

#### PLANNING MALAYSIA:

*Journal of the Malaysian Institute of Planners* **VOLUME 17 ISSUE 1** (2019), Page 35 – 47

# STRATEGIC FACILITIES MANAGEMENT FUNCTIONS FOR PUBLIC PRIVATE PARTNERSHIP (PPP) HEALTHCARE SERVICES IN MALAYSIA

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#### **Abstract**

There is an increase trend seen in the implementation of public private partnership (PPP) to deliver public infrastructures in Malaysia. In healthcare sectors, particularly hospital, PPP has been adopted by the government as one of the sourcing strategies in providing facilities management (FM) services. In this arrangement, facilities management plays an important role in ensuring the success of partnership. Yet, investigations on strategic facilities management functions are inadequate. Thus, this paper aims at identifying the strategic facilities management functions for PPP healthcare within Malaysian context. Interview sessions were conducted with industries practitioners involved in the implementation of PPP facilities management in Malaysia. Data collected were analysed through content analysis. Responses from the respondents indicated three main categories of strategic FM functions, which are Formulate Strategies, Determine Service Requirement and Communication. The findings provided clear strategic FM functions that are crucial in aligning the FM division with PPP stakeholder's vision.

**Keyword**: facilities management, strategic functions, public private partnership, healthcare services

#### INTRODUCTION

There is an increasing demand for improved public infrastructure and services worldwide. Expectation of the community towards the government in providing them the best services has kept on rising. Hence, most governments have started adopting new strategy in delivering their services through partnership with private sector to design, finance, build and manage their projects, which is also known as public private partnership (PPP) scheme. With the involvement of the private sector, PPP scheme is believed to help the government in delivering better infrastructures and services.

Most countries have begun to use the PPP for economic infrastructures and gradually move into social infrastructures such as schools and healthcare (Espigares & Torres, 2009). In line with the development in PPP implementation, the involvement of private sector is encouraged not only in financing and building the infrastructures, but also in the operational phase specifically to deliver services that support the running of organisational business (Takim, Abdul-Rahman, Ismail, & Egbu, 2008). This development has highlighted the needs for facilities management (FM) at design (Edum-Fotwe, Egbu, & Gibb, 2003; El-Haram & Agapiou, 2002; Ling, Shaharom, Marzukhi, & Marzuki, 2018) and operational phases of PPP projects (Oyedele, 2013; Robinson & Scott, 2009; Wang, 2010).

PPP arrangement has demanded an efficient FM function; yet, little attention was given to this subject. Hinks (2002) and Chotipanich (2004) emphasised that the function, management role, scope and priority of FM functions should be designed to fit with an organisation or business. Thus, the establishment of FM functions in delivering PPP is important as different delivery strategy requires different approach. On top of that, Wiggins (2010) stated that lack of understanding in the overall scope and range of responsibilities is often occurred in FM field. Therefore, the establishment of FM profile for a specific project would result in an appropriate FM practice and arrangement (Chotipanich, 2004). Subsequently, this study seeks to propose a structured FM division for PPP scheme through the establishment of clear strategic FM functions.

#### LITERATURE BACKGROUND

The recognition of FM functions within an organisation is essential in delivering both strategic management and operational services of FM. From the management perspective, FM is considered as a continuous process that operates within three management levels namely strategic, tactical and operational. Meanwhile, functional perspective of FM emphasised the action done or local procedure within the organisation, which is responsible for FM services (Sarshar, 2006). Thus, the delivery of FM services requires various strategic management functions from the division.

# **Strategic Management Functions of FM**

Strategic level is the top level of management in every organisation. All the planning, decision and strategies developed at this level are for a long-term span. This level consists of decision makers whose mission is to achieve organisation's objectives in long term period (Talamo & Bonanomi, 2015). In FM context, strategic management functions are related to the establishment of overall long term strategies and translation of legal and stakeholder requirements as well as expectations into service outcomes (CIDB, 2011). The following table shows the general strategic FM functions discussed by previous scholars and FM organisations.

Table 1: General strategic FM functions

	FM functions	Scope of functions	Sources
1.	Define overall FM strategy	Development of FM strategies from organizations' mission and vision statement.	Jones, 1996; Wiggins, 2010
2.	Establish policy and guideline	Establishment of policy and coordination guideline to describe responsibility, process and procedure for facilities planning, design, and construction, and reporting of services delivery activities.	Cotts, Roper, & Payant, 2009
3.	Initiate risk analysis	Establish clear objectives and statement in regard to the risk management and	CIDB, 2011

		communicate with the organization in regards to the risk that the organization is willing to accept.	
4.	Establish effective purchasing and contract strategies	Identify the advantages and disadvantages of different contract types available can be used in purchasing FM services and product	Wiggins, 2010; Atkin & Brooks, 2009
5.	Formulate building and service appraisal	Present the new planning processes or procedures from based on the appraisal conducted when the organisation is either shrinking or expanding or in	Barrett & Baldry, 2009
6.	Identify and select maintenance strategies	Develop maintenance policy and select the best maintenance strategy from a set of possible alternatives such as corrective, preventive, opportunistic, condition-based and predictive maintenance.	Shyjith, Ilangkumaran, & Kumanan, 2008; Chanter & Swallow, 2007
7.	Manage facilities impact	Quantify the impact of facilities	Wiggins, 2010; Barrett & Baldry,

		towards the organisation's business as well as environmental and community.	2009; Alexander & Brown, 2006; Cotts et al., 2009
8.	Conduct strategic alignment, analysis, and briefing	Align the overall FM strategy and process with client situation. Conduct strategic analysis in order to understand client property portfolio, its real estate strategy and associate services.	Wiggins, 2010; Nutt, 1993; Martin, 2004
9.	Create service partnership	Establish clear benefits, objectives and milestone with the selected partners.	Atkin & Brooks, 2009; Lehtonen & Salonen, 2006; Ventovuori, Lehtonen, & Miettinen, 2004
10.	Negotiate service level agreement and standard	Develop and negotiate a clear service level agreement (SLA) and standard before service delivery is started.	Grigg, 1996; Wiggins, 2010
11.	Initiate and monitor key performance indicators (KPIs)	Initiate focus and goals of KPIs. Aligning FM KPIs with organization's measurement philosophy and requirements.	Booty, 2009; Wiggins, 2010

12.	Identify business needs and user"s requirement	Identification of client (the party that agrees the service and foots the bill) and who is the customer (the end user); and balance the satisfaction of both parties.	Grigg, 1996; Noor & Pitt, 2009
13.	Creation of an active input and response at corporate level	Provide information and updates on the contribution of FM to the achievement of corporate objectives by saving costs, or adding value, and increasing both	Chotipanich, 2004; Then, 1999; Cotts et al., 2009
14.	Maintenance of relations with strategic partners	Develop partnership relationship between clients/end-uses and suppliers/service providers.	Wiggins, 2010; Barrett, 2000

It was discovered that detailed disclosure of strategic functions of FM is very little. Basic management functions of strategic FM were identified through various resources such as FM books, FM manual and several FM profession articles. The initial idea of this study is to identify specific FM functions for PPP healthcare services. Moreover, studies that put forward this subject area are very limited especially within the Malaysian context. Hence, this paper attempts to fill this gap through experts' interview. The next section discusses how the study was conducted.

#### RESEARCH METHOD

This study adopted qualitative method. Interview was considered as the most appropriate method to be adopted as it enables researchers to communicate with the main sources (PPP stakeholders and PPP facilities management stakeholders)

that provide information on PPP facilities management. A purposeful discussion enables researchers to gather valid and reliable data to answer research questions and objectives (Saunders, Lewis, & Thornhill, 2009). Purposive sampling, which is one of the most common sampling techniques used in qualitative research (besides quota sampling and snowball sampling (Mack, Woodsong, MacQueen, Guest, & Namey 2005)), was adopted in selecting the respondents for the interview. It is known as a non-random technique involving the selection of individuals or groups of individual that are proficient and well-informed on a phenomenon of interest (Creswell & Clark, 2011).

Based on knowledge and experiences, PPP facilities management practitioners were observed able to give good input for this study. The selection process began with identifying PPP facilities management stakeholders in Malaysia. Saturation (Suri, 2011) and time frame (Mack et al., 2005) were used as the guiding principles for sample size. Moreover, it has been emphasised by Mack et al. (2005) that purposive sample sizes are determined on the basis of theoretical saturation and mostly successful when the data review and analysis are done in line with data collection. Throughout the data collection (interview) phase, it was found that eight respondents were sufficient to obtain the desired information, and the interview was stopped when there was no new data discovered. Nevertheless, time frame allocated for this study has limited the amount of interviews that can be conducted.

Content analysis was used to analyse the interview data using Qualitative data analysis software (QDAS) – Nvivo 11. This analysis involved coding process by organising the data into conceptual categories (sub-functions). The themes of concept (FM functions) were then created to categorise the obtained sub-functions.

## FINDINGS AND DISCUSSION

A total of eight interviews with the PPP facilities management practitioners were conducted. Alphabets including 'Respondent A' were used in this section to protect the identity of the respondents. Responses from the respondents suggested three categories of FM function at strategic level, which were Formulate Strategy, Determine Service Requirement and Communication. Identified sub-functions under each category of FM functions were either confirmed, not cited or added from the ones discovered from the literature. 'Confirmed' indicated that the subfunctions and its management level identified from the interview have been discovered earlier in the literature. Meanwhile, 'Not cited' indicated that these sub-functions have been discovered in literature, but were not mentioned by any respondents. Furthermore, 'Added' indicated the discovery of new sub-functions and its management level through the interview. The following Table 2 displays the findings from the analysis conducted.

**Table 2:** Strategic FM functions and sub-functions for PPP healthcare services

No.	FM Functions & Sub-Functions	Status	
Develop Strategies			
1.	Define overall FM strategies	Confirmed	
2.	Establish policy and guideline	Confirmed	
3.	Initiate risk analysis	Confirmed	
4.	Establish effective purchasing and contract strategies	Confirmed	
5.	Formulate building and service appraisal	Confirmed	
<b>6.</b>	Identify and select maintenance strategies	Confirmed	
7.	Manage facilities impact	Not Cited	
8.	Conduct strategic alignment, analysis, and briefing	Confirmed	
9.	Create service partnership	Not Cited	
10.	Develop vision and mission	Added	
11.	Develop business unit	Added	
12.	Formulate business model	Added	
13.	Establish project viability	Added	
14.	Develop total integrated healthcare FM	Added	
	Determine Service Requirements		
15.	Negotiate service level agreement	Confirmed	
16.	Initiate and monitor KPIs	Confirmed	
17.	Identify business needs and user's requirement	Confirmed	
Communication			
18.	Create active input and response at corporate level	Confirmed	
19.	Maintain relations with strategic partners	Confirmed	

# **Develop Strategies**

Develop Strategies focuses on the essential aspects in the operation of services and the overall functions of FM. Respondents are mostly highlighted on the development of FM strategies, policy, vision and mission, strategic alignment and the need to consider the lifecycle perspective as well as long term commitment of FM. Typical statements from respondents were captured here as:

"At strategic level, FM is responsible in ensuring that the vision of the Ministry of Healthcare (MOH) is met. For example, if a client wants to provide sustainable healthcare facilities, FM needs to develop FM strategies based on that purpose. Then, these strategies need to be translated into the vision and mission of the whole organisation" Respondent G.

"Strategic is important for policy making and developing strategies from a lifecycle perspective. As PPP contract may be up to 25-30 years, all the aspects need to be viewed from a long term perspective and considered the whole life cycle of the projects" Respondent H.

The abovementioned functions are in line with the decision making process conducted at strategic level, which covers various aspects such as maintenance strategies, contract strategies, business model, risk analysis and project viability. A respondent stated that:

"In formulating business model, top level may consider several options such as contract management, contract services and contract procurement. Or in term of sourcing, they have to choose either to outsource, insource or smart sourcing. There are lots of strategies available, but it is strategic function to choose the one that benefits the projects as well as division" Respondent C.

Analysing the whole project is crucial enough for strategic level. In explaining this function, one respondent has highlighted the establishment of project viability in detailed as depicted below:

"For project viability, we have to conduct various analyses including demand and supply of project for now or in future. We also have to look into the needs of project development, social economic benefits, economic multiplier effects and the Government's affordability as well as capital expenditure. After that, we will continue with analysing project financial cash flow, bankability of project financing and terms of loan versus equity structure. This is where we look into the internal rate of return, management cost of the third party contracting and decide on reasonable profit margin" Respondent F.

Besides, this level needs to strategise business unit for a project. Various expertise, knowledge and skills are needed in delivering the services. In terms of staffing, training aspect was frequently mentioned by the respondents as one of the initiatives to ensure the quality of services. Some statements from respondent for this function are:

"For PPP, our company wants to maintain the level of services so we will ensure that the right people are doing the right job. When we hired new staff, we provide a proper training for them. It is not an easy task as we have to properly train and monitor them, but this is a way for us to control the quality of services. Usually, it took four month for staff to learn the right way to do their job. But, if they are still unable to do their job after four month, it means that they are not competent enough so we will do some replacements" Respondent E.

Moreover, the formation of total integrated healthcare FM has to be conducted at strategic level. Respondents emphasised on five main services to be provided by FM division once the hospital started its operation, which are facilities engineering maintenance services (FEMS), biomedical engineering maintenance services (BEMS), cleansing services (CLS), linen and laundry services (LLS) as well as hospital waste management services (HWMS). A typical statement for these is illustrated as follows:

"Strategically, we need to integrate these five services. Coordination of these services will ensure the smooth running of their delivery and operation" Respondent B.

## **Determine Service Requirement**

The second FM function identified at strategic level is analysing requirements. This function focuses on the services to be provided particularly in terms of service level, performance and service required by the users.

"After clearing on vision and mission, FM has to determine the level of services. The aim here is to provide the services that meet client's expectation. The first aspect that we look is response time that shows how fast we can respond to clients. Number two is reliability and availability of equipment that we provide. How many percent of the equipment must be available? How many minutes the breakdown can happen? So, we can say that in strategic, there is level of service. Then in level of service, there are other aspects including performance and cost" Respondent E.

With regard to the client's need and user requirements on the services:

"Unit Kerjasama Awam Swasta (UKAS) will prepare statement of needs based on client's requirement received from the MOH. So FM will outline the services based on this statement of needs" Respondent A.

"Example of our roles here is to propose how many beds, how many operation theatres, types of facilities, how big is pharmaceutical space and the ancillary services needed by clients. All of these aspects are initiated from client's requirement prepared by the UKAS in form of statement of needs" Respondent E.

## Communication

The third FM function identified at strategic level is communication, which reflects the role of FM to create communication link among top managements of FM party, organisation/clients and other key players. Respondents discussed the active communication and relations between FM and other disciplines.

"In PPP, various backgrounds are involved in delivering the projects. It is important for FM to get mutual understanding and maintain a good relationship with other strategic partners of the project" Respondent A.

"Some processes including the identification of client needs involve the integration of multiple engineering disciplines and synergy of support services. So, FM should exchange information with other disciplines" Respondent I.

#### **CONCLUSION**

This study has discussed strategic FM functions of PPP healthcare services particularly in the Malaysia context. It has highlighted the identification of FM profile needed for a new arrangement in delivering FM services that includes PPP scheme. Strategic FM functions and sub-functions have been identified through interviews with PPP facilities management practitioners consisting the public and private sectors. The analysis revealed that FM functions at strategic level are very important in aligning the division with PPP stakeholder's vision. These stakeholders of PPP facilities management for healthcare services are the Ministry of Health (MOH), hospital organisations and patients. Therefore, this level will determine the direction of strategic FM and ensure that this direction can be translated into its daily basis. Three categories of FM functions have been identified at strategic level, which are Develop Strategies, Determine Service Requirements and Communication.

These findings should be further tested as the discovery of the FM functions is not complete without the priority of the functions and their relationship with the performance of PPP projects. Therefore, strategic FM functions and sub functions specifically for PPP facilities management obtained in this study can be a good basis for the developing another instrument in the next level of study.

#### REFERENCES

Alexander, K., & Brown, M. (2006). Community-based facilities management. *Facilities*, 24(7/8), 250-268.

Atkin, B., & Brooks, A. (2009). *Total facilities management*. Chichester: Wiley-Blackwell.

- Barrett, P. (2000). Achieving strategic facilities management through strong relationships. *Facilities*, *18*(10/11/12), 421-426.
- Barrett, P., & Baldry, D. (2009). *Facilities management: Towards Best Practice*. Oxford: Wiley.
- Booty, F. (2009). Facilities management handbook. Croydon: Elsevier/Butterworth-Heinemann.
- Chanter, B., & Swallow, P. (2007). *Building maintenance management*. Oxford: Blackwell.
- Chotipanich, S. (2004). Positioning facility management. Facilities, 22(13/14), 364-372.
- CIDB (2011). Asset & facility management implementation manual. Kuala Lumpur: Author.
- Cotts, D. G., Roper, K. O., & Payant, R. P. (2009). *The facility management handbook*. New York: AMACOM.
- Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research*. Los Angeles: SAGE Publications.
- Edum-Fotwe, F. T., Egbu, C. O., & Gibb, A. (2003). Designing facilities management needs into infrastructure projects: case from a major hospital. *Journal of Performance of Constructed Facilities*, 17(1), 43-50.
- El-Haram, M. A., & Agapiou, A. (2002). The role of the facility manager in new procurement routes. *Journal of Quality in Maintenance Engineering*, 8(2), 124.
- Espigares, J. L. N., & Torres, E. H. (2009, February). Public and private partnership as a new way to deliver healthcare services. *XVI Encuentro de Economía Pública*. February 5-6, 2009, Palacio de Congresos de Granada.
- Grigg, J. (1996). Facilities Quality Management. In K. Alexander (Ed.), *Facilities Management: Theory and Practice* (pp. 57-70). New York: E & FN Spon.
- Hinks, J. (2002). Measuring the value of facilities and facilities management. In J. Reuvid & J. E. Hinks (Eds.), *Managing business support services* (pp. 177-187). London: Kogan.
- Jones, O. (1996). Value management. In K. Alexander (Ed.), *Facility management theory and practice* (pp. 71-80). New York: E & FN Spon.
- Lehtonen, T., & Salonen, A. (2006). An empirical investigation of procurement trends and partnership management in FM services A Finnish survey. *International Journal of Strategic Property Management*, 10(2), 65-78.
- Ling, H. L., Shaharom, N. H., Marzukhi, M. A., & Marzuki, S. Z. S. (2018). Healthy lifestyle of urban residents. Case Study: Sri Pahang Public Housing, Bangsar, Kuala Lumpur, Malaysia. *Planning Malaysia*, 16(3), 1-11.
- Mack, N., Woodsong, C., MacQueen, K. M., Guest, G., & Namey, E. (2005). *Qualitative research methods: A data collector's field guide*. USA: Family Health International.
- Martin, I. (2004). The social impact of Euro-Mediterranean free trade areas: A first approach with special reference to the case of Morocco. *Mediterranean Politics*, 9(3), 422-458.
- Noor, M. N. M., & Pitt, M. (2009). A critical review on innovation in facilities management service delivery. *Facilities*, 27(5), 211-228.
- Nutt, B. (1993). The strategic brief. Facilities, 11(9), 28-32.

- Oyedele, L. (2013). Avoiding performance failure payment deductions in PFI/PPP projects: Model of critical success factors. *Journal of Performance of Constructed Facilities*, 27(3), 283-294.
- Robinson, H. S., & Scott, J. (2009). Service delivery and performance monitoring in PFI/PPP projects. *Construction Management and Economics*, 27(2), 181-197.
- Sarshar, M. (2006). Improving service delivery in FM: Case study of a UK hospital facilities directorate. *Journal of Facilities Management*, 4(4), 271-285.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Essex: Pearson Education Limited.
- Shyjith, K., Ilangkumaran, M., & Kumanan, S. (2008). Multi-criteria decision-making approach to evaluate optimum maintenance strategy in textile industry. *Journal of Quality in Maintenance Engineering*, 14(4), 375-386.
- Suri, H. (2011). Purposeful sampling in qualitative research synthesis. *Qualitative Research Journal*, 11(2), 63-75.
- Takim, R., Abdul-Rahman, R., Ismail, K., & Egbu, C. O. (2008). The acceptability of private finance initiative (PFI) scheme in Malaysia. *Asian Social Science*, *4*(12), 71.
- Talamo, C., & Bonanomi, M. (2015). *Knowledge management and information tools for building maintenance and facility management*. Cham: Springer International Publishing.
- Then, D. S.-S. (1999). An integrated resource management view of facilities management. *Facilities*, 17(12/13), 462-469.
- Ventovuori, T., Lehtonen, T., & Miettinen, I. (2004, December). Selecting relationship type in facility services. *12th CIBW70 International Symposium Facilities Management and Asset Maintenance*. December 7-8, 2004, Hong Kong.
- Wang, N. (2010). Risk allocation in the operational stage of private finance initiative projects. *Journal of Performance of Constructed Facilities*, 25(6), 598-605.
- Wiggins, J. M. (2010). Facilities Manager's Desk Reference. Hoboken: John Wiley & Sons.

Received: 28th October 2018. Accepted: 1st March 2019