



**THE INFORMATION & COMMUNICATION
TECHNOLOGY MANAGEMENT
FRAMEWORK FOR FACILITIES
MANAGEMENT BUSINESS IN MALAYSIA**

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**1ST INTERNATIONAL BORNEO BUSINESS
CONFERENCE
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SUTERA HARBOUR RESORT
KOTA KINABALU
SABAH**

**BORANG PENYERAHAN KERTAS KERJA, LAPORAN DAN PENERBITAN-PENERBITAN
KEPADA PERPUSTAKAAN KUITTHO.**

A. Maklumat peserta.

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1st International Borneo Business Conference

4. Tajuk bahan yang diperolehi :

- i. The information & communication technology management framework
for facilities management business in Malaysia
ii. _____
iii. _____

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6. Tempat : Sutera Harbour Resort, Kota Kinabalu, Sabah

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B. Pengesahan Perpustakaan.

Adalah dengan ini disahkan bahawa MUHAMMAD NAJIB MOHD. RAZALI
telah menyerahkan kertas kerja, laporan dan penerbitan-penerbitan yang telah dihadiri
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C. Untuk Kegunaan Pejabat Pendaftar

The Information and Communication Technology Management Framework for Facilities Management Business in Malaysia.

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Abstract :Information and Communication Technology (ICT) become more important nowadays. The Malaysia government has also define attractive policies to make our economy environment more attractive such as Multimedia Super Corridor which is emphasize the implementation of ICT in various economy sector and also to make ICT as an important agenda. This includes facilities management sector in Malaysia. Therefore, this research will be planned to build a national ICT Management Framework for facilities management sector in Malaysia. This framework is a strategy and synergistic combination of a number of key components, working in tandem. The framework is best viewed as an interconnected triangle consisting of three key elements, namely, people, infrastructure and applications. The ICT Management framework must identify the importance to innovation of building strong link between ICT and facilities management sector. These will enhance facilities management sector capability to produce and deliver globally competitive product and services, to facilitate growth.

Keywords: Information Communication Technology, Facilities Management, Framework

Introduction

As the use of computers and telecommunications have changed over time, the portfolios of information systems suitable to an era of inward-focus automation of basic activities are unlikely to be suited to an age which focuses on information to support executive decision making, connect the organization to another organizations in the business environment. According to Konsynski and Tapscott, ICT is a factor in contemporary business environment to growth and as agent to link between two or more organizations with distinct and probably different structures, strategies, business process and organizational cultures.

The companies must take part and alert with new ICT system because to enter in globalization business, all the management system must be up date and all staff in the companies should know about ICT very well especially for the management.

All the companies in Malaysia must take action to build their company ICT system and there must have a good ICT framework. Framework is very important because framework is a collaborative community based effort in which these commonly needed data themes are developed, maintained, and integrated by organizations. Companies see the framework as a way to share resources, improve communications, and increase efficiency. Framework is best viewed as an interconnected triangle consisting of three key elements, namely people, infrastructure and applications.

Many types of organizations participate in developing and use the framework for their management. Although different organizations have characteristics data use pattern, all organizations need different resolutions of data at different times, particularly when they are working together. The framework represents a nationwide community for data sharing, and provides the benefits for the companies as a guideline to involve in globalization market.

Developing the ICT framework take a long time but, it is very important especially for facilities management in the companies. In Malaysia, facilities

management still a relatively new concept, which makes it difficult to present a definitive description. Facilities management can be described as multifarious because of the diversity of its core component such as technical, financial, administrative and management skill.

The scopes of facilities management will depend mostly on the company of which it is a part. Some companies may consider that the facilities management department should manage all non-core activities. This could therefore include departments such as purchasing, accounts, legal, and travel. Other companies may have their facilities management department incorporated into another support service function, such as finance or personnel.

Nowadays, facilities management has become a profession. Quite different from the role taken on by the engineer in the early eighties which was described by Becker "Facilities management resided in the boiler room not the boardroom" (Becker, 1990). Facilities management is important and the companies should take serious with facilities department.

The companies can manage their facilities management very well if they have a good system. For this situation, a framework is important to clearly for organize their company as a guideline and basic step to make any changes their process management to enter in era globalization.

Materials

Information system planning in the modern context

By the mid 1990's, it was arguably reasonably well established that some sort of formalized strategy information system planning was an appropriate undertaking for most organizations. Information system planning is to be closely allied to the organizations business planning activity, the accept wisdom at the time suggesting that ICT should only be attempt once a business strategy have been develop and articulate, and hence understanding reach of direction the organization planning to follow for the next few year, its goal, objectives, core business processes and its changes agenda, for examples. With this business strategy establish and share understanding reach among executives, an information system plan could be develop, determining the information and information system needs to support the business strategy, and thus guiding investment decision into the future.

An interactive and generative process is envisaged, recognizing a general trend of establishing a business strategy, then an information system strategy, and finally information technology, but acknowledging the constraints and pressures in the real world which may act to limit the strategies somewhat. Given the rate of technology charge, and the potential and impact that modern ICT could have directly on business strategy, and the outset o this process it is important to be aware of technological advances that may impact or alter the chosen or desire course for an organization (Peppard,1993;Liedtka,1998). The examples for the strategy framework it shows at Figure 1.

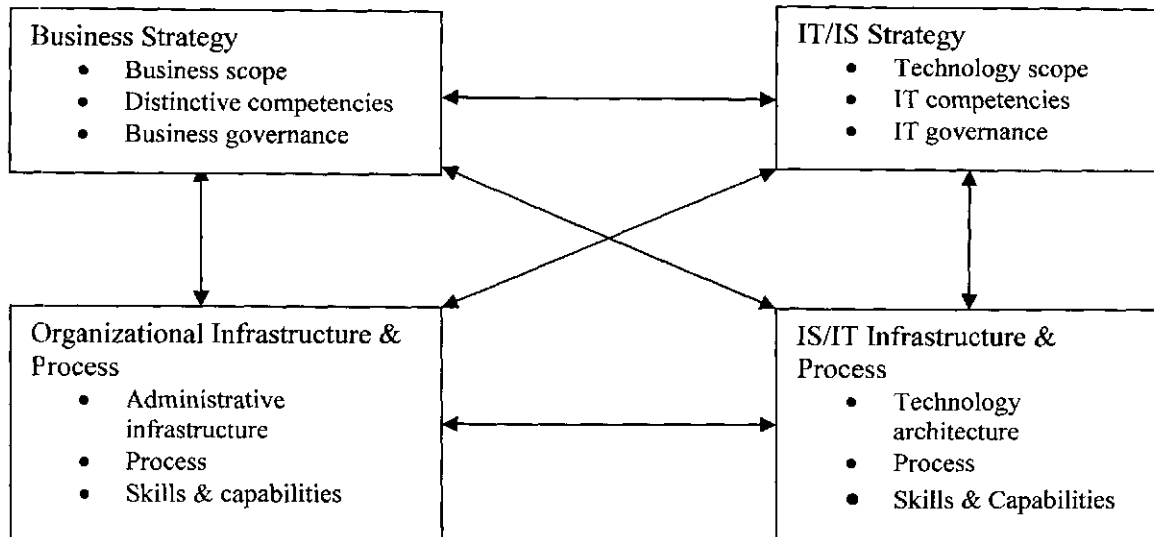


Figure 1 : Achieving Strategic Alignment (Adapted from Henderson and Venkatraman, 1994)

Rationale for facilities management

Most buildings represent substantial investments for organizations and usually have to accommodate and support a range of activities, taking into account competing needs. Within those activities is the organization core business, for which an appropriate environment must be created in buildings that may not have been designed for the purposes on organization might be on its core business, it cannot lose sight of the supporting services-the non-core business.

Company may have already considered the distinction between their core business and non-core business (such as cleaning and security) as part of the drive to deliver customer satisfaction and achieve better value for money. Since running costs account for a significant part of annual expenditure, there is bound to be pressure to look for savings in non-core business areas. Cutting operating budgets may be a financial expedient, but may not foster the company's long term development. Since the running of a company involve complex, co-ordinate process and activities, it is necessary to take an integrated view. A piecemeal approach to cutting costs is unlikely to produce the require savings and may impair the company's ability to deliver high-quality services.

Facilities management can therefore be summarized as creating an environment that is conducive to carrying out the company's primary operations, taking an integrate view of the services infrastructure, and using this to deliver customer satisfaction and value for money through support for and enhancement of the core business. Facilities management also can describe as something that will sweat the assets, that is make them highly cost effective, enhance the company's culture and image, enable future change in the use of space, deliver effective and responsive services, and provide competitive

advantage to the company's core business. Relationship between core and non-core business in company shows at Figure 2.

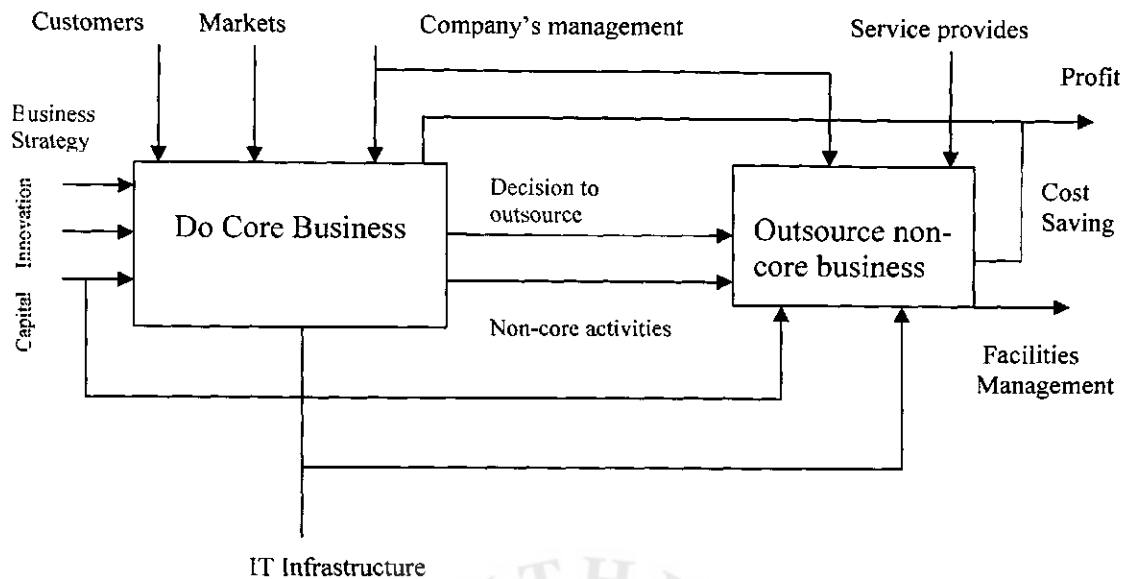


Figure 2: Basic relationship between core and non-core business

Company may not be aware of the extent to which value for money in facilities management can be improved. There are common themes and approaches to facilities management, regardless of the size and location of buildings, although these may not necessarily result in common solutions to problems. In some cases, estate-related and facilities services outsourced (contracted out) and in others retained in house for good reasons in each case. There are also many companies that operate what might be described as a mixed sourced in some measure as well as being retained in house.

Whichever course of action has been taken, the primary concern is the basis for the decision. Where the companies approach has been arrived at for entirely proper reasons, such as demonstrating better value for money from one approach as opposed to the other, facilities management is working effectively.

The development of ICT in Facilities Management

The use of information technologies without the overarching direction of and information system, more often than not, leads to generation of voluminous, poorly focused and irrelevant information. The creation of excess information in this way is a good reminder of the need to evaluate an information system on the basis of a cost-benefit analysis.

The lack of information on products and components in terms of usage and cost can lead to difficulties in focusing the role of Facilities Management and establishing the

supply chain within it. Difficulties in monitoring and tracking financial information can also prevent efficient budget control, accurate estimation of work, and contract and purchase management. Good planning in maintenance, operation and refurbishment can be hindered by the availability of life cycle information that is, for instance, crucial in the planning the replacement of components.

Currently, there are no standards that support information exchange and sharing across the building life cycle. Given that there is potential for improvement in business process though the exchange data on the facilities management process, there is a growing need to investigate the issues involve in developing a standard that can benefit this most important part of the business life cycle. This standard could then be use to assist in the development of an information management system to support the exchange of information and the assessment of facility requirements. Such an information system requires a large volume of data. Accurate assessment of a facility's needs requires knowledge of equipment standards from a design and construction information systems, access to accurate maintenance records and repair and replacement costs, access to operation and occupancy information, other operating costs, space management data, operation standards and data from occupational and health and safety information system and from a financial and commercial information system.

An integrated information system as shown in Figure 3 could assist facility managers and other project tem members to combine data and information on a facility's life cycle, and base on the integration of cost and commercial data, design and manufacturing and construction data together with facility operation and maintenance data.

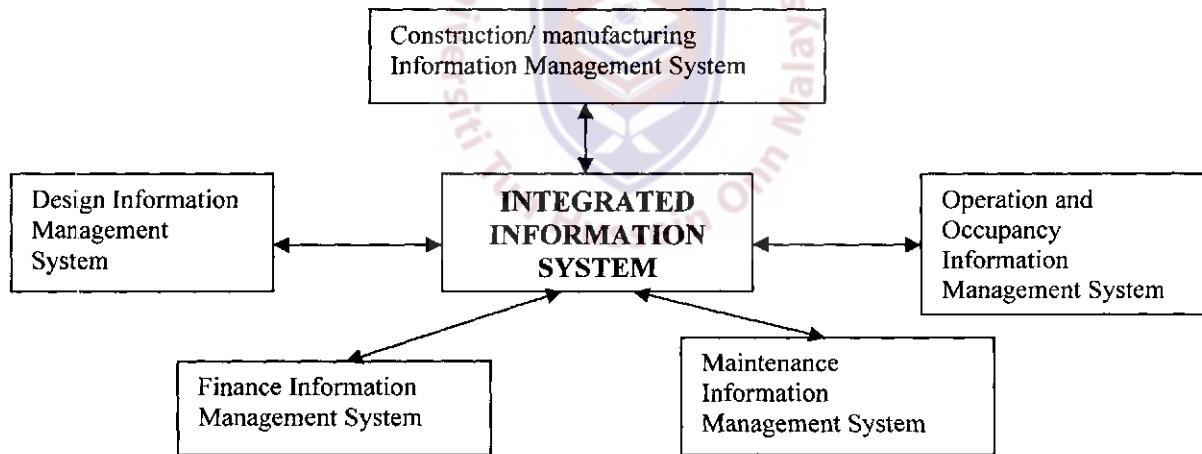


Figure 3 : Integrated Information Management System

Conceptual Framework

The overall conceptual framework that forms the basis of this pilot research project is shown at Figure 4.

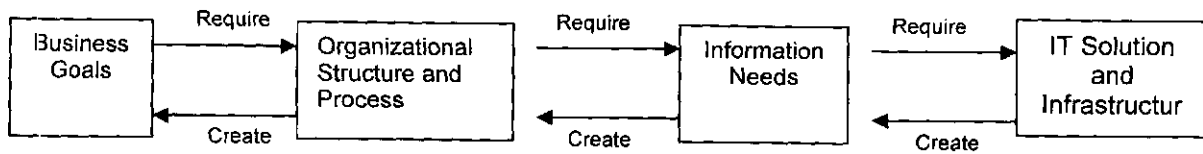


Figure 4 : Sample of Conceptual Framework

This conceptual model hypothesizes that information technology acts as both amenable (provides new possibilities for organizations to achieve business goals) as well as a source of innovation (emerging technology provides new possibilities for organizational structure and processes and may generate new business goals)

In addition, this model may influence organizations in at least three different ways:

1. *Strategic positioning*

Information technology may provide a means for organizations to uniquely position themselves in the market place in a manner that would be impossible without the availability of information technology. Examples of strategic positioning are emerging in the form of 'virtual organizations' which provide substantially improved value to customers compared to traditional organizations. Strategic applications of information technology may involve inter-organizational information sharing, such as the use of distributed database.

2. *Work group productivity*

Instead of affecting the entire organization, work group productivity effect subsets of an organization. The use of groupware (e.g., Internet collaborative applications) has the potential to empower and integrate project teams for substantial improvements in project productivity and at the same time reduce the need for middle management.

3. *Process redesign*

Process redesign may affect the productivity of one or more individuals as jobs are reconfigured and processes simplified. Information technology can facilitate the task of process redesign by providing tools that eliminate routine jobs and decentralize decision-making.

Conclusion

As developing countries, face the new opportunities and challenges of the global network economy, there is increasing debate about how ICT can more effectively enable socioeconomic development. Although several countries have in fact created national ICT task forces and developed national ICT strategies, the lack of comprehensive frameworks to illustrate how to use and deploy ICT development leaves nations struggling to identify effective strategies, sometimes even pursuing detrimental and costly approaches.

Strategies for use the ICT are not universal. Countries face different circumstances, priorities and financial means and should therefore adopt different strategies accordingly. The framework can be help in determining a strategy regardless of what goals have been established, since coordinated action along the five areas identified in the framework is always likely to yield more effective results. However, the evidence and analysis presented suggest that strategy that focuses its ICT interventions towards the achievement to development goals is more likely to achieve marked socioeconomic development.

Facility management is essentially workplace management. In essence, it is a manifestation of facility management as the interface that manages changes in people, facilities and technology. They are many opportunities and expansion areas be it in properties, human resources, finance or ICT. Facilities management should have the ability to anticipate as to what organizations will require in future years. In the past, the role of facilities was merely that of service provider, and now, facilities management as a business solutions.

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