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PRELIMINARY STUDY ON MANAGING FACILITY MANAGER COMPETENCIES FOR HIGH RISE BUILDING IN MALAYSIA

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ABSTRACT

Facilities Management is devoted to the coordination of space, infrastructure, people and organization. This paper aims to identify the challenges faced by the facility manager's in high rise building services in Malaysia. Facility Manager is often seen as a leader who seems not able to deliver full scale facilities management role, lacking in knowledge and skill (issue of competences). A preliminary study was conducted to 20 facility managers to gain initial overview of their working experience in the high rise building. It was found that the challenges were operational cost, quality of services, risk management, organizational needs, manpower expertise and business growth. In terms of problem resolutions, the prelim interviews highlighted inadequacy in defining acceptable service level, process review and measurement, choice of technological support, budget utilization and allocation as well as overall organizational target.

Keywords: facilities manager, competency, efficient, building services.

INTRODUCTION

A facility is physical structure or installation, serving one or more main purposes [1]. A building is considered as facility, within which there are many other service facilities and installations that support the building operations for end-users. Amongst the high rise are the residential, commercial as well as administrative buildings. The choice of constructing high rise could be attributed to rapid growth of population, expensive land price, restriction of expansion and high cost of setting up infrastructure. The high rise administrative buildings in particular already include challenges coming from those of low-rise, residential and commercial domains, in view of its largest job features in the category. It was quoted in [2] that high rise building appeared in 1880's, the first reaching a height of 309 feet, the New York World Building. The service life of a facility does not only depend on the structure itself, but also on the level of maintenance. Appropriate maintenance includes timely identification and removal of defects at an early stage. In this way the facility is put at better use and maintenance is more economical [3]. Facilities represent a substantial percentage of most organizations' assets and their operating costs. Maintenance, testing and inspection schedules are required to ensure that a facility is operating safely and efficiently, to maximize the life of equipment and reducing risk of failure.

Everything inside a building that makes it safe and comfortable is categorized as 'building services'. The range of engineering systems such as security, building automation, audiovisual, data communication, air-conditioning, ventilation, an other intermediaries supporting the building; are collectively referred to as building services, which are facilities in buildings [4]. Each of the facilities requires proper design, installation and maintenance to upkeep its intended use and benefits. Competitive building services simply means performing or functioning effectively with the least of time and effort by synchronizing the processes that satisfy intended function.

Facilities Management (FM) is an integrated multidisciplinary field. FM has become highly competitive, subject to innovation and development, under pressure to reduce costs and to add value to the core business. The main reason for FM existence as an entity in its host organization is to support the primary activities operating more effectively [5]. When a process makes its deliverable, it is said to be effective but not necessarily efficient. When a process delivery is made within the conditions associated with it, then the process is said to be efficient. In other words, the process has delivered its effective performance. A major priority for reform of FM, in a time of change, is to put user's interest first. In order to enhance the maturity of FM discipline, more empirical studies involving rigorous hypothesis testing and robust data analysis are needed to look at comparison between expected and perceived levels of services [6]. But nowadays, FM has increased beyond early concepts and covers a larger scope of Management: which include real estate, financial, change interfacing, human resource, health, safety, contract, engineering and building services [7]. FM providers or Facilities Manager / FMgr that manage building facilities are aware of service level quality to achieve company's corporate success [8]. The market trends in FM services fall into four groupings: growth of FM service companies, service provider ability, geographical spread of FMgr and cooperation with other service market players [9].

When a building is completed, then only FMgr takes over the functional requirement of the built environment for end-users. It is later found the building does not perform its intended function. Many modifications are required to make correction, involving substantial cost, time and inconvenience [10] that brings back its productive and efficient function. However, few efforts in the construction industry have involved facility FM into the design phase while steps are in the direction for FM information to be captured using the soft tool of Building Information Modeling / BIM [11]. The issue of

inadequate design also gives rise to various refurbishment work, either it was not there from the beginning or a new process requirement initiated such work.

The old-fashioned perspective of facilities management consisted of caretaking, cleaning, repairs and maintenance. It is within this mindset of the industry, that, FM concept is still not widely manifest itself in Malaysia. This is an image problem that impose psychological barrier to changes in Malaysia. For FM, it is regarded as non-core group, being supporting division to core groups such as finance, human resource, production, procurement and marketing. Its perceived role is not part of company's strategy, with plans made and actions taken in an effort to help the organization fulfill its intended purpose [12], but rather, 'a lackadaisical profession 'often seen as 'finding piecemeal solution' with poor decision making. The speed and accuracy of decision making within a dynamic FM environment can make a difference between success and catastrophic. As decision making necessarily involve information access, the use of information technology, as in mobile device for example, becomes a paramount option to build an intelligent environment where users access job-related information [13]. Innovation is part of continuous process of bringing in new ideas into practical use and in adding value to organization [14].

As commercial and administrative buildings are becoming more technological savvy and environmental friendly i.e. high performance buildings, the role of FMgr is more demanding in ensuring service performance. This type of building is now common sight, that integrates and optimizes on a lifecycle basis all major high performances attributes, including energy/water conservatism, environment, safety, security, durability, accessibility, cost-benefits, productivity, functionality and operational considerations. While hard FM are activities directly related to the built environment, the soft FM refers to indirect services such as security, waste disposal, hygiene, portage, cleaning and housekeeping.

FMgr represents a profession either as a person or a company portfolio. Whilst Malaysia has successful examples of FM development, the overall mixed signals remain since it started this concept in mid 1990's [15]. At public government level, the needs for change becoming more obvious as the government represents a large group of stakeholders, in an attempt to project a positive image to the population [16]. In comparison, developed countries in Europe and United States, partly Asian as in Japan, Hong Kong and Singapore already instituted FM concept much earlier. Factors such as technology, customer satisfaction, response time, political as well as commercial requirements, have initiated the fast phase. Traditional job implementation via internal staff and resources is also partially taken over by outsourcing due to changes in competitive marketplace. Companies are taking closer look at their core competencies and meaningful alliance with their suppliers to help reduce cost and improve services [17]. Even though FM is considered a requirement, existing traditional management approaches are still in practice such as Building Management, Complex Services, Maintenance Management, Operation Management and Asset Management. In USA the discipline of FM was introduced in 1975 and grew through the 1980's, eventually spreading to Europe and worldwide in the 1990's [14], and recognized as the fastest growing profession in UK [18]. The role of FMgr continues to be significant. In addressing the role playing, it is imperative for FMgr to adopt a strategy that creates impact to the organization. Technically, in order to perform, FMgr should have received recognition following an assessment on competency in the field through work experience, education and the ability to pass a comprehensive exam that make up the facilities management body of knowledge. The IFMA, International Facility Management Association founded 1980 USA, is the world's most widely recognized international association for facilities management professionals. It defines FM as 'the practice or coordinating physical workplace with people and work of the organization, integrate the principles of business administration, architecture, and behavioral of engineering sciences' [7]. In other words, if there is no building or installation which is recognized as 'workplace', then there is no requirement for FM.

It is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology. FM must focus on how the strategy and mechanisms for support services can assist the business to optimize its performance. For example, the use of internet technology that creates visibility, making less opaque and more transparent large-scale information system. It allows the physical value-chain to be coordinated: re-sourcing, scheduling, quality control and so forth. In many instances, facilities departments have rarely integrated themselves into business thinking. Somehow, personnel or professionals that run FM are not sufficiently equipped with competences in handling of issues. The IFMA 2013 outlined 11 core competencies namely: communication, emergency, environmental, finance, human factors, leadership, operations and maintenance, project management, quality, real estate and technology. Along the same tone, [19], said competency is made up of three elements: knowledge, experience and attitude.

PROBLEM STATEMENT

The challenges in managing high rise building are growing fast. Inside this building is a set of supporting facilities that consist of electrical distribution panels, centralized air-conditioning, cold water, fire alarm, cold water pump system and some other engineering facilities that is needed to keep the end-user comfortable within a productive environment. [11] quoted statistics from US Green Building Council indicating in the US; 72% of electricity consumption, 39% of energy use and 38% of carbon dioxide are from buildings. Energy conservatism plays a major role in building cost control in terms of its supply, availability and pattern (Low *et al*, 2010). With careful design, building can contribute to substantial reduction in energy demand (Chow and Levermore, 2010),

thus lowering cost of operation. The operational cost of a building is about 60 to 85 percent of its total lifecycle cost (LCC). LCC is total cost throughout the asset's life including inception, realization, acquisition, and maintenance i.e. cost of owning / using the asset [20]. Its increases may be caused by internal factors (wear and tear) as well as factors external to building boundary such as technological development, new building laws, social and urban issues, safety regulation, energy consumption or functional evolution [21]. Whether an organization is getting its services in-house or outsource, the challenges for FM teams is to find new ways of leading and communicating with clients, customers and staff.

The role of building caretaker is becoming more complex in meeting end user expectations. It is currently foreseen that a Facilities Manager / FMgr should take over this role to maximize the coordination of space, people, process and productivity within the built environment. FMgr is relatively new profession that aims to provide high quality and cost effective service to in-house customers in support of corporate business plan [22].

[8] said that general awareness and reputation of FMgr are still unknown. It is being recognized that FMgr competence should be given priority on top of other requirements for effective performance on FM services [19]. They must be competent to deal with complex problems, assume high level of responsibilities and be able to deal at all levels of an organization. The BIFM British Institute of Facilities Managers, 2009 outlined the competences consist of twenty broad categories of know-how that reflects a very diverse role of FMgr. It ranges from managerial, commercial to technical focus. In order to make continuous improvement of acquiring competences, FMgr should move forward into key activities of performance management: planning, coaching and review of its competitive strength [23].

It is often than not, FMgr missed out inclusion of some connecting process to make it a loop for a complete execution. When this happens, disputes arise with service provider or customer as to what already agreed, that lead to tradeoff negotiation for compensation. One most crucial element of successful process implementation is to have an ability to control the process [24]. Process documentation is common practice with companies practicing ISO standard. Adopting this standard or similar, a procurement system will produce types of procurement contract suitable for an organizational service requirement. It is in this contract that, operating cost and necessities are properly specified and quantified. In Malaysia, the government started the initiative of procurement simplification via e-procurement channel [25]. The electronic online procurement allows savings in administrative time, paperless cost and less mistakes. [26] quoted service-led contracts are complex by nature, involving many stakeholders, requiring many different disciplines for integrated problem solving. FMgr works in challenging environment which they have to keep up with large information from various domains [13]. Therefore, it is in the contract that actually defines deliverables for FMgr. For example, in a cost saving operation, FMgr may adopt performance based building approach including partnering with support groups [27], whereby a written agreement is made. Partnering or joint co-operation is one option in risk management and resolution. Contract design depends on contracting parties, scope of work and type of relationships. Within FMgr contract, there are numerous documentation that specified responsibilities, key performance indicators, compensation principles and management routine [24]. A clear procurement contract does promote collaborative and productive contracting culture in FM. A contract may consist of a combination of input (traditional process definitions) and output specifications (performance base). Even when an organization choose to implement its own FM (the FMOs), there has to be a way of benchmarking in an effort of pursuing and improving their performance [28]. Actual benchmarking should not only compare figures but analyze the causes and conditions for the expected deviations between specific variables for each facility [29]. Major components of service fall into three broad categories: architectural - layout and design, building services - engineering, and support services - soft FM [30].

It is not obvious as to what are the areas really contributed to performance of FMgr. It is widely accepted that the customer plays an important role in the service industries. It is generally assumed that the contribution of high level service quality can achieve profit maximization through customer satisfaction [31]. Hence customer's expectations and perception have attracted considerable attention of both researchers and FM practitioners. [22] on their study to measure customer satisfaction, said the latter is an ambiguous and abstract concept that varies between industries. A business mindset, in making services and facilities accessible should consider responding to customer's feedback, almost immediately, that represents determining factor in identifying the level of quality delivered by FMgr. In Malaysia, the government launched GTP / Government Transformation Programme (2001) to improve the efficiency with which the government delivers its services [32]. It identifies areas for improvement called NKRA / National Key Result Areas that initiated the need for process review in order to make deliverables possible. The effectiveness in responding to customer's feedback depends on workflow scheme as well as action from management to improve quality of services and facilities [33]. [34] said that FMgr should be delivering vision as strategic business discipline, which supports a particular approach to a specific objective and serves as a guide that can be modified as required by adding real value to the industry within its prescribed framework.

Many uncertainties remained an open discussion regarding the way FMgr should perform its role. [35] cited there is no systematic guideline to benchmark and measure service performance. Instead, an existing process improvement framework from construction industry called SPICE (structured process improvement for construction

environments) has been adopted as it has been proven successful by US Department of Defense.

A framework on FMgr shall cover both issues on methodologies ('how to'), and variables that affect FMgr role ('what is') that provides overall picture and structure towards effective performance [36]. With increasing changes in technology and market demands, there is a need for organization to address issues relating to productivity and efficiency, being productive means 'producing more in a given resources', whilst being efficient means 'continuously maintaining productivity'. In general, it is safe to say whether the FM system or FMgr framework has successfully meet its target performance using best-practice technological and managerial processes [37]. In Malaysia, many organizations are still failing to recognize their organizational problem to the need of defining FMgr portfolio. [38] also cited similar domains when discussing about job challenges for facilities managers. In correlation, the absence of process functional requirement for support services, constituted to issues of efficiency for the organization [15]. The changes that are occurring in business activities have spurred employees, specially maintenance and FM personnel, to realize the importance of building and their interaction with people and processes [1].

AIM

The aim of this study is to identify the challenges and factors towards improving the performance of the facility manager.

METHODOLOGY AND ANALYSIS

This research will look into the role of FMgr and its significance in building services. In particular, using mixed methods which involved a triangulation approach. At the end of this study, a framework shall be established to reposition FMgr portfolio that meets organizational strategic objectives.

In the literature findings, the gap analysis indicated basic awareness in managing facilities within the industry with an obvious lack of adequacy of 'what is acceptable' to meet end-users expectation. FM scenario in Malaysia is in need of rigorous exposure in terms of knowledge and know-how. There are future opportunities within the environment that will help to enhance better understanding of Facilities Manager / FMgr importance and its scope. It will provide a direction on how FMgr role can initiate productvity for the organization. It focuesses on how organization should remain competitive and dynamic.

A series of in-depth interviews were expected to be conducted involving experienced senior management i.e. general managers and directors within the industry, particularly those who have ample experience dealing with facilities management.

A preliminary questionnaire surveys was conducted to 20 FMgr on their knowledge and opinion on several issues with regard to facilities management process based on their experience of being in the construction industry which include their roles and challenges by them.

Table-1. Roles of facilities managers in Malaysia (preliminary interviews).

SC areas	Action	Rank
Operational Cost	Make correct projection in periodic budgetary allocations and continue to do so without affecting company's original bottom line target.	1
Quality of Services	Improve productivity and efficiency that meet End-user satisfaction within the predefined processes.	2
Risk Management	Optimize and reallocate risk to various processes so that there is always a workaround solution to maintain the flow.	3
Organizational Needs	React effectively to the various levels of end-users, internal and external to the organization.	4
Manpower Expertise	Formulate supporting role of the FM team in handling of issues via process accountability and resolution methods.	5
Business Growth	Ensure supporting role that provide positive growth in the financial and intangible sections of the organization.	6

Table-2. Resolution methods.

SC areas	Plan and control
Operational Cost	Process flow simplification, use of cost base time sheet, technology automation and system drive.
Quality of Services	Use agreed standard, survey and feedback from end-users (both internal and external), documented evidence, timeline activities.
Risk Management	Risk review into smaller areas, focus group assignment.
Organizational Needs	Role playing and accountability with all parties.
Manpower Expertise	Training, standard bearers mentoring, re-educate, teamwork.
Business Growth	System driven measurement like KPI, external networking.

PRELIMINARY FINDINGS AND DISCUSSIONS

It was found that the issues facing the current Malaysian facilities management (by ranking of diminishing order of significance): operational cost, quality of services, risk management, organizational needs, manpower expertise and business growth. In terms of problem resolutions, the prelim interviews highlighted inadequacy in defining acceptable service level, process review and measurement, choice of technological support, budget utilization and allocation as well as overall organizational target. [39] Kamarazaly *et al.* (2013) also cited similar domains when discussing about job challenges for facilities managers.

CONCLUSIONS

The appropriate characteristics of the general public awareness and reputation of FM are still unknown while there are still growing interest by several associations to raise perceived reputation of FM, as a business sector. Over the period, it is foreseen the evaluation of contemporary issues on FM within building services context, will conclude the framework's final target of repositioning the profession; either as internal division to parent companies or as external outsourcing enterprise.

In the findings, the gap analysis indicated basic awareness in managing facilities within the industry with an obvious lack of adequacy of 'what is acceptable' to meet end-users expectation. FM scenario in Malaysia is in need of rigorous exposure in terms of knowledge and know-how. There are future opportunities within the environment that enable FM practitioners to bring the excitement to the industry.

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