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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

**THE EFFECTS OF IT STEERING COMMITTEE
ON IT MANAGEMENT IN MALAYSIAN COMPANIES**

BY

MOHD AZLAN B GHAZALI (G 9810103)

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ABSTRACT

One of the difficulties that the firm faces in justifying an investment in IT is dealing with the spectrum of things that are likely to influence the value that can be appropriated by the firm once an application or infrastructure is built or implemented. It is believed that effective implementation and utilization of steering committee could promote or champion a specific IT project with the support within the firm, setting the stage for success to be achieved on the technical and usability merits of the resulting applications. The use of IT steering committee has been viewed as an effective way of getting top management and user involvement in IS planning, and ensuring the fit of IS with corporate strategy. The use of this committee has also been found to have a significant impact on the effectiveness of IS planning.

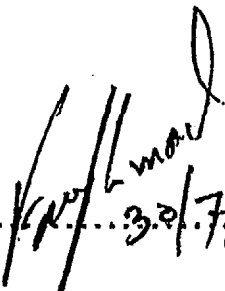
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ON IT MANAGEMENT IN MALAYSIAN COMPANIES**

Submitted by Mohd Azlan Hj Ghazali (G9810103)

The undersigned certify that the above candidate has fulfilled the conditions of the project paper requirement in partial fulfillment for the degree of Master of Business Administration.


..... 30/7/02

Dr. Farooq Ahmad

Assistant Professor

Department of Business Administration


Kuliyah of Economics & Management Sciences

International Islamic University Malaysia

Date:

DECLARATION

I hereby declare that this project paper is the result of my own investigation, except where otherwise stated. Other sources are acknowledged by footnotes giving explicit references and a bibliography is appended.



MOHD AZLAN B GHAZALI

G 9810103

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CHAPTER ONE

INTRODUCTION

This chapter presents the background of the study, research problem, objective of the research, significance of the research, as well as definition of terms. The final section discusses about the organization of the study.

1.1 Background of the study

The advantages to and the increasingly strategic necessity of applying information technology (IT) in supporting broad range of organizational activities are generally recognized today by most managers. While IT is used in many organizations, the extent to which it is applied creatively and to critical tasks varies widely. (Boynton, 1994).

During the past decades the overall business environment and the IT which helps run the business have undergone tremendous changes. IT has grown by leaps and bounds in computing capacity and speed. The increasing speed and capacity provide a platform for broader application of software to the business to exploit its capability. Many firms have realized the importance of using IT as a competitive weapon. Personal productivity tools are now accessible throughout most organizations. New technologies promises and improvement on the human-computer interface, enhance the richness of electronic communication, and automate the development of more systems (Niederman, 1991). This technology is capable of altering core organizational directions, reorienting corporate strategy, and possibly redefining industry structure (Raghunathan, 1992).

IT serves an increasingly important role in many firms in facilitating or enabling the introduction of new products or services and the improvement of operational or managerial work processes. The successful application of IT in such efforts is linked with the effective management of a number of processes associated with the planning for, acquisition of, and implementation of the firm's IT portfolio. (Boynton, 1994)

IT has made inroads for new industries in three distinct ways (Porter and Miller, 1985). First it makes new business technologically feasible. For example, advances in microelectronics made personal computing possible. Services such as Meryll Lynch's Cash Management Account was made possible which required new IT to combine several financial products into one. IT is providing firms with unique opportunities for product innovation. In many industries, from automotive to consumer electronics, IT is being built into existing products to enhance their value (Bakopoulos and Treacy, 1986). Second, IT creates new businesses by creating secondary demand for new products. Third, IT creates new business within old ones. A firm with information processing embedded in its value chain may have excess capacity or skills that can be sold to interested third party.

The role of IT has always been to help firms solve critical business problems or deliver new services by collecting data, turning data into information, and turning information into knowledge quickly enough to reflect the time value of knowledge. For the first 30 years, most of our resources has focused on the first stage of the process - building hardware, software, and networks powerful enough to generate useful data. The next stage, and the next arena for competitive differentiation, resolves around data analysis. Firms should focus their attention from systems to information. In competitive world where firms have access to same

data, who will excel at turning data into information and then analyzing the information quickly and intelligently enough to generate superior knowledge? (Hopper, 1990)

Investments in IT can give firms a basis for increased coordination and control or can provide direct competitive advantage in world markets. For example, a large computer vendor uses its worldwide network to ensure that products designed in the U.S. are appropriate for customers throughout the world. Lawyers for a large oil firm use the firm's worldwide office system to prepare international contracts in a fraction of the time previously required. In a large merchant bank, a globally integrated trading system helps the dealers manage their currency risk and calculate profits, while it also permits the firm to operate in a virtual 24-hour currency market. Moreover, traders conducting business through the Australian or Japanese subsidiaries, which are located across the international date line from the U.S., enjoy a full extra business day before they must settle with North American and European trading partners.

1.2 Research Problem

One of the difficulties that the firm faces in justifying an investment in IT is dealing with the spectrum of things that are likely to influence the value that can be appropriated by the firm once an application or infrastructure is built or implemented. The primary emphasis was to understand those factors that are internal to the firm, especially the extent to which the management is able to promote the effective implementation and utilization of steering committee that makes up its mind to promote or champion a specific IT project can gather support within the firm, setting the stage for success to be achieved on the technical and usability merits of the resulting applications. Senior management involvement will have

positive influence on the appropriation of value from an IT investment (Davern and Kauffman, 2000).

The proliferation of IT has created its own problems associated with poor design methods, poor management of end-user computing and poor management of computing resources. In IT environment, the assimilation of IT into organizational process has become a complex and challenging task. Effective IT policy and responsibility involve a continuous reshifting and rebalancing of power between different interest groups such as : top management, users, and IS management. Appropriate management processes have to be initiated to ensure cooperative and coordinated actions by these groups to achieve the full potential of IT as a strategic resource. The use of IT steering committee as an IS management tools has been suggested to be one of the mechanisms for bringing these interest groups together (Raghunathan, 1992).

The use of IT steering committee has been viewed as an effective way of getting top management and user involvement in IS planning, and ensuring the fit of IS with corporate strategy. The use of these committees have also been found to have a significant impact on the effectiveness of IS planning. Further research has also found that the impact of these committees on organizational IS depends critically on the composition of its membership. The short-run versus the long-run perspective of the committee was found to be affected by whether its membership consisted of high-level or middle-level manager, and its direction was found to be influenced by whether it was composed of major insert or had only token representation from user departments.

The central questions are : (1) does IT steering committee have a strong influence on IT decision and management, (2) is firm's competitiveness assisted by IT steering committee; and (3) do IT steering committees assist the firm in aligning its IT investment and business operations.

1.3 Organization of the study

This study is organized into five chapters.

Chapter One presents an introduction and background of the study and research problems. *Chapter Two* is the literature review and the presentation of the hypothesis; whilst *Chapter Three* presents the research methodology that is used in this study and the analysis of the data. *Chapter Four* deals with specific level of IT Steering Committee at company, parent company level and Malaysia in general. *Chapter Five* concludes this study by discussing major findings and implications of this study, and ends with several suggestions for future research in this area.

CHAPTER TWO

LITERATURE REVIEW

A steering committee is a high-level team of representatives from multiple divisions or functions who are entrusted with the task of linking IT strategy with business strategy by setting a strategic direction, and matching corporate concerns with technological potential. IT steering committee was instrumental in formulating important IT decisions regarding systems development projects, hardware and software selection, outsourcing of IT services, and it is believed that this steering committee will assume greater role. Chaired by a top executive, steering committees meet periodically to discuss IT direction, approve and rank projects, review performance, formulate or approve technology policies, determine resource levels, and perhaps recommend major initiatives (Karimi et al, 2000).

Effective IT management requires conscious coordination of the relationship between business strategy and IT resources, as reflected in the degree to which IT mission, objectives, and plans support business mission, objectives, and plans. A steering committee is an organizational structure that helps bridge business strategy with IT strategy by embodying an organizational commitment to the alignment of business and IT strategy and by validating such an alignment (Karimi et al, 2000).

To explore the effectiveness of steering committee for the management of IT function. IT steering committee are more likely to have an overall written plan for systems development, have separate plans and budgets for maintenance and new development, achieve mutual agreement on set of criteria for deciding which projects to do first, and secure the firm's long term commitment to provide stable funding for systems development activities. (Doll and

Torkzadeh, 1987). Others report that steering committees improve the IS portfolio (McKeen and Guimaraes, 1985); promote a favorable psychological climate that positively impacts IS success (Ein-Dor and Segev, 1978); and provide perceived benefits to top management, users, and data processing personnel (Drury, 1984).

IT steering committee establishes systems guidelines for policy management, resource management and direction setting. It also helps define and implement appropriate controls to ensure system compliance with these guidelines. Their responsibilities are to : (1) approve IS long-range plan; (2) approve policies and procedures relative to corporate-wide IS (3) establish IS cost allocation policies; (4) prioritize major IS projects within funding guidelines; and (5) monitor major IS projects with respect to budget and schedule. (Howe and Oestreicher, 1988)

Steering committee is a formal organizational structure for managing various aspects of business-IT fit. Steering committees enhance IT management capability in at least eight ways : (1) by providing strategic direction to IT operations; (2) by providing leadership in exploiting and managing IT; (3) by resolving resource allocation decisions; (4) by helping top management maintain control over IT activities; (5) by securing top management support for IT activities; (6) by providing visibility of IT initiatives; (7) by deciding which IT activities are of strategic importance to the firm; and (8) by centralizing or decentralizing the IT function(Karimi et al, 2000).

Firm size is often cited as a major determinant of firms structure and planning. As firms evolve and grow, IT planning practices may become more formalized (Doll and Torkzadeh, 1987). As firms increase in size, they develop differentiated sub units and

increase investment in IT resources in search of advanced marketing and logistics strategies. They tend to have steering committees to coordinate and monitor policy, resources, and progress. IT steering committees facilitate user and top management involvement in this function. As a firm's size increases, the inter unit coordination become more complex. A steering committee can help create the necessary fit between IT and firm's strategies.

2.1 *IT Management*

The increasing interest in the use of IS as a strategic resource in firms has led to the realization that, to manage this resource effectively, it is important to identify and select IS applications that fit the priorities and needs of the firms. Such alignment can foster the development of systems geared to help the firm reach its strategic goals, whether it be through the achievement of critical productivity improvements, the offering of new and better services, improvement of its corporate image, or obtaining long-term firm support (Raghunathan, 1992)

The technological and cost characteristics of both hardware and software have evolved rapidly. This situation requires frequent meetings between IS staff and management groups to discuss developments that might help the firm and to generate plans to deal with them. Furthermore, end-users must be made aware of the implications of any changes as well as potential problems in their area of responsibilities in relation to IS applications. (McFarlan, et al, 1988)

The shortage of IS skilled and knowledge worker often necessitates careful planning and development due to long training needed to make these workers fully effective. Another

factor that is very critical is the limited availability of financial and managerial resources. Managers will face tough choices and make tough decisions in allocating these resources. (McFarlan, et al, 1988)

The continuously growing importance of IT requires firms to integrate IT decisions with their common planning and decision-making processes at all organizations level. IT enables the creation of products, services, distribution channels, and links with customers, suppliers, and other stakeholders. Business successes depends on the firm's ability to fuse the potential power of IT into business processes and networks. (Van Der Zee and De Jong, 1999)

Although IT function is often decentralized, users frequently perceived it as centralized. The users think the specialists are remote and have too much control. Furthermore, they believed that IT people know nothing about the business. By the time, the IT specialist has been educated about the business, they have left the firm. The labels "user" and "specialist" while accurate, also create two cultures. The bridging devices to solve these problems is the IT steering committee. The focus is on proximity, cross training, shared understanding, and relationships. (Bensaou and Earl, 1998)

Steering committees functions to communicate potential uses, implications, and benefits of IT investments to top management and user groups. They also play important role in strategic planning. The presence of IT steering committees has positive influence on firm's level of IT control, organization, and integration activities. Therefore, the proposed hypothesis :

H₁ : IT steering committee have a strong influence in managing IS in the firm.

2.2 *Competitive Strategy and Firms' Strategic Response*

Competitive advantage is normally defined as the ability to earn returns on investment persistently above the average of the industry (Porter, 1985) There are several factors that may enable an innovator to defend its competitive advantage status: (1) there are barriers to duplication. Competitors cannot imitate the innovation due to patents, trade secrets, or lack of technical expertise, (2) there are significant first-mover effects. The innovator can preempt the market and defend this position through customer switching costs, or there are substantial dynamic economies (such as learning and continuing innovation) that allow the innovator to stay ahead of the competition; and (3) the innovation changes underlying the industry characteristics (e.g. available technologies, consumer preferences, or business process) that influence costs or differentiation to favor the innovator. (Clemon and Row, 1991).

In any firm, IT has a powerful effect on competitive advantage in either cost or differentiation. The technology affects value activities themselves or allows firms to gain competitive advantage by exploiting changes in competitive scope. (Porter and Miller, 1985)

Parsons (1983) uses Porter's competitive forces framework to identify six generic categories of opportunities for competitive advantage: (1) increase customer's switching cost through value adding IT-based information or service; (2) decrease own switching costs against suppliers; (3) use of IT to support product innovation, for purposes of maintaining one's position or deterring potential substitutes; (4) cooperation among rivals through shared IT resources; (5) substitute IT for labor; and (6) use information to better segment and satisfy one's customer base.

In many firms, new marketing programs, new product design, and the implementation of new strategies depends on the development of IS support program. If the firm strategy could not be carried out owing to IS limitations, managers in charge must receive this message and resolve the problem. (McFarlan, et al, 1988)

Under utilization of IT for competitive advantage is a serious problem facing both IS and business manager. The most often cited causes of this problem include: (1) senior management's ignorance of IT and its potential uses; (2) poor communications between the IS groups and the rest of the business; (3) resistance to change, among both IS and business personnel; (4) lack of focus on opportunities for competitive advantage; and (5) a lack of good measures of valuable impacts, which inhibits investment. (Bakopoulos and Treacy, 1986) Many organizational and managerial remedies for these problems have been suggested.

Among others, is the importance of the proper management of IT for its successful deployment. The mission and management of IS group should be consistent with the firm's dependency on technology and the opportunities for competitive advantage.

This discussion implies that the firm's competitiveness will be reflected in the role of its IT steering committee. This leads to the next hypothesis :

H₂ : IT steering committee helps the firm to gain competitive advantage (via utilizing IT resources)

2.3 Strategic Alignment of IT with Business Strategy

Alignment is defined by Webster as "bringing parts or components into proper coordination; to bring into agreement and close cooperation." Successful alignment can be accomplished via coordination of strategic objectives with a number of key components such as resources, management processes, decision-making mechanisms, performance measures, rewards, and incentives. Successful approaches for aligning business and IT strategies focus on customers and markets. The IT value chain is simply the people, processes, tools and firm that link together to deliver the desired products or services to the customer. To achieve agreement, coordination, and close cooperation between business strategy and IT strategy; a clearly defined roles, responsibilities, and accountability may be the key to successful collaboration between business and IT managers. In this vein, a steering committee will be formed - staffed with combination of business and IT leaders. (Bruce, 1998)

Strategic planning for IS has been viewed as a mechanism for linking organizational goals with IS goals by considering the interrelationships among organizational systems, and by developing an overall plan for integrating IT. This linkage has been found to be useful in improving IS performance, coordinating IS and business plans, and overcoming difficulties in identifying top management objectives.

The increasing interest in the use of IT as a strategic resource in firms has led to the realization that, to manage this resource effectively, it is important to identify and select IT applications that fit priorities and needs of the firm. Such alignment can foster the development of systems geared to help firm reach its strategic goals. These strategic goals could be the achievement of critical productivity improvements, the offering of new and better services, improvement of corporate image, or obtaining long-term organizational support. (Raghunathan, 1992)

The hierarchy below explains some of the difficulty of IS strategic planning , as Earl (1989) said :

“We are trying to connect the exploitation of IT, which is in itself complex, rapidly changing, and often not well understood by managers, to development of business strategies where neither the principles nor the methods are yet agreed. Paradoxically in seeking to bridge these two problematics and somewhat unstructured streams the desire seems to be to find a structured methodology; management seem to want a structured approach.”

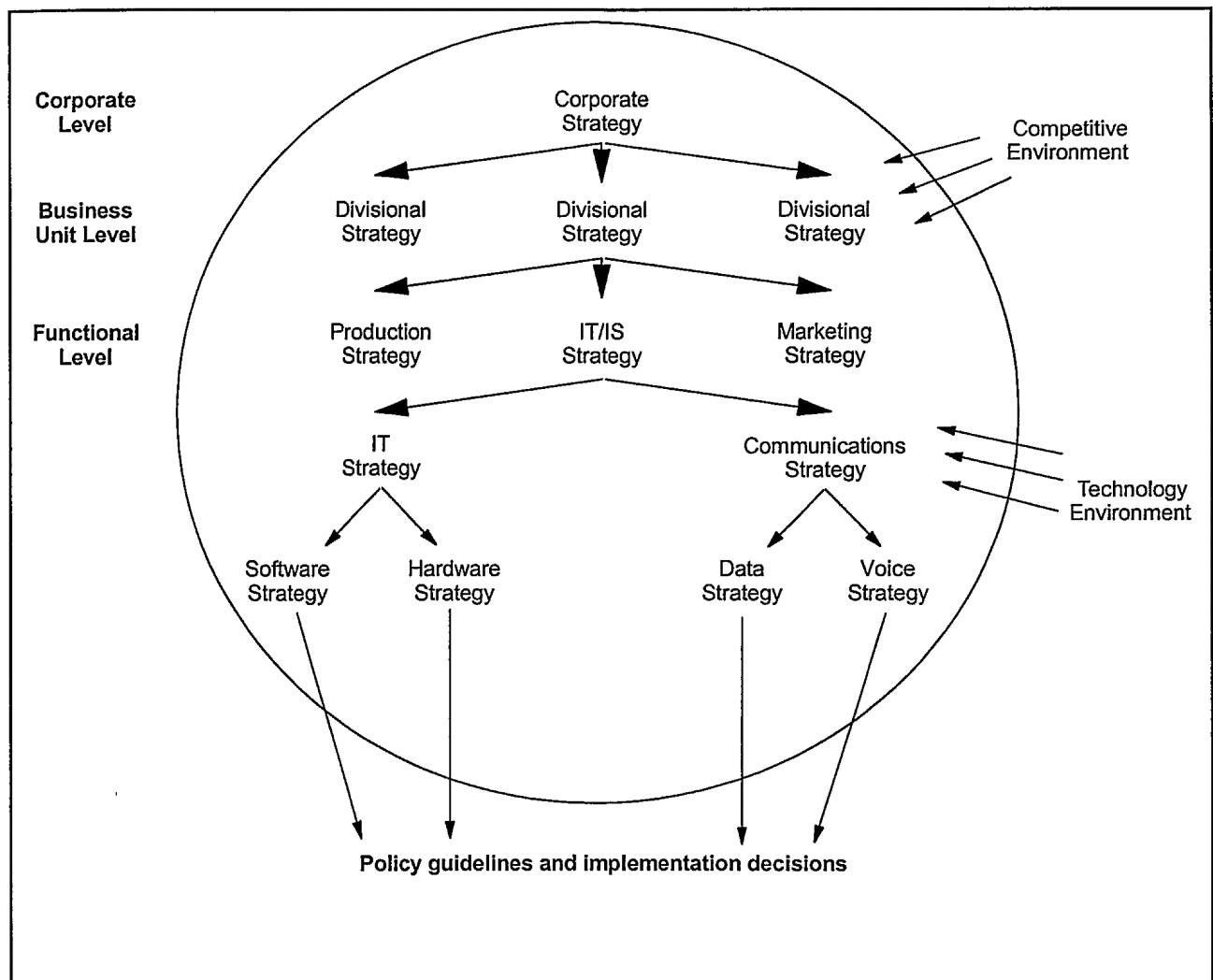


Figure 2.1 : Hierarchy of IS Strategic Planning

This can be translated into, developing business strategies is difficult; developing IS strategies is difficult; developing IS strategies that support business strategies is very difficult. Therefore managers are constantly seeking ways to understand better the nature of IS strategy planning and ways of appraising the planning process they and their organization undertake.

A variety of pressures make IT steering committee necessary in the IS field. The most important are rapid changes in technology, scarcity of skilled resources, and the importance of IS to corporate goals (McFarlan, et al, 1988)

IT might follow an organization's strategic direction, and at the same time, the business strategy can also be led by IT opportunities. An integrated business and IT planning process needs to be carried out by those who understand the strategic direction of the company, who are deeply involved with the business issues at hand, who are able to think in terms of business results, and who understand the capabilities of today's technology. (Van Der Zee and De Jong, 1999)

Strategic alignment, or the alignment of IT with business strategy, has been consistently ranked as the most important issue facing business and IS executives in Europe and North America. If payoffs from IT investment are a function of strategic alignment, then any attempt to increase IT business value must consider the extent to which IT is aligned with business strategy (Tallon, et al, 2000). Firms with more focused goals for IT will achieve higher levels of strategic alignment. Hence, the following hypothesis :

H₃ : IT steering committee assist the firm in aligning its IT investment with business operations

CHAPTER THREE

RESEARCH METHODOLOGY, GENERAL ANALYSIS AND FINDINGS

This chapter discusses the research design and methodology used in the study. It also discusses the research hypothesis, selected population and targeted group, the design of research instrument , the data collection procedures and the data analysis.

3.1 Introduction

The main research method is conducted through questionnaires. The questionnaire contained items which were measured on a 5-point Likert-type scale and were coded on the basis of their responses between 5 (strongly agree) and 1 (strongly disagree). It consists of four parts: Part A describes the respondents' background, Part B describes the respondents' opinion on the relationship of IT steering committee and IT management; Part C describes the respondents' opinion on the effectiveness of IT steering committee in aligning the IT resources in the company; and Part D describes the respondents' opinion on the effectiveness of IT steering committee in utilizing IT to gain competitive status of the company.

Part	Description	Number of Questions
A	Respondent General Information	5
B	Steering Committee and IT Management	17
C	Steering Committee and Strategic Alignment	6
D	Steering Committee and Competitive Status	17
Total		45

Table 3.1 : Questionnaires Classification