

Issues of breadth and depth in Facilities Management - Reflections of 30 years of educational development

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Abstract

Facilities Management (FM) has been around for almost three decades. As a profession, FM is now recognized in all six continents with recent movements of international collaborations between national institutions in Europe, North America, Asia and Australia. This paper will trace the development of FM and critically examine issues relating to the breadth and depth of FM from an educational perspective against the backdrop of a dynamic business environment and changing corporate demands for facilities provision and facilities services. The paper advocates that education in FM must balance theory with practice with emphasis on identification of context and culture, hard and soft skills, procurement and administrative processes, appropriate application of tools, and increasingly in a regional and global scale. In particular, issues relating to the role of FM, scope of functions, strategic and operational support to business units have been considered, with a view of justifying the contributing role of this rapidly growing profession. A focus of the paper is to provide a framework for postgraduate education and training in Facilities Management. The framework has been evolved out of the author's experience as program leader in developing and teaching postgraduate FM courses in three universities in three countries – i.e. United Kingdom, Australia and Hong Kong.

Keywords: facilities management, educational development, trend.

1. Why FM is needed in a dynamic business environment

In a recent white paper by i-FM (www.i-fm.net UK, 2012) "*Facilities Management – New needs. New solutions?*" it is stated that "...Facilities Management is an essential management discipline, and a multi-billion pound business sector employing hundreds of thousands of people." This is generally true for most countries; the differences are perhaps in the perception of facilities management (FM) as a distinct economic activity or an industry sector. There is also a consensus that while FM are tactical in its day-to-day operations, it is nevertheless closely related to, and should be involved in the corporate strategic planning and decision-making processes in both private and public sector organizations. There is greater corporate management acknowledgement that in realizing an organization's business objectives, the provision of facilities and support services is an integral part of strategic business planning. The recent global financial crisis have brought home to many organizations, the need to seriously consider the facilities dimensions of

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business planning – a resource which commonly constitutes 20-40% of total corporate asset value and consumes 10-15% of corporate expenses. The unique characteristics of facilities assets in terms of modes of ownership, functional adequacies, essential support services and long-term asset care demand management competencies that are often underestimated by corporate managers.(Apgar 2009) More recently, the growing awareness of impact of climate change has added the agenda of sustainability and corporate social responsibility on shoulders of facilities managers.

Over the last two decades, the discipline of facilities management and the FM industry that had developed to support it have both grown in complexity and maturity in response to the ever-shifting social, economic and technological trends. As the nature of work itself changes, so does the design and operation of the workplace, as do the drivers behind an organization's facilities strategy in relation to facilities design, provision and on-going management. The impact of globalization and the growing trend towards outsourcing of non-core functions, have also led to the transformation of client-service provider relationships within large multi-national corporations which are promulgating long-term, bundled or total FM contracts on a national or regional basis.

1.1 Key trends and influences and their impact on FM practice

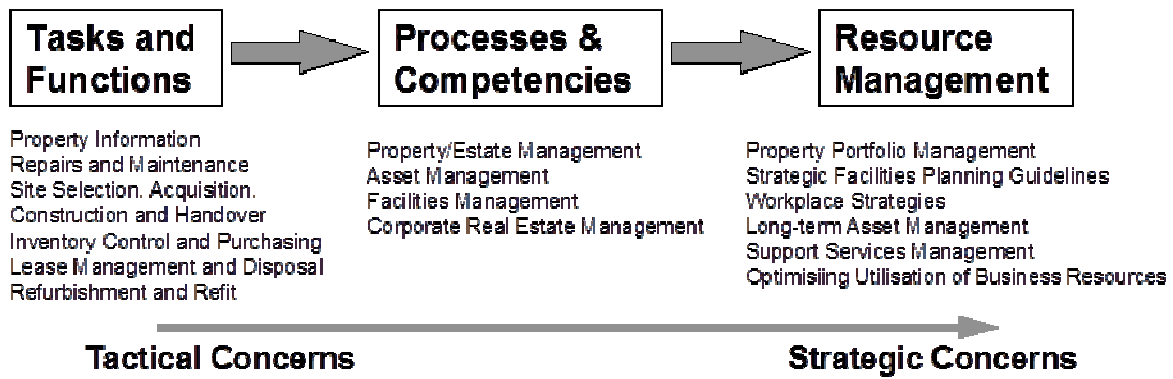
FM delivers critical business services that underpin the day-to-day operations of major and minor operations within any economies. A scan of learned papers in facilities management journals over the last two decades will reveal that the general development of FM thinking has evolved over four distinct phases (Jensen , et al. 2012):

1. FM merely considered as an overhead to be managed for minimum cost rather than optimum value.
2. FM as in integrated continuous process in relation to the organization's core business.
3. FM as resource management concentrating on managing supply chain issues associated with the FM functions.
4. FM as strategic management to ensure alignment between organizational structure, work processes and the enabling physical environment according to the organization's strategic intent.

A key theme across the four phases of change is a shift from pre-occupation with tactical concerns to addressing strategic concerns as illustrated in Figure 1. (Then 1998)

Key factors that drive the changing focus in facilities management include:

- Dynamics of business environment – need to cater for the speed of change.
- Demand for flexibility – need to incorporate built-in exit strategies in facilities provision.
- Demand for global connectivity – impact of technology and communication network on nature of work and business delivery
- Changes in work and workplaces – need to cater for employees' diversity and mobility.



Source: Then S.S. (1998)

Figure 1: Changing focus in Facilities Management

It can be surmised from the above that the role definition of facilities managers is predicated on change which necessitates abilities to respond to organizational change, to predict and manage facilities changes and changing service delivery models. Facilities managers should regard this as an opportunity to promote themselves as a catalyst of change within their organization as any change in the corporate strategic business direction are likely to impact on some facilities dimensions of facilities management.

1.2 Review of FM Practice in Corporate Organisations

Facilities management is now a recognized component of the business delivery supply chain but its mantra has been associated with ‘reduced costs’ and ‘improved efficiency’. This tired proposition is in danger of becoming irrelevant since cutting cost and process efficiency are a means to an end, and not the end itself. The massive economic and societal changes the world is currently experiencing require a more fundamental rethink of how the provision and management of real estate and facilities services can add value to businesses by taking a more strategic view of organizations’ operational needs.

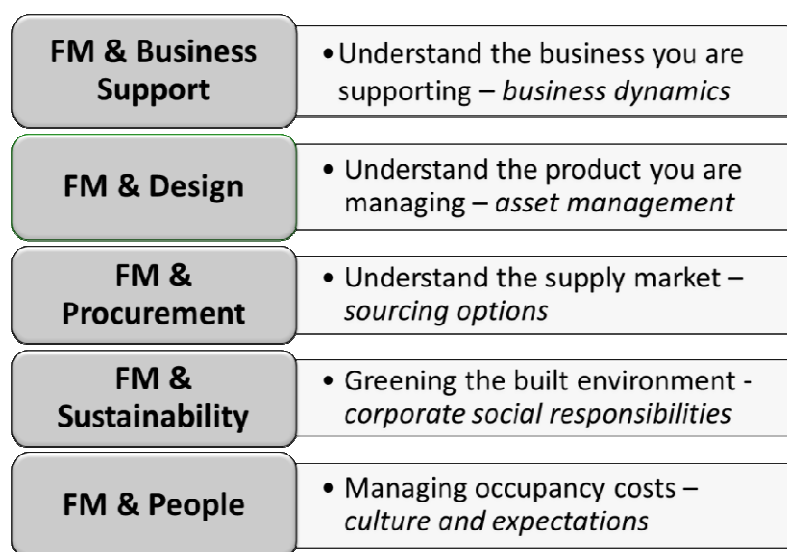


Figure 2: What businesses expect from Facilities Management? (Then 2012)

The above 4-phase change in FM development described in the last section clearly reflects a change from the initial dominating focus on cost reduction towards stronger strategic focus on actively supporting the core business. However, such a shift in focus and approach must be accompanied by a conscious attempt to understand the various facets of facilities management and their demands, as illustrated in Figure 2.

Ultimately, the justification for FM professionalism to corporate management demands a proactive integrated management system with ability to:

- Provide strategic facilities options and advice to corporate business planners.
- Demonstrate to corporate senior managers that facilities managers possess the ability and competences to provide facilities solutions to business challenges by leveraging facilities resources and services at a strategic level.
- Demonstrate the contributions of real estate and facilities services interventions to human resources productivity, business profitability and competitive advantage, through innovative facilities solutions – whether they be sustainable design and operations, branding, portfolio rationalization, high performance facilities, continuous improvements through technology, innovative procurement, etc.

2. Educational provision in Facilities Management

This paper represents an overview of my involvement in facilities management as an academic in three universities: Heriot-Watt University in Edinburgh; Queensland University of Technology in Brisbane and the last decade at Hong Kong Polytechnic University. As an academic offering high level education to practicing professionals from various disciplines, a primary challenge is to provide a credible knowledge framework from which the content of the program remains relevant and attractive to potential students. In this respect, I am constantly challenged to keep up-to-date on the latest pressures from the realities of economic and social shifts in an increasingly competitive, globalized and networked world. The aim has always been to develop a framework for postgraduate education in FM that is relevant, logical and credible. In this respect, I was particularly conscious of a comment by Adrain Leaman in an article in *Facilities* in 1992, which I shall quote:

“..At present, the agenda of facilities courses sometimes appears as unco-ordinated or illogically-formed lists, with no one quite knowing what to put in or what to leave out and with items sometimes included on the basis of staff availability or enthusiasms rather than on a clear idea of overall course structure...” (Leaman, 1992, p.20).

Formal university courses in FM (including variants of it) at certificate, undergraduate and postgraduate levels are now available in many countries in North and South America, UK, Western and Eastern Europe, Scandinavia, Asia and Africa. A scan of course content of existing programs in the internet confirmed a wide mix of subject topics. It would be fair to say that Leaman’s statement still holds true for some programs. A critical examination of the breadth and depth of FM may provide a basis for differentiating different product offerings.

2.1 Issues of breadth and depth in defining Facilities Management

Professional institutions' definitions of FM tend to focus only on competencies – with an emphasis on getting the job done. Educational development in FM, on the other hand, focuses on personal development and extending knowledge acquisition. For the continuous development of facilities managers, both knowledge (theory) and competencies (practice) are essential.

Given the potential scope of functions/services that could be included under the umbrella of facilities management, in practical terms, the unit of analysis has to be the business entity per se – i.e. it is the nature of business and the structure of business organization which provide the context within which the FM role has to operate. In an organizational context, 'breadth' can be taken to be synonymous with the scope of FM services needed to support the core business deliverables and how they are procured and managed. In terms of 'depth' this is a reflection of how the FM role is perceived at corporate management level and actually reflected in organizational positioning, in level of resourcing and in value adding potential to the core business – i.e. the current FM practice in the business entity.

From an education and training viewpoint, issues of breadth and depth in FM take on a different perspective in that they are a by-product of the program's or course's intent and the target population.

The breadth of FM has been variously described by a range of functions in relation to competences required to get the job done, much in line with the approach taken by FM professional institutions like IFMA, BIFM and FMAA. Similarly, FM has also been described in relation to the range of services needed to support the core business, particularly in decisions relating to procurement and outsourcing strategies. However, in terms of the knowledge areas, decisions relating to FM actions often rely on understanding and application of theories and principles that underpin:

- Economics and finance – e.g. financial control, budgeting, asset life-cycle cost evaluations;
- Human relationships and people management – e.g. working with service provider(s);
- Technology – e.g. its role and impact on work and workplace design, technology as a management tool;
- Physical asset management – asset life-functional, technical and economic, maintenance and component renewals, long-term care.

There are inherent tools and processes for each of the above knowledge areas that must somehow be incorporated in the individual subject content of FM programs.

As depth in FM is embedded in current practice within a business entity, the approach to learning is to assess and understand the context of actual practice. The learning outcomes rely essentially on soft skills in terms of understanding the determining variables (factors) that had influenced the current practice. These factors may be cultural, organizational,

political, internally or externally driven, and can only be abstracted through knowledge in soft skills.

In my opinion, it is the delicate balance in choice that has to be struck between the appropriate breadth and depth in FM that underpins the core of a well-structured course in FM. This has been the governing principle that has guided my program design.

3 A framework for postgraduate education in Facilities Management

It has taken me a greater part of three decades to complete the development what I consider to be a dedicated FM program that is comprehensive in coverage of FM functions that may be found in most business organizational settings. In the three universities that I have had the privilege of serving, I have sought to adopt a path of integrating the activities associated within the realm of FM as part of business resource management, albeit with a biased towards the effective management of the provision, servicing and management of physical assets within business settings, be there private or public sector organisations.

My initial thoughts of FM as a discipline started at Heriot-Watt University when I started my research career in public sector housing maintenance management in the early 1980s when FM first 'arrived' in UK with much confusion as to its role and content. Having spent a year discussing with FM consultants and professionals, I came to the conclusion not to attempt to seek a definitive definition for facilities management, but resolved to chart a course that attempts to map its context within business settings. Over the last 30 years or so, I have continued to explore what I consider to be essential facets of the practice of FM from a strategic management perspective. (Then, 1992, 2003, 2004) The emphasis on 'strategic' is both deliberate and critical, especially for post-degree programs with an emphasis on broadening an individual's knowledge horizon in a managerial role within an organizational setting.

3.1 Key facets of Facilities Management

In the more mature markets like in North America, Western Europe and U.K. the market for facilities management services appears to have developed to cater for three interrelated areas associated with the management of operational property assets. The search for value for money has had one important implication for the whole spectrum of industries selling products and services of all kinds - the need to describe (specify), to measure (performance criteria) and to quantify (price) the outputs (end products). In terms of facilities management, the response for more effective utilisation of operational property assets has been on three main areas: (1) strategic evaluation of the real estate portfolio which has led to the development of strategic facilities planning in many of the larger organisations; (2) space management and post occupancy evaluations which have been driven by the need to maximise utilisation of the workspace but with considerations on the well-being of occupiers; and (3) premises audits and condition assessments which have raised the awareness and need for cost effective long-term asset management. (Then 1994)

The above developments have reinforced my personal view of the scoping of facilities management. There are many definitions of facilities management that have been proposed by professional institutions around the world. Personally, I have found them to be unhelpful from the business point of view, especially from the perspective of corporate management, as their focus tended to be on required competences rather than what corporate management should focus on. From my experience, the core of facilities management can be considered as management relating to three key aspects of corporate facilities - assets, workspace and support services – all three are impacted by technological developments. (Figure 3)

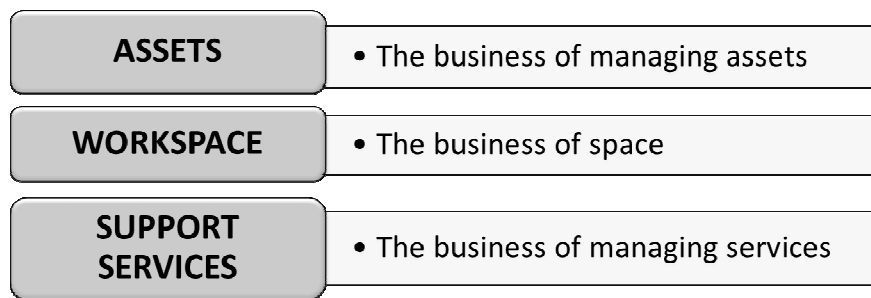


Figure 3: Management Aspects in Facilities Management (Then 2012)

The scoping of facilities management under assets, workspace and support services also conveniently define the distinct sectors of the FM services market that have evolved in the more mature economies. This categorization also defines the specific competencies relevant to facilities asset management, workplace management and service management respectively.

Corresponding to the three facilities management facets, the last two decades have seen major fundamental changes on the demand side and supply side of the facilities management market that has resulted in shifts in the management approach and focus as illustrated in Figure 4.

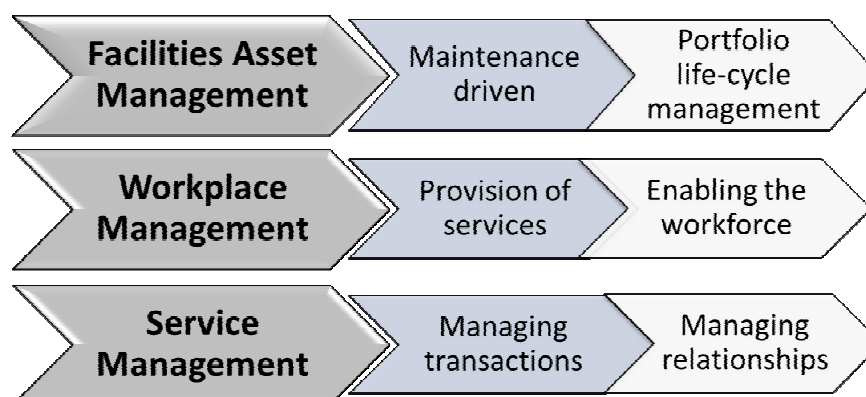


Figure 4: Changing Management Focus (Then 2012)

The adoption of the above scoping necessitates fundamental shifts in the current conceptualization of facilities management in terms of:

- FM beyond transactions – *about people, investments, assets and space.*
- FM beyond buildings – *about effective deployment and utilization of functional space.*
- FM beyond cost – *about alignment of supply to demand, value contribution to core business, affordable and appropriate services, and whole-life asset management.*

3.2 Main components within each facet of FM

In terms of implications on competencies, the four core components of FM become apparent covering strategic, tactical and operational aspects of facilities management activities:

- Strategic Facilities Planning – *responding to business dynamics.*
- Space Planning and Workplace Strategies – *workplace location, workspace design and space utilisation.*
- Asset Management and Maintenance – *asset value, asset care and performance.*
- Facilities Support Services Management – *defining services, procurement and monitoring delivery.*

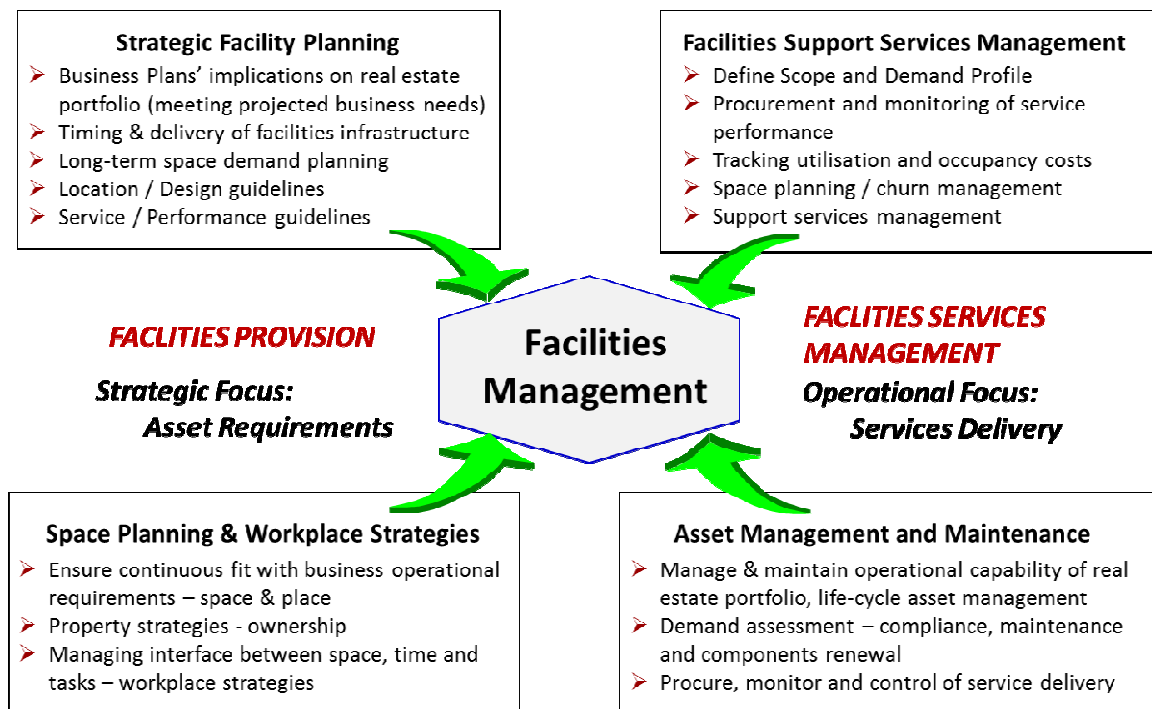


Figure 5: Integrated Facilities Management – Main components (Then, 2004)

The need for an integrated management approach is critical in that the prevailing business strategic direction will drive strategic facilities planning, the outcome being an agreed workplace strategy which in turn feeds into the needs for facilities support services and asset management and maintenance. It is within such an integrated management approach that the need for corporate management to consider their operational assets as a business

resource and integrates facility-related considerations within the strategic business planning processes. Figure 5 proposes a model that sees facilities managers' involvement spanning from facilities provision (strategic components) to facilities services management (operational components). The four components of *Strategic Facilities Planning, Space Planning and Workplace Strategies, Facilities Support Services Management* and *Asset Management and Maintenance*, reflect a broad, but inter-related resources base (people, place, process and technology) that the practice of FM must manage effectively to bring about favourable outcomes to business demands. The inter-relationships of the four components within an integrated management framework are illustrated in Figure 5.

The growing acceptance that an optimum facilities solution must be a by-product of considerations of the business operational needs (for space), the users (people) of the facility in performing their work tasks (process), and the necessary support infrastructure (technology and support services) to carry out their tasks efficiently and effectively; has had the impact of promoting this integrative view of managing business resources. The integrated components of FM in Figure 5 above points to a need to understand the business needs for space (demand) as the driver of facility provision (supply) – the start of the building development cycle. The use of new procurement methods has led to the integration of design-build-operate necessitating a partnership approach between traditional professions and taking a whole-life view of buildings as functional, durable assets.

From the above review, three features of the 'professional core' for FM are apparent:

- A broad framework of competencies for facilities management is identifiable; its coverage spans from facilities provision to facilities services delivery;
- Facilities management is multi-disciplinary embracing a blend of generic management skills with a range of facility-related technical knowledge that are specific to the asset portfolio needed to support the core business; and
- FM education and training must cater for career development from different traditional disciplines and at different entry levels.

3.3 A working model for postgraduate education and training

In my opinion, the theming of a program is critical in differentiating one from other competition in the marketplace. The reality will always be – the customer's choice. My journey to aspire to develop a dedicated FM graduate program started at Heriot-Watt University, Department of Building Engineering and Surveying, in Scotland where I initiated the MSc. in Facilities Management and Asset Maintenance in 1992. In 1997, at the Queensland University of Technology, School of Construction Management and Property, the first Graduate Program in Facilities Management (offering certificate, diploma and masters level qualifications) was jointly developed with the Graduate School of Business. I joined the Department of Building Services Engineering at the Hong Kong Polytechnic University in late 2001 where an existing MSc program in Facility Management already existed. As program leader since 2003, I am fortunate to have the opportunity to guide the development of the MSc program in FM in terms of its subject content, pedagogy and international accreditations. The development of each program's content progressed in

stages as I was fortunate to move from one university to the next which all wanted FM as a discipline.

The current working model of the MSc in Facility Management offered by the Hong Kong Polytechnic University is based on the conceptualization articulated above (3.1 and 3.2). Perhaps, a point of departure in the approach I have taken is to view the requirements of FM from the business perspective, rather than, from a professional viewpoint, whatever the bias may be; i.e. from a surveyor's, engineer's or real estate/facilities manager's viewpoint.

I am also fortunate to have colleagues who share my view of FM and contributed by developing specialist subjects in legal aspects and sustainability. Figure 6 illustrate the subject headings of the current program. The program is currently on its 17th year of self-funded existence with a consistent applicant-intake ratio of 2 to 3 for the last decade. It is perhaps worth mentioning that all the subjects on the program are specifically designed with the FM perspective in mind. In terms of pedagogy, almost all the subjects have a workshop component aimed at applying theory into practice via real-life case scenarios developed with experienced practitioners from the FM industry. The aim of incorporating the workshop (lasting 11 formal scheduled hours) for each subject is to provide a business context, via a case study scenario. Students (working in teams of 4) are required to generate realistic solutions against issues raised in the particular scenario based on knowledge, concepts, processes and tools covered during lectures and prescribed readings. The workshop scenario sessions also provided valuable opportunities in role playing and in considering realities of soft issues relating to organization culture and politics in terms of managing change through facilities-related initiatives and projects. This approach to pedagogy has proven to be effective, with positive feedback from students, who are all working professionals.

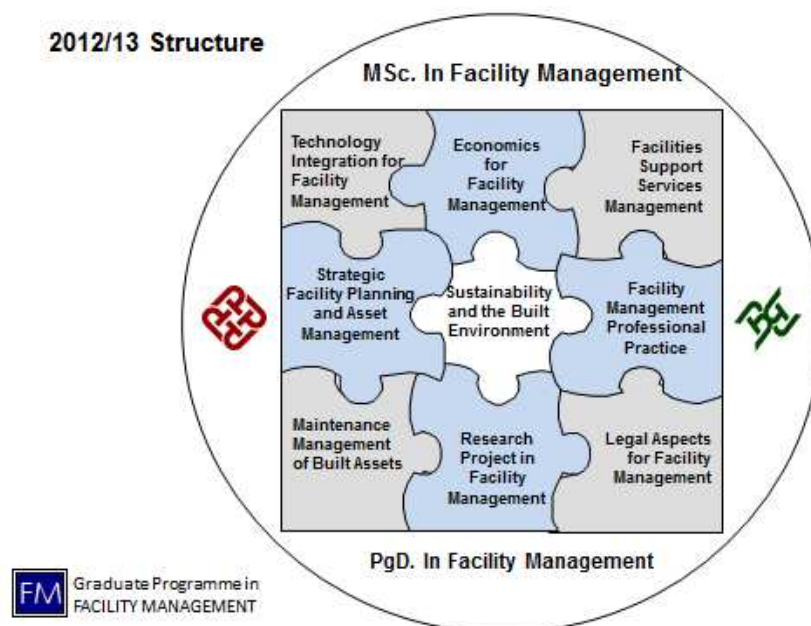


Figure 6: MSc in Facility Management - Course Structure

4 Reflections

As an academic, I have been very fortunate to have been given the opportunities and support in the three universities that I have the privilege of serving. I have the luxury of realizing a postgraduate program that was conceptualized during my doctoral research – even though the fruition of the complete package took a greater part of the last three decades and over three continents.

Over the same period, facilities management, as a recognized profession, has grown in strength, in numbers and in countries around the world. However, its recognition as an academic discipline is still somewhat patchy, due mainly to a perceived lack of its own knowledge base when compared to the more traditional disciplines. Nevertheless, healthy discourse amongst academics have already emerged in recent years that points to possible avenues of research to redress the knowledge or theoretical gap that beset its recognition as a valid discipline. (Jensen, et al 2012; Drion and Melissen 2012; Then 2004a; Price 2001, Wagenberg 1997). On the other hand, there are some practitioners in FM who argue that its lack of a clear definition is a source of FM's strengths rather than weakness.

Personally, I subscribe to the view that there is a growing consensus that acknowledges FM as potentially central to an organisation's core business processes. My view of FM comprising essentially of the management of *assets, workspace and services*, testifies to the potential breadth of FM within an organisational context. Issues of depth are manifested in the practice of FM within an organisation and is a consequent of knowledge, awareness of the potential role of facilities design in changing human behavior and hence, organisational performance. Ultimately, I believe, the pressures to remain competitive, coupled with the need to cope with rapid changes, driven by technological, social, environment and political developments, will drive the need to optimize all business resources, The management of physical assets and the facilities and services within them, being one of the most under-managed business resources, offers ample opportunities to add value to business by being more effectively matched to business requirements. (Apgar 2009, de Valence 2004; Ward and Holtham 2000, Then 1998). I concur with Wagenberg's assertion that 'development of FM theory has to take place in the practical context of FM... Theory proves itself in the reality of management of facilities.' (Wagenberg 1997; 6).

5 Conclusion

Educational offerings in FM education and training will continue to evolve worldwide, but the nature and content of programs offered in each country will be influenced by the level of maturity of the local FM industry in terms of developments in the demand side by clients' organisations, and supply side by FM service providers, FM professionalism and awareness of the need to better manage the built environment in a more sustainable manner. Given the broad scope of facilities management as a professional practice and field of research, it is hoped that this paper goes some way to provide considerations of potential avenues of specialisation in courses offering by institutes of higher learning in different countries in relation to their respective level of development in facilities management.

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