Facilities Management In Malaysia

FOR this issue of JURUTERA, Engr. Lum Youk Lee, Chairman of METD, has brought together leaders from various industries to get their opinion on facilities management (FM) in Malaysia. They are Engr. Ong Ching Loon, CEO of Cofreth (M) Sdn Bhd; Mr. Tung Chee Kuan, Director of Industrial Liaison, DPCCE, Ministry of Higher Education; Engr. Dr Philip Tan, Executive Consultant of Genting Sanyen (M) Sdn Bhd; and Engr. Dr Cheong Thiam Fook, Executive Director of George Kent.

In few words, can you explain what is FM?

Lum: FM is best described in three words, 'Engineering Best Practice, Return on Investment and Maximise Yield'.

Ong: FM, as defined by the International Facilities Management Association (IFMA), is a profession or service provision that encompasses multiple disciplines to ensure the satisfactory functionality of the Built Environment by integrating people, place, process, technology and environment. The key word here is 'Built Environment'. That is, whatever that is constructed, installed and fitted is to be managed in such a manner that its functionality serves its intended purpose.

Thus, in any built environment, be it residential, industrial, commercial or institutional, there are the shelf and core of a base building, building services and interior fit-outs. Each of the components or facilities that make up the 'asset' is required to serve its full lifecycle and extend it where possible. Hence, FM involves people, finance, technology and management expertise.

FM is very complex. The high magnitude of sophistication necessitates a holistic professional approach. FM does not just cover operations and maintenance, although these are a substantive part of FM, other non-technical aspects are equally important to ensure proper functioning of the built environment.

IFMA espouses nine core competencies, namely, Operation and Maintenance; Real Estate; Human and Environmental Factors; Planning and Project management; Leadership and Management; Finance; Quality Assessment and Innovation; Communication and Technology. The acquisition of each of these core competencies is the pre-requisite to a professional FM.

The satisfactory functioning of the built environment results in low lifecycle costs through reduced operations and maintenance costs, extends the lifespan of the facilities, improves the indoor environmental quality and provides sustainability of the assets.

In relation to your industry, how many percent of your annual budget is allocated for maintenance?

Tan: In our industry, the maintenance cost average about RM40 million or 12% of the annual budget.

Cheong: In mine, it is approximately 3% of the total capex of the facility and fixed asset installed.

Lum: Generally, the budget depends on the size of the building and the nature of the business. The monthly budget is around RM30,000 for the smaller residential high-rise to RM200,000 for more complex commercial buildings. There are also other factors to consider such as the building's age, weightage of A&P (advertising and promotion) and service level (either high end or low end condo).

What is the biggest disaster you have ever experienced in your industry due to maintenance failure?

Tan: Our greatest disaster was when a maintenance personnel over screwed a bolt which resulted in an undetectable small puncture to an insulating skin. When the machine was put back into operation, it subsequently developed a current leakage that was detected by our monitoring system.

As a result, the machine had to be taken offline again so that the damaged area could be remedied. Not being able to operate the machine led to a penalty being imposed by our customer. The initial estimate was about RM20 million. However, due to our subsequent optimisation between loss of efficiencies and penalty payments, we were able to reduce the penalty by almost half.

Cheong: In my case, the interruption to production not only caused downtime, but also expensive repair bills many times more compared to normal maintenance.

Lum: Although most of these incidents are costly, they are not fatal. For example, an electrical system failure in a shopping mall complex resulted in thousands of movie tickets being refunded and the lost in retail revenue. In another case, a poorly imbalanced commercial high-rise building power load caused an explosion at the busduct and the tenants from several storeys suffered from a blackout. In yet another case, a tenant demanded for rental reduction when 50% of the landlord's chiller system had to be shut down for a weeklong overhaul exercise.

How does FM relate to the increase in profits?

Tan: The whole management of our facility is about profit and whatever extra we can get out of it. If we do not manage our facilities according to international standards, a penalty is imposed by our customer. If the standard falls below a certain value, we lose not only profit, but our investment cost for the facility as well.


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Mr. Tung Chee Keong


Engr. Ong Ching Loon


Engr. Dr Philip Tan


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Cheong: The optimisation of the production output helps ensure the continuity and sustainability of the facility's performance.

Lum: Good FM will lead to less wastage, less downtime and improve the bottom line. When FM is well rendered, you get happier customers, and they will pay you more rent.

What is your take on outsourcing and in-sourcing?

Tan: It has always been our business philosophy to outsource whenever it is optimal to our operations. Our philosophy has always been this: if we find one ringgit on the floor, we do not take everything. We take only 80 sen and let others take the remaining 20 sen. This does not only apply to outsourcing but also in business dealings even when we have all the advantages.

Cheong: I would choose to train an in-house maintenance team for general works, but would outsource specialist skills to achieve cost effectiveness.

Lum: We should in-source FM skills that bring relevant and significant long term value to the business. For example, some hotels may find it important to have a high level and wholly owned long term security service, but that may not be the case for condominiums or factories. Likewise, although energy management cost may be important for a manufacturing plant, but if certain initiatives are needed only on a one off basis, it may be too costly to own an energy management team for the long term.

How do you see the demand for FM in the marketplace?

Ong: FM is relatively new in Malaysia, still at the infancy stage. Presently, the adoption and practice of FM is predominantly focused on MNCs and government agencies such as JKR. The tangible and intangible benefits of FM have yet to convince laggards in mostly commercial buildings, some of whom are penny-wise, pound-foolish.

These laggards do not believe in the strategic management of facilities and adopt knee-jerk responses to problems related to the built environment at the expense of safety, health, security, comfort, operationability, image (poor branding), shortened facilities' lifespan and reduced asset values. Property owners, who are speculative in nature, naturally fall under this category due to their myopic perspective.

Thankfully, of late, there has been heightened awareness on the need for professional and strategic management of assets through FM either from local and international success stories or the bad publicity of incidents in various buildings. This inevitably leads to an increasing trend of FM adoption.

Also often forgotten is the fact that properties have long lifecycles and, thus, the need to continually maintain, repair and retrofit. Once Malaysians adopt as a way of life the best practices of maintenance regimes, and by extension FM, the colossal gross floor areas of buildings and factories nationwide amounting to more than 350 million sq ft offers a great career potential and business opportunity.

Tung: I am very enthusiastic about the future demand for FM. As the saying goes, 'As long as buildings exist, there will be a demand for facility management'. However, the challenge is to educate building owners as to the benefits of FM. The ultimate benefit of FM, i.e. value appreciation of the property, image and long term cost, has to be fully understood and appreciated by building owners for the industry to develop. Building owners should be able to see the long term gain.

Which fields of graduates are likely to enter the FM industry?

Ong: There is no statistics on which profession dominates FM. Traditionally, besides designing, engineers lead in the Operations and Maintenance (O&M) of facilities that were constructed and installed. The evolution of FM does not in any way minimises the role of engineers as they are involved in the process of a built environment which is regulated and highly technical, yet safe to occupy. The only exception is that, to be an effective Facilities Manager, engineers must now master other strategic management knowledge such as finance, human resources, operations and various soft skills.

However, in an environment where O&M functions are out-sourced and with the shortage of engineers in Malaysia, there is now a shift from the conventional to where non-engineers are leading FM in both residential and commercial properties.

While some of these non-engineering Facilities Managers may possess a FM degree, a property management degree or other related degrees, and may perform well, the role of engineers in the FM industry will continue

to be substantial. As in a built environment, the engineering design must be continually evaluated and managed to serve its intended functions for the entire lifecycle and can only be successfully attained by engineers.

Of course, in any non-regulated and free market environment, a graduate in any discipline who acquires the nine core competencies should be able to discharge the functions of FM relatively well. An engineering degree is definitely an added advantage.

Tung: Based on my observation, graduates who enter this particular field are those from the building, real estate management, electrical (power) and mechanical disciplines. However, at the sub professional level, polytechnics have been producing building services engineering graduates at the diploma and certificate level since 1991. The yearly number of graduates total at around 220 from both the diploma and certificate programs. Many of these graduates have enter the FM industry while some have pursued further studies overseas and subsequently enter the industry as well.

How can the private sector and academics help make FM a more well received profession or career?

Ong: This is a scenario of both supply and demand, and a matter of perception. When private sectors do not perceive the benefits of practicing FM, there will be no generation of new facilities managers or FM service providers. Similarly, when engineers and other graduates perceive FM as a 'blue-collar' job not befitting their professional training, they will shy away from this profession.

With the gradual paradigm shift from the private sectors and commendable efforts of JKR to contractually require facilities managers who are engineers to manage and maintain government buildings, the FM industry is expanding. The momentum to build capacity by private training providers has started although the attendance has been disappointing. Trainings were mostly ad-hoc and there is an absence of structured plans to this effect.

The profession needs to have an association for the practitioners and service providers to chart the development and growth of the industry. It has to be a market-driven initiative recognised by the government. The primary objectives of the association should be to share knowledge, introduce best practices, provide benchmarks, set world-class standards, conduct structured training courses to build capacity, promote the professional image of the practitioners and perhaps introduce accreditation. IEM has commenced a position paper on 'Sustainable Facilities Management' to address the same concern.

Tung: Collaboration is the keyword. There are various areas of collaboration whereby the private sector and academics can work together. About 20 years ago, the Education Ministry gathered experts from various industries (IEM building services division, ACEM, Daya Urus, PWTC Maintenance Division, KTA, etc.) for feedback and input when the Building Services Engineering Diploma program was developed. The scope of the curriculum has since been reviewed, and a Facility Management Diploma program is being proposed. A recent meet-up with industry representatives with the active involvement of METD, IEM to deliberate on the matter has provided good input and support.

Various areas for collaboration that can be initiated include student industry training, academic staff industry attachment, industry lecturers, joint projects, career and professional talks and seminars, and collaborative training. In fact, the Polytechnic Division of the MOHE organised a national seminar on facility management in 2006 with the support of the industry and METD. This has benefited both the academics and maintenance personnel of the institutions. I am sure that, with these collaborations, the academic programs

implemented would be more relevant, and there will be fewer mismatches of academic-industry expectations, thus ensuring better employability of the graduates. This would eventually make it a well received profession.

In the area of FM, what are the current initiatives by the MOHE, and how is the response in terms of enrolment and the private sector's feedback?

Ong: MOHE has initiated efforts to introduce more FM degree courses in the country in preparation for the growing demand of this industry. More publicity will be made to attract potential students to venture into this profession. The success will be gauged gradually as human capital development takes time.

Tung: The Ministry has always been sensitive to industry requirements while playing the role of educators. This has led to the development of programs at different levels ranging from broad based to specific focus areas. While there are numerous FM related programs at the bachelor and post graduate level, the Ministry has also looked into manpower at the diploma and certificate level. There is a community college which offers a Diploma in Facilities Maintenance and Management using the Work Base Learning approach whereby students are attached with industry partners for a year with the curriculum being developed jointly. The instructional and assessment activities are also implemented jointly.

With the evolving new demands and scope in property and facilities management, the Ministry has also taken an effort to look into the restructuring of the building services engineering diploma program and the introduction of the facilities management diploma program.

In the higher education institutions, it is not always easy to match course enrolment to students' application. In the early days when the building services engineering certificate program was introduced back in 1989, it was not uncommon to have only three out of a class of 40 students who applied for the program as their first choice of study. A lot of career and ambition counselling effort was put in, and ultimately, many of these students have progress well upon graduation.

'Facility management' or 'maintenance' often relates to 'cost savings'. Can FM represent 'money making' for both the service provider and the service user?

Ong: While it is true that FM or effective maintenance regime leads to cost savings, one must not ignore other non-financial advantages. In the context of office buildings and industrial plants, FM, when implemented professionally, provides among others, a safe, healthy, clean, business friendly, thermally and acoustically comfortable environment, all of which are no less important than monetary savings.

Facility owners save money from lower lifecycle costs through energy and water efficiency, lower repairs, and maintenance and replacement costs. More profits can be generated from tenancy retention, tenancy growth and higher rental rates resulting from increasing tenancy demands.

Service providers normally make profit from the economy of scales of bulk purchase and effective vendor procurement strategies, savings from substantially reduced repair and maintenance costs and profit sharing with facility owners for other cost saving initiatives.

Lum: The building owner wants efficient and effective FM service rendered to improve the bottom line, not only through savings, but also through tenantability enhancement that leads to direct increase in revenue.

Are we ready to go global in this profession?

Ong: To a certain extent, we are ready to compete in the international arena of the FM industry. Malaysian FM players, however, must always take cognizance of the fact that the global market is highly competitive, risky and of world-class standards with players from developed nations; therefore, being a 'Jaguh Kampung' is not enough. We must always continually upgrade and maintain our professionalism, provide delightful service and acquire new technologies, knowledge and deliver par-excellence.

Lum: It would be a difficult process. Compared to our neighbouring country, high end properties in Malaysia lose out in terms of complexity, value and quantity; together with cheap energy, poor enforcement and a lack of practical incentives in green initiatives, there is less demand for high level FM services such as energy management, and we are certainly not globally competitive in terms of labour costs for low level FM services. On the other hand, we are good at building white elephants and empty large complexes with horrible ROI. If we look at this positively, this is actually a unique competitive advantage and an edge for our FM to go global.

What are the academic and soft skills that are needed in the FM field?

Tan: Our facility is being monitored continuously 24 hours a day and 365.25 days a year. We can monitor it from our house or even when we are overseas. Many of the parameters that we consider important to monitor have been configured by our own engineers. As such, we place an emphasis on not just the soft skills but, more importantly, the talent of our engineers. Academic qualification by itself is not sufficient.

Cheong: Besides fully understanding the technical knowledge of the facility and statistical records of the assets, people management also forms a very critical parameter of successful FM.

Lum: The academic skills that would be required are engineering, legal and property management. In terms of soft skills, one must have presentation, negotiation and communication skills.

From the academic point of view, how do we fare compared to our international counterparts?

Tung: While I do not have a very systematic comparative study, informally, I have met up with past graduates of the building services engineering program. Quite a number has since been accepted into universities in the United Kingdom to pursue their degree, some completing their program (General Degree program) within one academic year.

A few years back, a local M&E consultant was regularly recruiting diploma graduates for their overseas projects, while a local hotel found these graduates good enough to be placed in their overseas operations. A recent tracer study on graduates reviewed that 51% of the diploma graduates are employed by the private sector, while another 11.4% found employment in MNCs. While these international placements constitute some form of recognition for the program, this may not be conclusive without a formal comparative study.

Tan: When the operating concept for the facility was first moulded in this country about 15 years ago, the standard required to conform to at that time was already way beyond the average prevailing in the United States for this type of facility. Our facility is annually benchmarked by the Malaysian Productivity Centre (MPC) with similar facilities within the country. MPC would then compare the facility average for Malaysia with those overseas wherever available. Of those that I have seen so far, I would consider us among the top.

Do you think FM in our country, which is currently at the infancy stage, will eventually turn into a high demand profession and regulated industry?

Tung: I have always likened FM as a profession that has been taken for granted. The importance may not have been fully realised until systems breakdown, safety and health of the occupants put at risk, property value depreciation and the increase of operating costs. With the increasing demand for comfort and quality lifestyles, energy efficient buildings, green technology initiatives and more complex building environmental systems would need to be developed, thus bringing a more challenging expectation from the profession.

The universities are also playing their role by offerings programs such as Facility and Real Estate Management up to the doctorate level at the Universiti Tun Hussein Onn Malaysia. A regulated industry would ensure better control of work quality, but should not hamper the implementation process of the industry. It is my fervent hope that the academia and industry can work hand in hand to turn FM into a highly sought after profession.

Tan: For the industry I am in, I do not consider it to be at its infancy. In fact, our Malaysian flag is already flying high in China, India, Thailand, Singapore, Indonesia, England, Australia, Bangladesh, Ceylon, Pakistan, Egypt, Saudi Arabia, Jordon, Abu Dhabi and many others.

Cheong: FM in Malaysia is not in its infancy stage. I first came across it way back in 1990, however, at that time, there was no believer in it. Many of us still feel that FM is just another maintenance management. I believe FM is a self-driven type of philosophy and we must buy into it and not be forced into it. In fact, it is important for all to understand the importance of FM to achieve efficient asset lifecycle costs. ■