othman (2015) studied the quality management of construction projects in West Bank, Palestine. The majority or more than half of respondents in their firms have quality system, quality department and ISO certification. 28.7 per cent of respondents rate their customers at low level of satisfaction, which shows that a low level of awareness of the relationship between caring customers and a failure to do so could lead to the success of TQM. 42.6 percent of samples rank quality as the most important factor in the work that affects the construction project, and 41.7 percent believe that TQM provides organizational advantages. Ullah et al. (2017) studied the implementation of six sigma (SS) in Pakistan. They found that Pakistan's construction industry still operates in a traditional way rather than by applying SS. However, they also found that the chances of success of the project will be improved with the implementation of the SS. The issue of construction firms declining to meet the quality timetable targets, particularly in developing countries. Currently, in general, only 7% of government, 2% of semi-government and 20% of private construction organizations use SS. Babatunde & Pheng (2015) found that foreign firms in Nigeria must give credence to cultural differences that can have an impact on quality performance. On the other hand, it means that the adoption of local culture in a country will definitely have an impact on the quality of construction, as it is intended to be a success in quality management for foreign firms, which need to implement local culture in their management process. Sarathy (2013) studied the factors that have had an impact on TQM practice in the real estate construction industry in India. The result shows that employee engagement, top management commitment and employee customer focus play a very important role in quality management. Among these three factors, employee involvement considered to be the most important factor in the practice of TQM in India, suggested that all employees, including CEO, owner, president and other leaders, should encourage employees to participate actively and participate in the TQM process and, in particular, to play an internal audit role. Jaeger and Adair (2016) have studied the greatest benefits and barriers of TQM in Kuwaiti industrial organizations certified against ISO 9001:2000 and following a quality management approach. Project managers believe that quality of products and services, while quality management representatives believe that productivity is the most important benefit of TQM to the construction industry. Both groups agree that lack of staff involvement and resources are the greatest obstacles to the practice of TQM. Overall, previous studies on the practice of TQM in the construction sector are mainly concerned with the after-practice impact, benefits and barriers to implementation. The undeniable practice of TQM has brought benefits to the construction industry, but barriers such as lack of involvement of employees, lack of resources and lack of awareness. From the above studies, the research trend shows the researchers' efforts to examine a pattern that could have a positive impact

on the implementation of TQM. They studied the factors to be considered for raising awareness among the participating industries, studied the benefits of encouraging people to apply TQM, and studied barriers that would remind industry participants to encourage them to take preventive action. Generally, the implementation of TQM in the development of property attracts relatively higher attention when compared to other real estate industries, as they own the most recent research.

## 6 ESTATE AGENCY (EA)

You et al. (2012) investigated the factors related to the quality of services of the agent. First, they identified the Agency's problem and transaction costs that would affect the quality of the Agency's service. They measured variables for agency issues, including information asymmetry, opportunism, goal incompatibility and risk perception differences. However, transaction cost variables are integrated into the cost of collecting information, monitoring costs, adjustment costs, constraint costs and implementation costs. The problems of the Agency and the cost of transactions will directly impact the services of the Agency. As a responsible agent willing to make an effort to search and understand the products, the better the quality of the service, the higher the transaction, the better the services.

## 7 PROPERTY VALUATION (PV)

There is a lack of study on the implementation of a quality management system for property valuation. The general reference to the use of quality management in real estate was made by Sarathy (2013). However, property valuation players are strictly bound by local regulatory frameworks and methods for estimating the value of property that are internationally recognized. These methods and frameworks are international and/or international.

## 7 CONCLUSION AND RECOMMENDATIONS

In conclusion, the practice of TQM is absolutely beneficial to the real estate industry. However, the majority of studies are lean towards the area of property development. It shows the awareness of real estate participants in the development of property. Property management and facility management also carry out research, but the volume of research is also lower as a result of the development of property. It is a good phenomenon as a growing trend in the practice of TQM property development and facility management. Estate agency sector and property valuation sector may not be considered to be aware of the practice of practicing TQM in their practice due to lack of research and awareness-raising studies in these two sectors. Moreover, literature from the property development, property management and facility management sectors have fully agreed on the benefits provided by TQM. From this evidence, we can take the assumption that practicing TQM will have a positive impact on the quality of estate agency and property valuation. The recommendation for further research could link quality management with property valuation and estate agency to encourage and raise awareness among participants in the practice of quality management in the practice of property valuation and estate agency. Subsequently, research on the implementation of quality management in these areas could be carried out as an analysis and documentation to encourage participants to continue to improve in these sectors. This concludes that the

quality management system is a useful tool for continuous improvement of performance, as it should not be absent from the real estate industry.

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