SAMPLE VIEW OF CURRENT PERFORMANCE MEASUREMENT PRACTICES IN FACILITIES MANAGEMENT

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ABSTRACT: Measurement has always been of great importance in every realm of life. It is an area which has been discussed increasingly over the past few years, and the adages "you can't manage what you can't measure" and "what gets measured gets done" and "has never been so powerful a truth" (Peters, 1987) (cited in Stone, 1996) are an all too common element of many management texts.

The above stated broad performance measurement need for management applies to management in a FM context when FM is considered as a subset of general management. A reasonable case for the need for and benefits of performance measurement systems in FM environments will be discussed in this paper together with some relevant trends in performance measurement literature which offer opportunities for identification of such systems. It further discusses the increasing trend towards performance measurement in FM organisations and shows that there is also a need for a new approach to performance measurement systems in FM organisations, by discussing problems with the existing approaches to performance measurement systems identified throughout a survey thus identifying a research need in the area of study.

Key words: Facilities management, performance measurement, survey

1. THE NEED FOR PERFORMANCE MEASUREMENT SYSTEMS IN FACILITIES MANAGEMENT

There has been a growing interest in performance measurement throughout FM. For the economic health of the organisation, the senior management at the core of the business will want to know the performance of facilities. Much work has been done to measure FM performance, but it often ignores the influences of erratic patterns of reinvestment in building fabric and components which can add as much as twenty five percent to the cost of running a building (Kincaid, 1994). Alexander (1996) identifies measurement of performance as one of "three essential issues for the effective implementation of a facilities strategy".

Many writers have mentioned that they were still struggling with the issues of what are actually the most meaningful measures and how to measure them (Hinks and McNay, 1999; Douglas, 1994; Williams, 1999). For example, Waddell, Managing Director of the Corporate FM Resources in Melbourne, noted: " that there are three key issues which FM in all parts of the world must address. These issues are: the impact of global service provision and global contracts, the future of outsourcing, and the practice of performance measurement". Findings by Varcoe (1993; 1996a; 1996b; 1998) based on opportunities of performance measurement within FM, corroborates this comment, both with respect to the growing necessity of performance measurement and the limited knowledge in this area. FM processes are pressurised and becoming more and more complex, and FM managers are at the same time required by senior managers to become more accountable for FM's contribution to business results. Thus performance measurement is becoming increasingly important both for reasons

of justification to general management and to support management and practice within the FM organisation. However, a large majority of academic articles reported that currently, within their FM group, knowledge of FM performance measurement is limited (Varcoe, 1996a, 1996b; Simpson, 1998; Then, 1996; Barrett, 1995).

According to a survey of 162 organisations in many parts of Europe (Barbuk, 1995), facilities property is still regarded as a cost factor rather than an investment. The survey revealed that:

- Property and facilities accounts for around 25% of the organisation's assets;
- Only 50% of those interviewed admitted that they have a strategic property plan;
- A minority measured the performance of their property and other related facilities;
- The majority want to reduce costs but are mainly focusing on cleaning, heating and security; and
- Property is viewed as an item for cost cutting and subject to speculation in the property market.

This study further highlights the need to measure FM performance.

The generic FM model developed by Barrett (Barrett, 1995) illustrates the range of continuing interactions which are involved in FM. It shows how an ideal FM would interact with the core business and the external environment. This generic model emphasises the need for the facilities manager to benchmark the performance of existing internal facilities services against other FM organisations, so that possible areas for improvement can again be identified. Further, a facilities manager interacts with the core to ascertain what future changes may occur to the business as a response to external influences, the aim being to synergistically balance current operations with the needs of the future. A property formulated performance measurement system will contribute to achieving the needs of such interactions.

The nature of change has driven many large organisations to develop management initiatives designed to optimise the functional value obtained from facilities (Gibson, 1994; 1995). The development of performance assessment techniques allows information for decision making to be fed to management prior to action more specifically. The assessment of facilities performance, a measurer of support provided by a facility for a specific organisation at a certain time, is applicable to the management of facilities encompassing both the investment and operational objectives of owners and occupiers.

2. CURRENT PRACTICE OF PERFORMANCE MEASUREMENT TECHNIQUES IN FACILITIES MANAGEMENT

The importance of assessing performance in FM and a general need for the assessment of FM were discussed in the above section. In recent years, a number of management tools have been found to be particularly useful in the area of FM evaluations. The provision of information decision-making is a key component of a facilities strategy, in particular literature emphasises the usefulness of facilities performance measurement techniques (Williams, 1999; Varcoe, 1996a, 1996b; Then, 1996; Hinks, 1999; Avis et al, 1993; Gibson, 1994). Worldwide literature indicates a fast developing market for techniques and services relating to the measurement of facilities performance. Appraisal techniques for assessing performance are becoming an essential part of the FM process, particularly those that provide

information that can be arrayed so as to ensure management can learn about the consequences of their actions. To this effect, this paper identifies the findings of a survey carried out devoted to identify techniques used to assess FM performance in practice.

3. A SURVEY TO OBTAIN A SAMPLE VIEW OF CURRENT PERFORMANCE MEASUREMENT PRACTICES IN FACILITIES MANAGEMENT

Numerous descriptive accounts based on case studies, consultancy experience and anecdotal evidence, detailing the various factors affecting implementation of performance measurement in FM have found their way into the literature (Varcoe, 1996a,1996b; Hinks, 1999; Stone, 1996). Beyond the intuitive appeal, the organisational improvements that accompanied the adoption of such factors lack empirical support. Thus, a survey was planned to be carried out for the purpose of initial fact-finding concerning the measurement of FM performance. The design of the questionnaire relied largely on the early work in the area (Williams, 1994; Varcoe, 1996; McFadzean, 1995). Questionnaires were distributed among a random sample representing industrialists and academics in the field.

Due to the scope of this survey, the quantitative analysis was carried out by the researcher subject to some limitations. The measures used in the analysis were either adopted from the factors pointed out in the literature or were specifically designed for this study by the researcher. Responses to all the items were scored on a five-point Likert scale measuring respondents agreements/disagreements relating to the actual practical implications in their particular FM organisation and where necessary their personal perspective with the item in question (1 = strongly disagree; 5 = strongly agree). This classification was used by the researcher to record the responses for variables in most of the parts in the analysis. The responses reporting a value of 4 or 5 for the variables are labelled “has impact/effect” (high practice), and those reporting a value of 1 or 2 are labelled “has no impact/effect” (low practice). Respondents rating with a value of 3 are discarded in the analysis in taking any specific conclusion to eliminate any ambiguity concerning their status. Statistical analyses using SPSS statistical package were conducted on relevant sections of the questionnaire database in order to identify the need in the research area, as addressed above.

Although it was not known how representative the sample analysed was for all FM organisations in the country, the survey did confirm that a range of approaches to the performance assessment of FM were being used. The survey results presented a picture of what was being employed by practising facilities mangers. A random sample of managers may well have produced a lower proportion of respondents employing performance measurement systems. Some of the findings are discussed below:

3.1 Performance measurement strategy

The respondents were asked to rate, on a scale of 1 (strongly disagree) to 5 (strongly agree) on the type of strategy used at the stage of performance measurement implementation. The responses are shown in the following Table 1:

Performance measurement implemented in FM was…...	Mean Score	S.D.	High Practice	Low Practice
- driven by the core organisation	3.87	1.60	53.3%	40.0%
- initiated on FM's own initiative	3.60	0.99	33.3%	53.3%
- as a result of customers' requests	2.87	1.64	73.3%	20.0%
- the first performance measurement initiative practiced in the organisation and it led the rest of the organisation moves towards performance measurement	3.93	1.10	53.3%	26.7%

Table 1: Performance measurement implementation strategy

The results revealed that over 50% of the adoption of performance measurement in FM was driven by the core organisation, thus it is a part of an organisational wide initiative. It is also interesting to see that more than 30% of the organisations sampled, have initiated the performance measurement programme on FM's own initiative and out of those organisations, some have led the rest of the organisation moved towards performance measurement. Yet another 73.3% listened to the customers' views and responded to the performance measurement programme.

Data collected was further subjected to correlation analysis and although some logical relationships were expected from the analysis of some variables, with the strategy they adopted this initial study had no evidence in confirming them. The negative correlation ($r = -.399$ & $p \leq .001$) between "performance measurement implementation driven by the core organisation" and "customer satisfaction drives the measurement function" suggests that force fitting of performance measurement initiatives driven by the core organisation would not ultimately result in the desired benefit of performance measurement, that is, customer satisfaction. There is another relationship, a positive one, between those who implemented performance measurement on their initiative and "customer satisfaction drives the performance measurement function", ($r = .230$ & $p \leq .05$). This simply meant that performance measurement had helped to address the important issues of the facility delivery process.

3.2 Reasons for implementing performance measurement practices in facilities management

To provide an indication of what led the facilities managers to implement performance measurement in their organisation, the respondents were asked to rate the importance on a scale of 1 (strongly disagree) to 5 (strongly agree) of four elements. The findings are given in Table 2:

Adopt performance measurement as…..	Mean Score	S.D.	High Practice	Low Practice
- a response to competitive forces	4.00	1.36	66.6%	26.7%
- a part of long term corporate vision	3.20	1.08	26.7%	46.7%
- a result of external factors	3.53	0.99	33.3%	26.7%
- a result of the realisation of the need to improve the effectiveness of FM	2.40	1.64	33.3%	53.4%

Table 2: The reasons for performance measurement adoption in facilities organisations

33.3% had indicated that external factors such as customer requests had led their approach to performance measurement. 66.6% said that there had been changes due to competitive pressures and as a part of a long-term corporate vision, but the unusual finding was that few (33.3%) had indicated that they implemented the practices with the intention of improving the effectiveness of their unit. Performance measurement in these FM organisations thus appears to be a survival strategy rather than one searching for effectiveness.

These results have prompted the wish to postulate that if performance measurement is seen to be one of the keys to survival or one to improve the competitiveness in a changing environment, it is then easier to gain acceptance from the management.

3.3 Management perception about performance measurement practices in facilities management

Benefits of performance measurement are…..	**Mean Score**	**S.D.**	**High Practice**	**Low Practice**
- Identification of and solutions to problems of facilities	4.67	0.49	66.7%	33.3%
- Overall increase in effective use of productivity	4.13	1.06	40.0%	53.4%
- Increasing the customer focus	4.40	0.63	46.7%	46.7%
- Increasing employee satisfaction	3.67	0.72	13.3%	40.0%
- Understanding the performance implications of changes dictated by budget cuts	3.73	1.10	33.3%	20.0%
- Significant cost savings throughout the service life cycle	4.00	1.20	46.7%	46.7%
- Understand the strategy communication	3.73	0.88	26.6%	60.0%

Table 3: Management perception about performance measurement practices in FM

The means given for personal perception about some performance measurement practices is consistently higher than for what they actually practice (see Table 3), which gives evidence of the scope for improvement. The scores achieved by "understanding the solutions to facilities problems" and "significant cost savings", revealed that the FM organisations had realised the vital role of performance measurement in FM.

3.4 Use of approaches/techniques to measure facilities management performance

The survey results as presented in Table 4 presented a picture of performance measurement practices within FM organisations. This random sample may have produced a lower proportion of respondent employing the measurement techniques.

Approach for the measurement of FM performance……..	*Number using the approach*	*Proportion against the total sample*
- Business excellence model (EFQM)	3	20.00%
- Best practice Benchmarking	5	33.30%
- Total quality management	1	6.67%
- Customer satisfaction surveys	10	66.67%
- Post-occupancy evaluation	6	40.00%
- Evaluate return on funds employed	-	-
- Through observe of complains	7	46.67%
- Employee indexes	-	-
- Measurement against service level agreement	1	6.67%
- No method used	1	6.67%
- Any other method	-	-

Table 4: Use of approaches/techniques for the measurement of FM performance

3.5 Lack of acceptance of the performance measurement process in the part of facilities managers

Through their experience the respondents were asked to rate on a scale of 1 (strongly disagree) to 5 (strongly agree), the importance of a number of issues which are typical of the reasons why FM organisations have a lack of acceptance of performance measurement practices (Table 5):

Lack of acceptance is because of…….	*Mean Score*	*S.D.*	*High Practice*	*Low Practice*
- The failure to provide a suitable definition for performance evaluation, applicable for FM	4.27	0.96	60.0%	26.7%
- There is no systematic attempt and/or measurement issues to empirically investigate the relationship among the FM practices and the core business	4.47	0.74	60.0%	26.7%
- There is no single theoretical model representing performance issues within FM	4.27	1.03	66.7%	13.3%
- The difficulty in accepting the premise that things can be further improved based on performance measurement outcomes	3.87	0.83	26.7%	53.3%
-The extent of management commitment is poor	3.87	0.83	26.7%	53.3%

Table 5: Lack of acceptance of performance measurement in FM

Encouragingly, other than the more commonly held issues, the data reflected a fundamental disagreement about the general view of the literature that “many reasons exists for the lack of acceptance of the performance measurement process” (Neely, 1999), “it is often difficult for

facilities managers to accept performance measurement and integrate it into their daily work" (Varcoe, 1996a).

Establishing objective measures of performance was given the highest ranking and supports the view mentioned in FM performance measurement literature that it is an unclear issue for many FM organisations. Therefore, from this view, it is assumed that this is the most complex, difficult and elusive aspect of performance measurement, which hinders its effectiveness in FM organisations.

4. SURVEY ASSOCIATED INTERVIEWS

In order to glean some further information, the researcher had discussions with senior FM practitioners at a series of separate meetings, trying to analyse the determinants of performance measurement implementation in FM, as proposed by Varcoe (1996a) in the context of FM organisations. Another purpose of this exercise carried out by the researcher was to test the interviewing method for her future work, as well as to increase the understanding of what exactly had been done in practice on performance measurement issues in FM organisations. Also this ultimately helped to uncover the type of information that was required to carry out the more comprehensive study at the next phase of research not covered within this paper. Interviewees were selected through the contacts of the researcher and of other academic colleagues, with a known interest in the subject. Discussions were conducted following a flexible set of questions, which were varied or extended at the time of interviewing, to provide a more detailed view on the matter investigated. The discussions are reported in summary beneath.

Some interviewees reported that their core businesses wanted to be viewed by the world outside as "quality" businesses. Facilities managers who use EFQM culture followed the leadership of the senior managers from their core businesses in their use of total quality management as a measurement tool. On the negative side, some managers reported that the total quality management approach consumed a lot of resources for performance reviews of various kinds.

According to Table 5, it is apparent that there is a strong need to identify performance measurement mechanism within FM. According to Table 5, it is emphasised that there is such a need, even though there are current practices among the facilities managers, as per Table 4.

Further, the interviews confirmed that the survey questionnaire had worked fairly well by capturing the industry practice relating to performance measurement issues.

5. REVIEW OF EXISTING TECHNIQUES

The use of a broad range of approaches to the management of performance in FM was confirmed by the survey and the interviews carried out, as described above. It was further confirmed that appraisal techniques for assessing performance should become an essential part of the FM process, particularly those that provide information that can be arrayed so as to ensure management can learn about the consequences of their actions.

Those using the cost benchmarking techniques appeared fairly confident that they were using the best approach. Their opinion was founded on rational consideration of the technique, rather than any evidence of comparative performance of approaches to performance

measurement. None of these interviewees had the authority to reject the technique and were interested to see evidence concerning the efficiency of the system. Those personnel, who were using approaches other than benchmarking techniques, appeared less certain that they had the best method for performance measurement but they wondered whether there might be a better approach to this task. Several interviewees described a need to undertake their own measures of performance, especially to obtain an assessment of customer satisfaction. One interviewee responded that he had no method of assessing the performance of facilities services he provided. Interviewees all expressed a wish for methodologies to provide valid measurements of FM service quality, irrespective of whether it is FM inputs, processes or outputs. An interest has been found, therefore, in the investigation of the best approach to managing performance of FM.

One of the major difficulties encountered by a facilities manager in the sphere of performance measurement is his/her understanding of this topic. There is a great deal of confusion about the reasons for performance indices and performance measurement services. It is frustrating that the FM market has been slow to take on board the concept of performance measurement. There is frequent comment that there are too many performance indices (especially in terms of cost) in the FM market. Therefore, a more positive and preferable stance in respect of performance measurement in FM is needed and the evaluation process should stand up to scrutiny and allow the measurement of FM performance of individual services as well as aggregating this information into indices and integrated performance measurement "universes". This should allow assessment of FM performance covering various perspectives of FM together with FM's relationship to the core organisation, although to date the key problems have been those of performance measurement techniques' availability.

Simpson (1998) identifies the following types of FM performance measurement systems which might be used at different levels of the FM organisation:

- Whole FM function;
- Individual support service; and
- Part of individual support services

Interviewees were asked whether they would find assessments at any or all these three levels useful to them and all confirmed that they would be interested in obtaining assessments at all three levels. Such systems would clearly be popular within the FM community as a means of obtaining valid measurements of FM performance at different levels. Interviewees further wanted a way of measuring their customers' perceptions of FM performance; they wanted to know what their customers' thoughts are. However, the interviewees also acknowledged that they might have to balance the customers' perception with what was affordable for the core business, when considering resource allocation. The possibility of measuring innovation issues within FM was raised and the interviewees were attracted to this idea. They were clear that they needed to know how they perform in terms of implementing their future plans. Some of the interviewees further confirmed, even though there are existing performance measurement instruments to assess the performance of the FM output in certain circumstances, there is room to develop measurement instruments to measure the output of the entire process, that is, input, process and output.

6 CONCLUSION

Appropriate measurement procedures can provide major benefits. When applying current measurement principles applicable to FM environments, several problems have to be faced:

- It is difficult to isolate FM's contribution to organisational performance from the other business activities because it is always the intertwined efforts that eventually result in outcomes in the market place;
- The problem of matching specific FM inputs and intermediate outputs with final outputs;
- A third major measurement problem is the time lag between FM efforts and their payoffs within an organisational setting;
- Besides problems with the selection of performance metrics, there is also the problem of determining the right norms to compare with; and
- Another issue, which is already mentioned in the previous section, is the acceptance of performance measurement in FM.

Therefore, it is argued in this research paper that performance measurement techniques available in general management literature haven't been fully transformed into FM literature, emphasising the research need in performance measurement in FM. The research carried out by McFadzean (1995) proposed that a clear methodology for linking FM to the core business is required to resolve the above current problems experienced by many of today's FM organisations in measuring facilities performance and to develop knowledge about the links between FM and the business in research terms. The process should include links to the core business at a corporate level.

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