## Facilities

Provision of facilities management services in Sri Lankan commercial
organisations: Is in-house involvement necessary?
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# Provision of facilities management services in Sri Lankan commercial organisations
## Is in-house involvement necessary?

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## Abstract

**Purpose** – The purpose of this paper is to explore sourcing strategies for facilities management services using core-competency theory of outsourcing. The aim is to develop a screening framework for deciding the suitability of outsourcing versus in-house delivery for these services based on three levels of managerial functions prevalent in a typical commercial organization.

**Design/methodology/approach** – A questionnaire survey was administered for facilities managers in Sri Lanka to investigate the relative importance of these managerial functions for facilities management services and obtain their opinions on the best delivery mode. The managerial functions were derived from a literature review and verified using three semi-structured interviews prior to the questionnaire survey design.

**Findings** – The findings showed that facilities management services that are aligned to strategic functions are suitable for in-house delivery, while those that are aligned to tactical and operational functions for outsourcing.

**Research limitations/implications** – Further studies should be conducted and extended to other types of organizations beyond commercial ones. Secondly, the quantitative study employed a smaller sample ($n = 40$), and the survey items were based on the review of literature which was verified using a very small number of interviews ($n = 3$).

**Practical implications** – The proposed framework can be utilized when choosing the best facilities management approach for commercial organizations in developing countries such as Sri Lanka.

**Originality/value** – This study contributes to the body of knowledge on the subject of facilities management by exploring the context in Sri Lankan which has not previously been done.

**Keywords** Outsourcing, Sri Lanka, Facility management, Commercial organizations, In-house, Screening framework

**Paper type** Research paper

## Introduction

Facilities management (FM) is a relatively new and rapidly evolving profession (Barrett and Baldry, 2009). The International Facility Management Association defined FM encompassing many disciplines to ensure proper functioning of the built environment by integrating people, place, process and technology (IFMA, 2014). FM services are increasingly being outsourced to achieve better efficiency and cost effectiveness (Jiang *et al.*, 2006). *According to Deloitte's (2014) global outsourcing and insourcing survey, Real Estate & Facilities Management (RE&FM) has been highlighted as a future growth sector for outsourcing, with asset and lease management services to be having the highest growth potential within the sector (Deloitte, 2014).* To provide FM services in-house or through an outsourced provider is a major and complex decision for an organization (Assaf *et al.*, 2011). The main determinants of outsourcing according to Ikediashi *et al.* (2014) are to improve a company's focus, cost transparency, stakeholders' satisfaction, cycle times, competencies, quality of service, flexibility and share risks with the outsourced partner. The main determinants of in-house provision are control over cost, quality and response time of a service and loyalty to management (Cotts *et al.*, 2009).

While several studies have dealt with sourcing strategies, the majority have considered FM as comprising an organizations' non-core building and property functions. Based on "core-competency" theory of outsourcing, all non-core activities are better outsourced to make room for efficient delivery of the core business of an organization. Ikediashi *et al.* (2014) concluded that the most compelling reason for outsourcing was to improve a company's focus on its core business activities with an approval rating of 87.8 per cent. This finding was consistent with past studies that show most organizations prefer to outsource all of their non-core activities while *keeping only* core activities to *be performed* in-house (Ghodeswar and Vaidyanathan, 2008; Kroes and Ghosh, 2010; Yang *et al.*, 2012). With the increasing recognition of FM's role, organizations have embraced many new spheres that are no longer non-core in nature. Therefore, brushing aside all FM functions as non-core and outsourcing them in one go will be detrimental to organizational productivity and profitability. We argue that the notion of considering FM as an all-encompassing non-core activity needs to be changed in the face of sourcing decisions. However, there is a clear gap in the literature that mainly considered FM as non-core and focused mainly on cost and efficiency drivers of sourcing decisions (Natukunda *et al.*, 2013). More studies are needed to dissect FM on functional lines so that its relevance to outsourcing can be discussed.

We use "core-competency" theory of outsourcing to evaluate strategic, tactical and operational functions of FM to develop a screening tool that could be used in sourcing decision-making. The findings are expected to shed some light on future sourcing decisions of FM services and the need to direct future studies on the emerging prominence of FM as a "board room" rather than "boiler room" activity. The study was carried out in Sri Lanka, a fast-growing developing country which recognizes its commercial sector as the engine of growth. While FM is being increasingly accepted in the board rooms of these commercial organizations, little has been researched in the area of FM sourcing strategies. Predominantly, there is no evidence for such decision-making criteria or framework for choosing between outsourcing and in-house approach in meeting their FM needs. Therefore, targeting Sri Lanka as a case study will make the broader objectives of this study possible, namely:

- prioritizing criteria underpinning the factors influencing FM services in Sri Lanka;
- selecting the best delivery options in terms of their value-adding capabilities to the organization; and
- preparing a conceptual framework to evaluate the suitability of a delivery mode for FM services.

## Literature review

The decision to outsource activities of an organization is dealt with different theoretical perspectives and the following are the most prominent:

- core-competency theory,
- resource-based theory,
- resource-dependent theory,
- transaction cost theory, and
- agency cost theory.

Core-competency theory is based on the premise that only the core competencies needed for an organization should be kept in-house, while others could be outsourced. The rationale is to focus more on core competencies and their development, while other hindrances should be kept away from in-house staff (Arnold, 2000; Mudambi and Tallman, 2010; Wu, 2013). Resource-based theory looks for cost-effective resources from outside that could be plugged into current operations to obtain the best level of productivity in service delivery (Espino-Rodríguez and Padrón-Robaina, 2005; McIvor, 2009). Resource-dependent theory, on the other hand, postulates outsourcing as a means of procuring scarce resources that are not available in-house and maintaining these resources for the long-term survival of an organization (Caniëls and Roeleveld, 2009). Transaction cost theory is based on relative cost of outsourcing against in-house development based on the optimum production and transaction costs. It considers asset specificity, uncertainty in the environment and frequency of transactions in making a decision whether to outsource or procure in-house (Alaghehband et al., 2011; Yang et al., 2012). Agency cost theory expands on transaction cost theory to include risks to the organization and the supplier (Logan, 2000).

The core-competency theory provides a good basis for FM services outsourcing decisions, as they are mainly considered non-core. Core competencies represent the collective learning of the organization, mainly for coordinating production and integration of diverse technology (Dekkers, 2000). By stripping non-core activities from in-house staff, it is expected that they have more time and energy to develop core competencies that are the basis for the organizations' competitive advantage. Arnold (2000) describes an organization's competency as comprising four levels: company-core activities; core-close activities; core-distinct activities; and disposable activities. Company-core activities are connected with a company's existence. Core-close activities are directly linked with core activities, while core-distinct are supporting activities. Disposable activities are outside the core activities of a company. According to Arnold (2000, p. 27) "activities with no competitive contribution at all are typical outsourcing candidates. With a higher degree of contribution they move step by step from

outsourcing to insourcing". FM services of a typical commercial organization range from catering, cleaning, waste disposal, security, hospitality, procurement, human resources, finance, estate management to business strategy (Ancarani and Capaldo, 2005). While these services are not "company-core" activities according to Arnold's model (Arnold, 2000), all of them are not "disposable" either. Some of them could be "core-distinct" and even "core-close" activities. Thus, Arnold's model (Arnold, 2000) is a valuable tool for eradicating the stereotyping of FM services as "disposable" activities. *This observation is supported by the Deloitte's survey which reports that only 35 per cent of companies use outsourcing to develop and manage real estate portfolio and 13 per cent to manage assets/lease. In addition, design and construction and document services are the most commonly outsourced services in the RE&FM sector (Deloitte, 2014)*

From a process perspective, Kamarazaly (2007) classified FM functions into three groups: strategic, tactical and operational. This classification aligns closely with the new European Standard in Facilities Management (CEN/TC 348, 2011). Katchamart (2013) concludes that the strategic, tactical and operational hierarchy is the most appropriate delivery approach for FM services in a study of value-added position using a product-process matrix. Similarly, Khazraei and Deuse (2011) use the same hierarchy to explain the maintenance management functions of an organization. Gaddie (2003) proposes the three levels to be simultaneously coordinated to have an effective enterprise program management that connects strategic planning to services delivery. The differences between these three levels are very clear according to Jensen (2011, p. 86):

> […] the strategic level deals with the long-term objectives and the tactical level deals with the medium-term objectives of the organization, while the operational level creates the required environment for the user on a day-to-day basis.

Johnson *et al.* (2008) perceived strategic FM as dealing with the complexities of ambiguous, non-routine situations which can affect the direction and future of the whole organization. Alexander (1996) revealed that strategic FM focuses on the receptiveness of the facility to the organization and business challenges; it concentrates on the complementary nature of facilities and corporate objectives. Further, it has direct communication with higher management or the senior personnel at corporate decision-making level to ensure that facilities meet clearly defined business objectives (Barrett, 2000). Alexander (1996) argues that the strategic FM role involves formulating and communicating a facilities policy, identifying business needs and user requirements and negotiating service-level agreements. Tactical FM functions ensure operational functions are done in ways that support the core business functions of an organization. Several authors emphasized that the tactical role of FM generally comprises scope management, managing facility communications plan, ensuring and monitoring the activities that comply with codes, regulations, policies and standards (Alexander, 1996; Then, 1999; Chotipanich, 2006). The scope of operational FM comprises day-to-day or routine support-functions of the workplace (Then, 1999). Tasks at this level have a comparatively short-term scope and involve specific processes which are simple and direct (Patanapiradej, 2012). Furthermore, Then (1999) revealed that effective operational functions focus on asset management and provide an enabling environment for offering superior service quality in support of day-to-day operations. Figure 1 summarizes the characteristics of FM functions at these three levels.

**Figure 1.**
Characteristics of FM functions at different levels
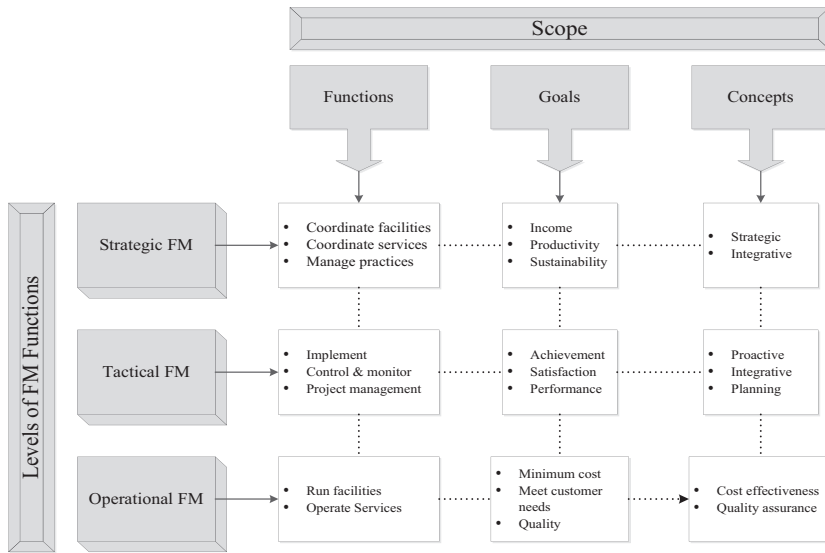


**Source:** Adapted from Patanapiradej (2012)

Jensen (2011) divided FM functions into two, these being, strategic and non-strategic support-functions, and only the non-strategic support-functions were considered suitable for delivery by external providers. It reviewed the relationship between core business and the support services and found that only the strategic support services are considered to be generally aligned with the business orientation, while the non-strategic support services are oriented with specific customer needs. Therefore, Jensen (2011) proposes a coalition between strategic FM functions and the core business of an organization. However, it is not clear whether this coalition can still happen with the outsourced partner. It is very unlikely that the outsourced partner will align with the core business of an organization but is very possible for them to have a very good orientation with specific customer needs. Further research is required on how the proposed coalition will function between the core business and support-functions.

Using a contingency approach, Ancarani and Capaldo (2005) developed a decision model for FM service procurement in local authorities. Political involvement, market complexity, service complexity and operational advantages have been taken as factors influencing the decision whether to use in-house delivery or outsourcing in their model. According to the results of Ancarani and Capaldo (2005), in-house provision is required for medium- and high-complexity services with a strong political involvement but less market complexity in terms of cost and quality considerations. This observation resonates well with most previous studies that have concentrated on factors such as cost and quality of service delivery to justify outsourcing. In contrast, Ikediashi et al. (2014) provide empirical evidence on outsourcing risks in their survey of 61 FM professionals from Nigeria and found poor quality of service to be the most significant risk factor among many others in outsourced service delivery. Therefore, we argue that

outsourcing is not a panacea for FM service delivery and some sort of in-house involvement is necessary for efficient and effective service provision.

## Research methods

The study design used for this research developed in two stages:

(1) exploratory survey based on literature review and interviews; and

(2) a questionnaire survey.

The first stage was devoted to an extensive literature review on FM sourcing strategies. The aim was to provide different FM service delivery options and an introduction to the hierarchy of functional levels in a typical commercial organization. As observed by Forza (2002, p. 152), this kind of survey (exploratory) is carried out using data collected in previous studies. The conceptual model described in Section 4 is an outcome of the literature review and forms the basis of the questionnaire survey. To operationalize the model's concepts of strategic, tactical and operational functions, some of the factors used by Kamarazaly (2007) have been used. It should be noted that Kamarazaly (2007) used 37 factors to represent strategic, property development/project management, operational and general service FM functions in his study of New Zealand and Australian organizations.

To verify their applicability in a developing country such as Sri Lanka, three interviews with very well-experienced facilities managers were conducted. The objective is to let the experts select the relevant factors based on their own experience and categorize them under strategic, tactical and operational FM functions that could be used in the second stage of the research. This approach is justified because it takes on an exploratory and rigorous examination of real-life contexts and the facilities managers could relate these factors to their own experiences (Du Toit and Mouton, 2013). For the interviewees to respond to questions freely and discuss the applicability of these factors, the study adopted a semi-structured interview approach that has been suggested by Mitra and Tan (2012). Each interview lasted approximately 45 minutes to 1 hour, and the interviewees were selected based on snowball sampling technique (Noy, 2008). This led to a sample size of only three interviewees who were keen to express their opinions. As highlighted by Mason (2010), the size of the sample in qualitative research becomes irrelevant because of the fact that the value of the study is based on the quality of data. The profile of interviewees is shown in Table I.

The interviewees were highly specialized and experienced professionals based in Colombo, the capital city of Sri Lanka. An expert in FM working for a multi-national organization was selected for the pilot interview to test whether the interview guide prepared from the literature review covered all relevant factors. This interviewee provided the reference for the next interview and so on. Analysis of interview data was based on manual coding of interview transcripts, and the results were fed into the next stage of the research.

The second stage examined the relevance of the identified FM functions and the most suitable delivery mode for each of them through the views of a randomly selected group of FM practitioners in Sri Lanka (Forza, 2002, p. 155). To execute this task, a robust questionnaire was developed based on FM functions identified at the first stage of this research. The outcome of the survey is analyzed through descriptive statistics according to Doloi et al. (2012) by investigating the trends of perceptions based on first-hand

experiences of these FM practitioners. To test the significance of the results, Mann–Whitney U-test was used. Mann–Whitney U-test is a non-parametric test of the null hypothesis that two populations are the same against an alternative hypothesis that a particular population tends to have significantly different values than the other. The questionnaire was divided into four sections as follows:

(1) *Section 1*: General demographics of the respondents.

(2) *Section 2*: This section examines the 12 strategic FM functions identified through the literature and validated by the interviews at the first stage of this research. First, it evaluates their relative importance for an organization using a five-point Likert scale where $1 =$ very low; $2 =$ low; $3 =$ medium; $4 =$ high; and $5 =$ very high. Second, respondents were asked to rate their opinion on the suitability of in-house and outsourcing delivery modes for these functions using a similar scale from $1 =$ very low to $5 =$ very high.

(3) *Section 3*: Using a similar methodology, this section examines the eight tactical FM functions to evaluate their relative importance and the most suitable delivery mode for each.

(4) *Section 4:* This section evaluates the 12 operational FM functions using the same methodology above.

The population frame for this research comprised FM professionals in Colombo, Sri Lankan. There are numerous designations used to specify the personnel who play an FM role in Sri Lankan commercial buildings (Mythiley, 2010). Forty-three questionnaires were issued to these professionals out of whom 40 responded. This represented a response rate of more than 93 per cent overall which was achieved as a result of several rounds of follow-up.

## Conceptual model and interview results

Deciding on how to procure an FM service through in-house or outsourcing is an internal decision for an organization and is based on necessary facts. However, in practice, most of the organizations rely solely on cost and quality factors to make this decision (Cotts, 1999). Hence, choosing an appropriate FM approach, especially for commercial buildings, becomes very important, as they provide a significant contribution to the economy. Further, commercial buildings obviously have a variety of organizational, structural and operational elements compared to other facilities. Therefore, it is commonly accepted that to manage this complex environment, proper selection of FM services is crucial. To increase the concentration of efforts on the core business, senior or executive management should evaluate the full array of options for procuring FM

| Interviewee | Position | Organization | Professional experience (years) |
| --- | --- | --- | --- |
| A | Facilities Manager | Multi-national company (import and export trade) | 18 |
| B | Maintenance Manager | Bank | 12 |
| C | Facilities Manager | Resort | 25 |

**Table I.**
Interviewee profile

services and select the most effective sourcing method which is best suited to the organization.

However, past studies have seldom looked at a framework or guideline to choose the best FM delivery mode for commercial buildings. Moreover, very little has been done on developing countries such as Sri Lanka where the need of FM has become so urgent, especially for commercial buildings. In that context, combining Arnold's model (Arnold, 2000) with Kamarazaly's model (Kamarazaly, 2007) provides an opportunity to evaluate the suitability of outsourcing against in-house provision of FM services based on core-competency theory. This concept revolves around dividing FM service functions of an organization into three levels and looking at them through the lenses of the three non-core competencies as given in Figure 2.

To verify the suitability of this model for the Sri Lankan context, three interviews were conducted as described in Section 3. The results of these interviews are briefly examined below.

*Sourcing strategies*
Interviewees were asked "what is the general practice in regard to FM service provision in their organization". All three interviewees admitted that they have an in-house department handling their FM activities under the supervision of a qualified FM practitioner. That unit is responsible for maintaining the overall facility. In addition, they outsource some services, and examples cited were the janitorial services, cleaning, catering and building maintenance activities.

*Determinants of outsourcing*
When asked why they resort to outsourcing, there was a general agreement on determinants such as better service quality, lower costs and sometimes to compensate for non-availability of internal skills. Interviewee B highlighted the third aspect: "we believe there is no point incurring higher costs employing and spending huge amount of money putting the internal staff on specialized training – it is not cost effective". Interviewee A, commenting on the expectations of the FM department, highlighted the following: where "management is always looking to attain the competitive advantages in their core business and always
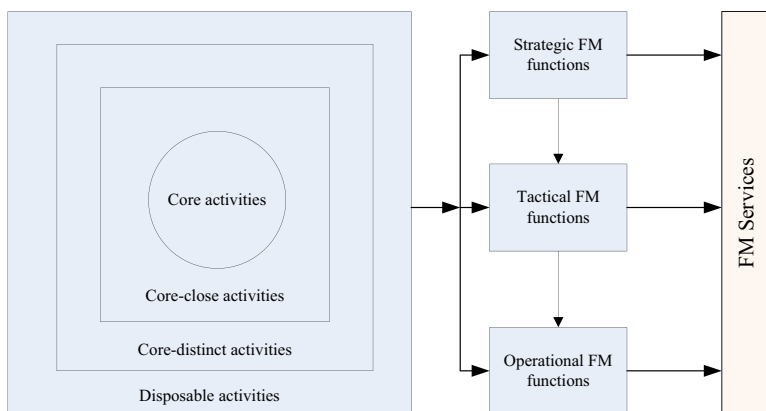


**Figure 2.**
The conceptual
model

expect our services at a reasonable cost. So it is obvious that we provide our service at a reasonable cost either through the own staff or by an outsourced company".

*Risks of outsourcing*
The interviewees were asked "what risks do you encounter during outsourcing of facilities management services?" The responses were unanimous on the potential risk factors – less control of service delivery which led to interruption of services, poor quality of service, not adhering to health and safety guidelines, not following government regulations such as labour, wages and insurance. Interviewee B further commented on the first aspect: "in my experience, when we perform within in-house there is no confusion on controlling and monitoring capabilities of our team. But in outsourcing it is a very serious challenge". Interviewee C highlighted the issue of quality, stating, "We have faced some quality issue on our air conditioning maintenance in resorts. Most of the time quality of service of the outsourced company is not up to standards".

*Advantages of in-house delivery*
When asked what the advantages of in-house delivery are the most prominent were flexibility, very high control over service delivery, fewer third-party claims and disputes and no security issues. Interviewee A justified the existence of an FM unit in his organization as follows: "In my opinion, maintaining an in-house department provides flexibility and higher control over the assets of an organisation". Interviewee B confirmed his earlier view: "As I mentioned earlier, no confusion with controlling and monitoring facilities management functions is the most significant advantage".

*Risks of in-house delivery*
When asked to name the risks of in-house service delivery, the three interviewees listed the following as the most common: getting a suitable person for a particular job, strikes and union action, difficulty in motivating people, less productivity, absenteeism and justification of the additional overhead costs of employing a full-time staff member. Interviewee B referred to his bank seeing human resources issues as the most critical in his statement:

> It takes a long time to get a suitable person to a particular job and sometimes we face staff issues which HR also has a say - and these can become very difficult issues to manage.

*Decision tool*
When asked "Do you follow any decision criteria or framework when choosing between in-house and outsourced service delivery?" all three interviewees admitted that they do not have such criteria or tool. According to interviewee A:

> Normally the sourcing decision process is handled by me with the approval of senior managers. Sometime we carry out a financial assessment, a comparison of the life cycle cost. But the decisions are generally based on our own experience.

Interviewee C highlighted the inherent weakness of professional judgment as:

> Sometimes the decision can go wrong and create serious problems to the organization. Last year we outsourced the maintenance function of the entire resort to an external provider. Due to some issues, we decided to fall back to in-house delivery and it took more than a month to get back to the previous stage.

*Views on the conceptual model.* The interviewees were in general agreement that the model is suitable for Sri Lankan with some modifications to the factors identified in the literature review. They also grouped these functions under strategic, tactical and operational, and the complete listing is given in Tables II-IV of Section 5. Thus, the questionnaire survey was entirely based on these factors and the groupings that emerged as a general consensus among the interviewees.

### Results of the questionnaire survey

*Demographic characteristics*

The profile of the questionnaire survey sample according to individual characteristics (designation and level of experience) is reported in Table V.

As can be seen from Table V, the majority (30.0 per cent) of respondents were facilities managers followed by maintenance managers (25.0 per cent).Table V also shows that the majority (35, i.e. 87.7 per cent) of the respondents were highly experienced (more than five years) with 16 (40 per cent) having more than 15 years' experience. It shows that the respondents are competent enough to provide an objective assessment of FM service delivery options in their organizations.

*Strategic facilities management functions*

The respondents rated the 12 relevant strategic FM functions on a 1-5 Likert scale for their importance to the organization concerned and the suitability of the two

| | | | | Suitability | |
| No. | Strategic FM function | $M_{RI}$ | $M_{In}$ | $M_{Out}$ | $p^a$ |
| --- | --- | --- | --- | --- | --- |
| SF1 | Developing facilities to meet business objectives | 5 | 5 | 3 | 0.000 |
| SF2 | Providing strategic assistance based on knowledge of client's business | 5 | 5 | 1 | 0.000 |
| SF3 | Creating service partnerships and negotiating service-level agreements | 5 | 5 | 2 | 0.000 |
| SF4 | Identifying business requirements and user needs | 5 | 5 | 2 | 0.000 |
| SF5 | Ensuring that a coherent view of property is fed into the overall strategy of the organization | 5 | 4 | 2 | 0.000 |
| SF6 | Developing strategic emergency preparedness procedures | 4 | 4 | 3 | 0.002 |
| SF7 | Planning and designing for continuous improvement of service quality | 4 | 4 | 4 | 0.084 |
| SF8 | Enhancing the competitiveness of core business | 4 | 4 | 3 | 0.005 |
| SF9 | Assessing business trends and adopting strategies for change management | 4 | 4 | 4 | 0.144 |
| SF10 | Developing and implementing real estate master planning strategies | 3 | 4 | 3 | 0.607 |
| SF11 | Enhancing corporate values by formulating and communicating strategic facilities policy | 3 | 3 | 2 | 0.425 |
| SF12 | Developing effective strategic benchmarking practices for the facility | 3 | 4 | 2 | 0.907 |

**Notes:** $M_{RI}$ = median of relative importance; $M_{In}$ = median of in-house delivery; $M_{Out}$ = median of outsourced delivery; [a] based on Mann-Whitney U-test

**Table II.**
Respondents'
perceptions of
strategic FM
functions

| No. | Tactical FM function | $M_{RI}$ | $M_{In}$ | Suitability $M_{Out}$ | $p^a$ |
|---|---|---|---|---|---|
| TF1 | Establishing budgets to achieve best value over the longer term | 5 | 4 | 5 | 0.245 |
| TF2 | Scope management | 5 | 4 | 5 | 0.001 |
| TF3 | Managing dispute resolution procedures | 5 | 4 | 5 | 0.008 |
| TF4 | Ensuring effective procurement and contracting strategies | 5 | 3 | 5 | 0.000 |
| TF5 | Monitoring the integrative planning and ensuring performance satisfaction | 5 | 4 | 4 | 0.127 |
| TF6 | Developing policies, procedures and practices for the facility | 4 | 3 | 5 | 0.000 |
| TF7 | Ensuring the activities comply with codes, regulations, policies and standards | 4 | 3 | 4 | 0.000 |
| TF8 | Managing facility communications plan | 4 | 3 | 4 | 0.075 |

**Table III.**
Respondents' perceptions of tactical FM functions

**Notes:** $M_{RI}$ = median of relative importance; $M_{In}$ = median of in-house delivery; $M_{Out}$ = median of outsourced delivery; [a] based on Mann-Whitney U-test

| No. | Operational FM function | $M_{RI}$ | $M_{In}$ | Suitability $M_{Out}$ | $p^a$ |
|---|---|---|---|---|---|
| OF1 | Providing cost effectiveness and quality service delivery | 5 | 4 | 5 | 0.006 |
| OF2 | Providing excellent, safe, secure and healthy working environment | 5 | 5 | 5 | 0.633 |
| OF3 | Minimizing equipment and structural failures | 5 | 4 | 4 | 0.283 |
| OF4 | Overseeing acquisition, installation, operation, maintenance and disposition of buildings and facilities | 5 | 4 | 4 | 0.60 |
| OF5 | Improving facilities to enhance operational efficiencies | 5 | 4 | 5 | 0.004 |
| OF6 | Maintaining the operational fitness and value of the property by timely and adequate maintenance and reduction of facility deterioration and obsolescence | 5 | 4 | 4 | 0.667 |
| OF7 | Meeting the standard needs and quality of performance | 4 | 4 | 4 | 0.542 |
| OF8 | Providing service quality in support of business operations | 4 | 4 | 3 | 0.018 |
| OF9 | Inspecting facilities operations and reporting | 4 | 3 | 4 | 0.030 |
| OF10 | Establishing productive workplace and low operating and maintenance costs | 4 | 3 | 3 | 0.305 |
| OF11 | Establishing an effectual organizational structure that plans, schedules and measures work activity and productivity | 4 | 3 | 4 | 0.020 |
| OF12 | Defining all required services including interfaces | 4 | 3 | 4 | 0.005 |

**Table IV.**
Respondents' perceptions of operational FM functions

**Notes:** $M_{RI}$ = median of relative importance; $M_{In}$ = median of in-house delivery; $M_{Out}$ = median of outsourced delivery; [a] based on Mann-Whitney U-test

delivery modes as described in detail under research methods. The results of these responses are reported in Table II. The respondents placed a very high importance on SF1 to SF5 functions and a medium-level importance for SF6 to SF9 functions. SF10 to SF12 functions were not considered to be very important. It is very clear from the responses, overall, that the strategic functions were perceived to be better delivered in-house than through outsourcing. SF1 to SF5 were clearly being

| Characteristics | No. of respondents[a] | (%) | Cumulative |
|---|---|---|---|
| *Designation* | | | |
| Director general | 3 | 7.5 | 7.5 |
| Operations manager | 5 | 12.5 | 200 |
| Facilities manager | 12 | 30.0 | 50.0 |
| Maintenance engineer | 5 | 12.5 | 62.5 |
| Maintenance manager | 10 | 25.0 | 87.5 |
| Premises manager | 5 | 12.5 | 100.0 |
| *Length of experience (years)*[a] | | | |
| < 5 | 5 | 12.5 | 12.5 |
| 5-10 | 8 | 20.0 | 32.5 |
| 11-15 | 11 | 27.5 | 60.0 |
| More than 15 | 16 | 40.0 | 100.0 |

**Table V.**
Profile of study sample

**Note:** [a] The level of experience is further categorized into less experienced (< 5 years) and experienced (more than 5 years)

assessed as very suitable for in-house delivery against a marginal suitability for outsourcing with a Z value for Mann–Whitney U-test ranging from 7.466 to 5.312 ($p = 0.000$). SF6 and SF8 were also considered very strongly for in-house delivery though not as much as the former five factors with a $p$-value of 0.002 and 0.005, respectively. SF7, SF9, SF10, SF11 and SF12 did not show any significant differences in terms of preferences with a $p > 0.05$. The strongest preference for in-house delivery was for the provision of assistance based on knowledge of the core business of an organization.

*Tactical facilities management functions*
The respondents rated the eight relevant tactical FM functions similar to 5.2 above, and the resultant median values of these responses are reported in Table III. The respondents voted TF1 to TF5 as "very important" tactical functions, while the remaining three to be "important". The responses on the overall suitability of the two modes of delivery for tactical FM functions favored outsourcing with just TF5 came out as not favoring any particular mode. The respondents have discriminated between the two modes for five out of eight factors with only three, namely, TF1, TF5 and TF8 found to be not statistically significant with a $p > 0.05$. The stronger preferences for outsourcing were demonstrated for TF4, TF6 and TF7 with $p = 0.000$, which are basically making sure FM practices follow certain guidelines, practices and policies.

*Operational facilities management functions*
The respondents evaluated the 12 operational FM functions in Section 4 of the questionnaire, and the results are reported in Table IV. Six of these functions (OF1 to OF6) were rated "very important" and the other six "important". Six functions, namely, OF1, OF5, OF8, OF9, OF11 and OF12 had a statistically significant difference between the two delivery modes with a $p < 0.05$. The remaining six functions did not show statistically significant outputs with $p > 0.05$. Respondents have voted OF1, OF5, OF9,

OF11 and OF12 would be better delivered through outsourcing, while OF8 should be provided in-house. No preference is indicated for the other six functions. Therefore, overall, operational functions of an organization were considered suitable for outsourcing compared to in-house provision. The stronger preferences for outsourcing were for providing cost-effectiveness as well as quality service delivery and improving operational efficiency.

## Discussion

The results demonstrate that most of the factors considered for strategic, tactical and operational FM functions are relevant to Sri Lanka. The respondents have preferred overall the strategic functions be delivered in-house, while the tactical and operational functions to be outsourced. They have placed a very high emphasis on having in-house staff looking after facilities to meet business needs, creating service partnerships, identifying business requirements and having a coherent view based on a master plan of the property. It further strengthens the popular belief that in-house facilities managers have a significant role to play in developing and maintaining facilities to attain the organizational objectives, competitiveness and continuity. The tactical functions were thought to be better delivered through outsourcing with a particular emphasis on ensuring policies, guidelines and contracting strategies are in place for efficient service delivery. *This observation is very similar to the results of a survey conducted by CB Richard Ellis (CBRE) on the retail sector, where non-core strategy and tactical elements of their real estate portfolio were often outsourced to reduce costs and improve performance (CBRE, 2010).*

Similar to tactical functions, the operational functions were considered to be better delivered through outsourcing with a strong emphasis on improving cost, quality and operational efficiency. This is an interesting observation and could be attributed to the fact that value of operational outcomes in Sri Lankan commercial buildings is attained through lowest cost. Chotipanich (2004) and Chotipanich and Lertariyanun (2011) proposed a similar concept where operational-level success is basically determined by a service's cost effectiveness. The latter divides FM strategies into four types in which "business value strategy" looks at a long-term perspective that matches closely with the core business objectives, and hence, the strategic FM functions identified in this study. The other three strategies, namely, "workplace" focus, "performance" focus and "cost" focus closely resemble the findings of tactical and operational functions of this study.

Of the 32 factors used in this study, the presence of only 8 factors favored an in-house delivery decision. The remaining 24 factors either preferred outsourcing or were neutral. These eight factors, except one (OF8), belong to the strategic FM category. Using these seven factors with the importance shown for each, we developed a simple screening framework to assess the best delivery mode for FM services of commercial organizations. This framework is illustrated using a flowchart as given in Figure 3.

To illustrate the use of this framework, we could take "cleaning" services of a typical commercial organization as an example. If cleaning is taken through the framework, the answer to all seven questions of the flowchart would be a clear "no", and as a result, there seems to be no pressing need for this service to be delivered in-house. It is better suited as an outsourced service, and the results highlight that the cost-effectiveness of
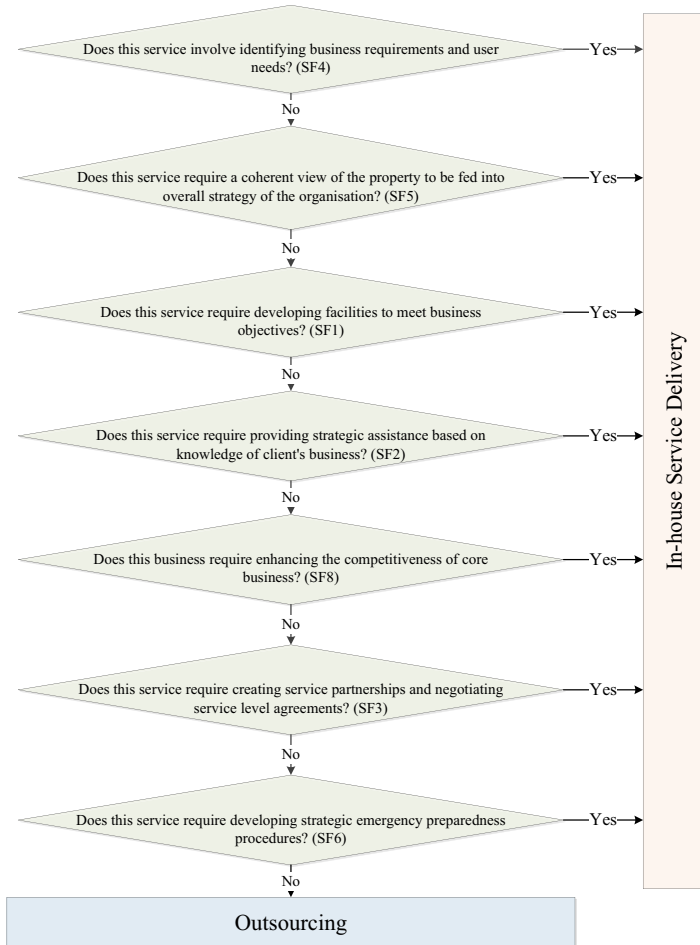
**Figure 3.**
Screening framework
for delivery mode of
FM services in
commercial
organizations

operational functions and the possibility of developing effective contracting strategies
for tactical management are very important factors. They, in fact, determine the
outsourcing capabilities of a service. As the second example, let us take "security"
services of a commercial organization and take it through the framework. The answer to
first six questions for this service provision is "no", while for the last question, a certain
"yes" because of the possibility of emergency situations arising quite often in
commercial organizations. Therefore, that outcome demands in-house involvement, as
emergency preparedness is a strategic management function that was rated to be better
delivered in-house.

## Conclusions
A decision on whether to outsource or provide in-house the FM services of an
organization is a complex decision that necessitates a holistic, multi-dimensional

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examination of many factors. There is currently no generalized approach for this. Understandably, each organization possesses a unique array of features all contributing to a different level of FM involvement. The aim of this paper was to determine the theoretical perspectives underpinning sourcing strategies relevant to FM services and to identify attributes which make a commercial organization suitable for this treatment. From the Sri Lankan case study, several attributes have been determined which assist in identifying the suitability of outsourcing versus in-house strategies. It is clear that the facilities managers of commercial organizations perceive FM services that are aligned toward strategic functions to be more suitable for in-house delivery, while those that are aligned toward tactical and operational functions should be outsourced.

A comparison of the research findings from this paper and those of previous studies indicates that there are common themes related to outsourcing decisions made regarding FM services. This lends support to the concept of a screening framework proposed in this paper which could be developed for a wider application. As the proposed conceptual screening framework is based on the interview and questionnaire survey from one case study, further research is needed to validate its applicability in other locations. Once a larger amount of evidence is collected, a practical screening tool could be developed which would be useful for facilities managers who need to make decisions as to how an FM service can be provided to optimize value for its organization.

While the study makes several contributions to FM and outsourcing theory and practice, some limitations should be noted. The first limitation relates to the cross-sectional nature of the quantitative study. Against that background, caution should be exercised in the interpretation and generalization of the results. Future studies should employ larger samples. However, by utilizing a triangulated data collection approach, some of the limitations such as enhancing the completeness and confirmation of the findings have been overcome.

The second limitation relates to the restrictions of the population sample to only Sri Lanka and the FM professionals of commercial organizations; as such, the generalization of the findings to other industries might not be possible. Future studies should be extended to other industries such as services and manufacturing. The final and third limitation relates to the small sample size ($n = 40$) for the survey and the lack of applying inferential comparative analysis such analysis of variance in comparing the suitability of outsourcing and in-house approaches in providing FM functions. Given the scarcity of empirical research studies on outsourcing and in-house approaches in the Sri Lankan FM context, this study contributes to the theory building in that area.

review-based paper. In addition, the authors carried out a detailed quantitative analysis, which was verified using a very small number of interviews ($n = 3$) as outlined in the methodology section. The authors would like to express their sincere gratitude to two anonymous reviewers and the editor of *Facilities* for their constructive and helpful comments which have enhanced the quality of earlier versions of this paper.

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