Performance measurement and management in facilities management

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Guest Editorial

About the Guest Editors:

Professor Dilanthi Amaratunga is at the School of the Built Environment at the University of Salford, UK and leads research in several fields including performance management, facilities management and capacity building in the built environment, with a particular interest in disaster management. She has nearly 200 published papers, and has successfully managed several research projects. She is jointly leading an international collaborative project EURASIA: European and Asian Infrastructure Advantage which looks at disaster management strategies in Europe and Asia. Professor Amaratunga is also the Coordinator of CIB TG53, which aims to improve the availability of skilled researchers in building education and research through the development of researchers' capacity to produce, transfer and utilise knowledge. Her other research interests are: gender, disasters and construction; and research informed teaching.

Dr. Udayangani Kulatunga is a lecturer at the School of the Built Environment at the University of Salford, UK. She has teaching and research experience both in UK and in Sri Lanka. Dr. Kulatunga's research interests are performance measurement, research and development, construction waste management, disaster risk reduction, and construction procurement. Her research output is demonstrated by the number of publications done in both journals and international conferences. Currently, she is involved with a collaborative research project on modernising higher education under ERASMUS multilateral projects.

Dr. Champika Liyanage is a lecturer at the School of Built and Natural Environment at University of Central Lancashire, UK. She has also worked as a lecturer in Quantity Surveying in University of Moratuwa, Sri Lanka. Champika has a PhD in facilities management and her research interests include facilities management, infection control, performance measurement and management, sustainable construction and Public Private Partnerships (PPPs). Champika has published several journal and conferences papers and has also won several awards for her work including the best student award for her PhD research from the National Health Service, Scotland in 2004 (Facilities and Environmental awards). She has also won the best paper award during the Second Scottish Conference for Post graduate Researchers of the Built Environment in 2005.

Performance Measurement and Management in Facilities Management

Facilities management operates on the premises that the efficiency of any organisation is linked to the physical environment in which it operates and that the environment can be improved to increase its efficiency. This has increasingly become an important function of the built environment. Thus, Facilities management has emerged rapidly as a distinct area of business within varieties of businesses/organisations.

In the past FM has tended to be regarded as a mere support service but now its stance has changed dramatically from a non-core business function to a strategic business function within organisations. FM has become responsible for co-ordinating all efforts related to planning, designing and managing buildings and their systems, equipment and furniture to enhance the organisation's ability to compete successfully in a rapidly changing world.

Therefore, FM in any organisation includes a myriad of services. These can be divided mainly in two categories; hard FM and soft FM. Hard FM relates to management and maintenance of property and other physical assets, while soft FM includes the management of support services. The built environment, including infrastructure facilities such as estate and property, indoor air, structure and fabric, water supply, electricity and telecommunication systems come under the first category (hard FM); and catering, cleaning, waste management, security, and laundry describes the latter (soft FM).

Considering the changes that had occurred and the inclusion of many services to the provision of FM since the 1980s illustrates that FM has achieved a rapid growth and recognition, as a separate business ector and also as an academic discipline. . However, despite these achievements, FM still suffers from lack of maturity in some of its core areas. It is argued that this lack of maturity, combined with an inadequate existing knowledge base, has resulted in a marked lack of secure methods and techniques for improving best practice FM performance (Kiang, 1999), thus provides a good opportunity for research in the field of FM to improve FM performance.

FM performance is only of relevance to an organisation if it is viewed within the context of the overall achievement and success of the core business. The criteria by which the performance of the organisation is judged by its stakeholders are ultimately the criteria by which the contribution of FM will be judged. The emphasis on the importance of performance measurement and management is growing rapidly as it leads the way to continuous improvements of FM in organisations. It has gone through several generations, from pure financial based to the financial, non-financial integration and from organisational specific to the supply chain performance measurement. An effective performance measurement and management model provides a framework that links the array of initiatives that make up an agenda of an organisation and provides a coherent platform for organisations to drive improvement.

Performance measurement and management provides the primary evaluation and planning tool for FM. Within that it identifies the performance indicators that are meaningful to FM and core business. It also provides measures for those indicators and enables projective planning and benchmarking to be undertaken. Performance measurement play a number of roles in FM: reporting FM's success or failure; influencing the behaviour of the parties concerned; linking the FM (and overall organisational) strategy with the employee's occupation; monitoring the progress and measurement of performance; managing success or failure; and learning and continuous improvement. However, making the transition from performance measurement to performance management is also vital as the decisions taken based on the results of performance measurement could lead FM in taking corrective actions to suite the strategic directions of the work. Within this context, performance measurement and management have become integral parts of FM and organisational management.

In this context, this special issue of 'Facilities' draws on the wide range of expertise that academics, researchers and professionals to contribute towards the applicability of performance measurement and management. This also creates a debate around performance measurement and management to assert its way forward in the area of FM. The papers address different perspectives and practices of performance measurement and management in FM across different sectors.

Lam and co-authors discuss the development of a Project Success Index (PSI) to benchmark the performance of building maintenance projects. They argue the concept of success remains vague among project participants, thus making it difficult to assess whether the performance of a project is a success or failure. The development of PSI can, therefore, be considered as a better way of quantifying the success concept in a scientific manner. The development of the PSI enables to compare the relative success levels of building maintenance projects. Lam et al's study reveals time, cost, quality, functionality, safety and environmental friendliness as the key performance indicators for building maintenance projects.

As the importance of performance measurement in social enterprises is growing, Straub and co-authors evaluate the use of conceptual systems approach to identify performance indicators for social enterprises, combining public and private tasks. Their study shows that the system approach to performance measurement has the tools to bring transparency to the aims and means of the various participants in the production process of social enterprises. The identification of key performance indicators, input, throughput, output and outcome indicators from the study ensures the effectiveness and efficiency of the internal business process and also covers the accountability to external stakeholders.

Chan and co-authors explore the means of adopting better performance through target cost contracting (TCC) form of procurement, based on a real-life case study of an underground railway station modification project in Hong Kong. Their study reveals the benefits of target cost-based procurement strategy such as the provision of cost incentives for the contractor to work efficiently, aligning individual goals of various contracting parties with the overall project objectives, achieving better value for money and more satisfactory overall project performance in terms of time, cost and dispute occurrence.

Bidliardi and co-authors and Bottani and co-authors evaluate use of balanced scorecard (BSC) for research and development and food supply chain performance measurement respectively. These two research papers provide structured approach to performance measurement system design for research and development and food supply chain with the use of BSC. Bigliardi et al's study reveal that economic perspective of the BCS has to be preserved when used within R&D context as it represents the tangible indicators of corporate wealth. However, they argue that companies need to monitor critical parameters of their business strategy, such as quality, time, customer satisfaction and employees motivation, which can allow for a broad and accurate view of company performance. With the identification of number of key performance indicated for food supply chain performance measurement, Bottani et al recommend their findings to be used by both researchers and practitioners in the given subject domains.

An analysis of crucial variables of customer satisfaction towards residential FM service to enable the FM companies to deliver high quality services is researched by Hui and co-authors. Their study reveals that service and management quality have significant positive impact towards customer satisfaction, and the effect of service quality is larger than that of management quality when the indirect effect is taken into account. Further, service quality is a crucial latent variable influencing on customer satisfaction and it has a significant direct effect on management quality

This special issue of 'Facilities' is our contribution in improving the status of facilities management performance knowledge base in improving facilities performance across organisations. It draws experiences and case studies from the FM discipline to provide an

understanding as to how facilities performance can be measurement and managed across different sectors. It is hoped that many more studies will build on this contribution and encourage the built environment community to identify new applications that will drive the way forward for future of FM performance measurement and management.

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