A STUDY ON BOARD OF DIRECTORS AND ORGANIZATIONAL PERFORMANCE

by

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(ABSTRACT)

This dissertation reports an investigation of the relationship between board strategic management functions and organizational performance. This dissertation provides a framework for understanding the influence of boards of directors in decision making, planning, control and operation, and financial performance of the firms. Based on the conceptual framework, it is argued that an effective board of directors will have a positive relationship with performance. Four hypotheses stemming from the conceptual framework were used to relate boards' strategic management functions and organizational performance.

The research was conducted in Malaysia, and the organizations used for the study were public enterprises. Forty-two firms in three industries of the manufacturing sector were selected for the study. These firms were building materials, food, and wood-based industries. Boards' strategic management functions, the independent variables, consisted of the boards' role in decision making, planning, control, and board operation. Organizational performance, the dependent variable, was operationalized by using financial indicators: return on assets, profit margin, average rate of growth in profit, average rate of growth in assets, and average rate of growth in sales. Correlation,

multiple regression, and t-test analyses were used to confirm or reject the four research hypotheses. Besides these analyses, the dissertation provided information on the profile of the boards of directors of the three industries in six different areas: size, age, occupation, educational level, specialization, and business experience of the directors.

The findings showed that there was no consistent pattern in the relationship between board strategic management functions and organizational performance for all the three industries. The data analysis failed to support the conceptual framework which indicated that there should be a positive relationship between an effective board and organizational performance.

The results of the dissertation were discussed with respect to major findings and significance to management theory and practice. The dissertation concluded with a discussion on the limitations of the study and suggestions for future research.

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CHAPTER I - INTRODUCTION

STATEMENT OF THE RESEARCH PROBLEM

Bacon and Brown (1975:11) define a board of directors as a body which acts as a unit and is charged legally with taking certain actions or accepting certain responsibilities in the function of a corporation. The two authors indicate that from their examination of the responsibility of boards of directors - in the laws, in statements by directors and chief executives, and in the literature -- four broad responsibilities of boards of directors are identified:

(i) to protect the assets of the owners of the corporation and to look after their interest in general;

(ii) to ensure the continuity of the corporation, primarily by maintaining and enforcing the charter and laws and by seeing that a sound board is maintained;

(iii) to see that the company is well managed, which is considered by many the most essential duty of the board; and

(iv) to make certain decisions that are not considered to be delegable, such as the payment of dividends.

The general corporation laws adopted by most countries in the world provide that the management of the enterprise is the responsibility of the boards of directors (Mace 1971:6). Even though the corporation laws do not specify the functions of directors beyond the general description that the corporation "shall be managed" by a board of directors, it can be recognized that the core of the laws relating to boards is for the protection of the investors and also to carry out the wishes of the owners. According to Bacon and Brown (1975:4) the responsibilities of boards of directors as specified in most by-laws include:

(i) decide on the long-range plans, objectives, policies and strategies of the firms;

(ii) decide on matters affecting the company's capitalization structure, resource allocation and other major financial issues;

(iii) decide on diversification programs, mergers and acquisitions, and divestitures;

(iv) decide on executive compensation; and

(v) decide on management appraisal and development.

Based on the above responsibilities of boards of directors, the major functions of boards can be classified into two categories. The first is the trusteeship function, that is, to act as the trustee for the owners of the enterprise.

The trusteeship function of boards of directors means that the boards, in performing their tasks, take into consideration the interests of the owners and also the interests of all the constituents that have a stake in the company's success. This function is consistent with the "stakeholder theory" which holds that the objective of the firm should be formulated by balancing the various interests of the "stakeholders" of the enterprise. Based on this theory, boards of directors have to consider not only the interests of the stockholders, but also those of the managers, employees, customers, and suppliers when deciding on the company's objectives, policies, and strategies (Ansoff, 1965). The view expressed by Ansoff is supported by Eilon (1974) who indicates that the board of directors of a company is entrusted with the responsibility of acting in the interest of that company. The company encompasses its employees, and apart from responsibilities to its shareholders the board has responsibilities to employees, to customers, to suppliers, and to society at large. Elion identifies appropriate activities of boards of directors as policy and objective setting, strategy delineation and corporate planning, control, and evaluation. The ideas expressed by Ansoff and Elion are supported by Mills (1981) who says that boards of directors have the ultimate responsibility for corporate performance. Mills elaborates on the term responsibility which includes: the law at large; the customers; the community; the shareholders; and the creditors and lenders.

The desirability of considering widespread interest groups is the concern that the interests other than those of the stockholders must be considered if the long-range interest of ownership is to be protected. In other words, a corporation operates in a comprehensive environment and if the interests of the owners are to be properly protected, they (the owners) must be responsive to the interests of the others in the environment. This response will benefit the owners in the long run because it reflects their interests toward all the constituents of the corporation. Juran and Louden (1966) contend that if the owners are not going to consider the interest of their constituents, intervention by the government and other pressure groups will be prevalent. Intervention by these groups will not be beneficial to the owners (Drucker, 1974).

The second basic responsibility of boards of directors is the strategic management function -- that is securing effective management. Bacon and Brown (1977:3- 17) in their research involving boards of directors in the United States, Canada, England, France, Sweden, West Germany, Japan, Turkey, and Venezuela show that the boards of directors' responsibilities and functions include approving long-range corporate strategies and objectives, allocating major resources, making major financial decisions, and deciding on top management performance appraisal, succession, and compensation.

The above functions and responsibilities illustrate that boards of directors are involved in strategic management. According to Koontz (1972), boards of directors represent the pinnacle of management in all kinds of enterprises. According to Vance (1983), boards of directors have to ensure that long-term strategic objectives and plans are established and that the proper management structure is in place to achieve these objectives, while at the same time making sure that this structure functions to maintain the corporation's integrity, reputation, and responsibility to its various constituencies. These findings and views imply that boards of directors have a role to perform in facilitating the company's attainment of a certain level of performance. The findings of Bacon and Brown (1977) had been conceptually expressed by Koontz (1967), Baker (1945), Louden (1982), Vance (1983), Wheelen and Hunger (1983), and other researchers in the field.

Even though the above statements illustrate the importance that leading authorities in management attribute to boards of directors in facilitating organizational performance (Koontz, 1967; Lynch, 1979;

Louden, 1982), most research has been normative and prescriptive in nature. There are, however books that are more descriptive regarding on the duties of directors and how they should function, and other treatises on the legal liabilities of directors (list of books includes Baker, 1945; Brown and Smith, 1947; Koontz, 1967; Louden, 1982; Vance, 1983). Empirical works showing the relationship between boards of directors' strategic management functions and organizational performance are minimal (Lynch, 1979). Louden (1982) contends that board effectiveness is really about corporate effectiveness, which in turn, means management effectiveness. The views expressed by these authors show that boards of directors do have a role in affecting the performance of firms. The importance of the strategic management functions of boards of directors has led to demands from many quarters for boards to improve their monitoring of company performance (Tashakori and Boulton, 1983). The views expressed by the above researchers and authors are based mainly on conceptual contention, and Brown and Weiner (1984) note the absence of a good body of research on general practices and procedures relating to a board's role in corporate governance and performance.

Since it is contended that the responsibilities and strategic management functions of boards of directors do contribute to attaining a high level of organizational performance (Koontz, 1967; Louden, 1982; Bachand, 1981; Lynch, 1979; Chitayat, 1980; Tashakori and Boulton, 1982), it is felt appropriate and justified that empirical research showing the relationship between boards of directors' strategic management functions and organizational performance will contribute to enriching the literature on strategic management in the aspects of boards and corporate governance and performance.

PURPOSE OF THE STUDY

The purpose of this research is to shed light on the organizational role of boards of directors of Malaysian public enterprises by investigating the boards' strategic management functions and their relationship with organizational performance. The study, hopefully, will provide some indication and direction on the roles of boards of directors on organizational performance. From the perspective of theory development, the study is an attempt to identify whether another variable, which is called "boards' strategic management functions", has a role in explaining organizational performance.

Lynch (1979) in her exploratory research contends that boards' strategic managerial functions, if activated, can become factors in explaining organizational performance. But her work is based on a case study of two companies which are conveniently selected. This approach faces the problem of limited generalizability. In addition, the study does not include any supportive statistical analysis to substantiate the contention.

Bachand (1981) in his exploratory study of Canadian public enterprises says that boards of directors perform an active and effective role in the management of the enterprises. His study, however, focuses only on a comparison between the boards of directors of the public enterprises and private enterprises. This research also lacks supportive statistical.

The attempt of this study is to test whether the variable (boards' strategic managerial functions) has any relationship with organizational performance. Past research on organizational performance has focused on environment (Lawrence and Lorsch, 1977; Burns and Stalker, 1961; Emery and Trist, 1965), technology (Woodward, 1965; Perrow, 1967; Thompson, 1967), size (Blau and Schoenherr, 1971; Child and Mansfield, 1972; Meyer, 1972), and types of personnel (Maslow, 1970; McGregor, 1957; Herzberg, 1959; Likert, 1967).

This study also attempts to contribute in evaluating the significance of boards of directors in the management of public enterprises in Malaysia. Since the boards of directors of these public enterprises are legally the management of the enterprises (Mei ling, 1984), this study has implications for the management of public enterprises in developing countries. This point is significant because public enterprises are given the task of promoting economic development in Malaysia.

The importance of management in the process of economic development has been identified by a number of researchers. Hagen (1962:36) reports that some economic development theorists have recognized that the role of management as a determining factor in the process of economic growth. Drucker (1954:11-12) points out that,

> managing goes beyond passive reaction and adaptation. It implies responsibility for attempting to shape the economic environment -- for planning, initiating and carrying through changes in the economic environment -- for constantly pushing back the limitation of economic circumstances on the enterprise's freedom of action.

This view indicates that management is an important activity associated with economic progress. Harbison and Myers (1959) consider management as an economic activity resource along with labor, capital, and land. As such, qualified and effective managers become almost indispensable in a developing country like Malaysia. Under this condition, and with a large investment in public enterprises, high quality management needed to run these enterprises has become a strategic factor. Success or failure of management at the micro level will cause the ultimate success or failure of the overall plan at the macro level, which constitutes the sum total of these individual performances.

The implication of the above studies makes it clear that the strategic management functions of boards of directors as the top management team, affecting economic growth in Malaysia, must be given greater attention. While progress is being made in transferring western and foreign technical know-how, a general neglect of the managerial aspect of economic development is evident. As such any attempt to investigate the strategic management functions of boards of directors and their relationship with organizational performance is a purposeful exercise.

THE STUDY

The Malaysian government, following a race riot in 1969, took bold actions to remedy the uneven distribution of income and wealth among the three principal races -- Malay, Chinese, and Indian. These actions were incorporated in the New Economic Policy (NEP) which was announced and implemented in 1971. The NEP has two main objectives: (i) to reduce and eradicate poverty by increasing employment opportunities, (ii) to accelerate the process of restructuring the society (Malaysia, 1970).

One of the bold actions taken was intensifying in the use of public enterprises on all fronts of development. In particular, the role of public enterprises was not only to stimulate and promote development but also to actively participate in all economic activities as an equal partner to the private sector in economic development. The period after 1969 saw the establishment of numerous public enterprises of the regular company type, either wholly owned by the government or as a joint venture with the private sector. Even with the large number of public enterprises, no studies have been conducted on the managerial functions of the boards of directors of these enterprises. This study attempts to shed light on the managerial functions of top management -- board of directors -- in public enterprises of the industrial sector.

The study of the boards of directors will be confined to the industrial sector because industrialization generally plays a big role in the economic development of developing countries. In addition, the industrial sector has become strategic in a developing country like Malaysia where growth in the agricultural sector is limited.

Public enterprise is defined in this study as "any government activity organized in the form of a corporation or company -- whether established by a special act of Parliament or State Assembly, or by registration under the Company Act -- in which the government or any agency thereof has the controlling interest, usually 100 percent though not always" (Robinson, 1976: 10). Based on Robinson's definition, public enterprises include all federal statutory bodies, all state statutory bodies, all government owned companies, and all subsidiary companies by any of the foregoing. (Appendix "A" provides more information on public enterprises).

Based on the definition and the rationale for public enterprise in Malaysia, some considerations are made regarding boards of directors' strategic management functions and organizational performance. Although government-owned companies were used as the sample for this study, these companies must abide by the same statutory requirements as the private corporations because both have to register under the Company Act of 1965. This fact implies that the criteria for boards' managerial functions which are discussed and described in the literature concerning private corporations are suitable for evaluating boards of directors' effectiveness in the case of companies that are wholly owned by the government (Chitayat, 1980).

There are reasons for creating government-owned companies. The first reason is that the creation of public enterprises is aimed at fulfilling an important aspect of government policies. Government-owned companies are used as an instrument to implement NEP. These companies must be effective in performing their activities so as to facilitate the restructuring of society and the eradication of poverty objectives. Companies which are successful will be sold/transferred to "Malay" entrepreneurs in order to accelerate the "Malay" participation in commercial and manufacturing activities, the profitability of these companies is a crucial indicator of performance. Thus, the use of profitability criteria to evaluate performance of public enterprises is justified. In addition, the evaluation criteria on eradication of poverty and the restructuring of society have not been conceptualized at the organizational level (Milne, 1980).

The boards of directors of Malaysian public enterprises are responsible for the policy and the general direction of the enterprise (Abdul Rahman, 1982). In addition, the boards are also responsible for approving all programs and projects to be carried out by the enterprise. Given these responsibilities, the boards of directors have important and crucial roles in the management of the public enterprise. Unlike private sector corporations, where the boards of directors are normally composed largely of people who have substantial financial ownership and interest in the corporations, the boards of directors of public enterprises are the custodians of public interest, since the shareholders are the general public, in collective terms, and the government, in operating terms.

Given the above responsibilities, boards of directors are expected to provide the effective linkage between the government and the operating management of the public enterprises. They are expected to synthesize the commercial and economic activities of the enterprise, with the broader interests of the government and the general public. While the government will lay down the broad policy objectives to be pursued, the functions of the boards of directors are to formulate the operative policies, objectives, and the specific plans, programs, and projects for the realization of the official or government policy objectives. As such, the boards of directors guide and supervise the implementation of appropriate public policies and development plans, as they pertain to the roles and responsibilities of the particular public enterprise.

Based on the responsibilities which are assigned to the boards of directors, it can be said that the government does delegate extensively to them to ensure the execution and implementation of government policies and objectives. As such it is safe to say that the boards of directors of public enterprises are expected to be effective in performing their trusteeship and managerial functions. Bachand (1981) in his study of the Canadian public enterprise concludes that boards of directors are effective and active in executing their functions. The study by Bachand also shows that the boards consider themselves as contributing toward the improvement of the people and the country. This consideration acts as a driving force for the boards to be active and effective in executing their functions.

This study attempts to identify the influence of boards' strategic management functions on organizational performance. The literature has been focusing on prescribing the strategic management functions of the boards but attempt to test the influence of these functions on organizational performance is lacking (Lynch, 1979).

ORGANIZATION OF THE DISSERTATION

Chapter II reviewes the literature on the concepts and research on boards of directors and organizational performance. The review is meant to synthesize the various works on the subject and to identify the theoretical/conceptual underpinnings of the strategic management functions of boards of directors. Since there are a number of approaches to the subject of organizational performance, justifications are given as to the selection of the goal attainment model for organizational performance.

Chapter III outlines the research methodology used for this study. The chapter specifies the organization of the study, the data used for the dependent and independent variables, and the methods used to analyze the data. Correlation, multiple regression, and t-test analyses were used to test and explain the hypotheses.

Chapter IV reports on the analyses performed on the data of the study. Results of the correlation, multiple regression, and t- test analyses were reported to verify the hypotheses.

Chapter V discusses the findings of the study and the conclusions that could be drawn from these findings. In addition, the limitations, implications and areas of potential research on the subject are also indicated.

SUMMARY

This chapter justifies the need for an empirical research to test the relationship between boards' strategic management functions and organizational performance. The purpose and what the study will contribute in term of theory development and managerial practices are also indicated.

CHAPTER II - LITERATURE REVIEW

INTRODUCTION

This chapter reviews the conceptual and theoretical works that have been done on boards' strategic management functions, and organizational performance. The contributions of prominent authors/ researchers on the subject are discussed, and a synthesis on their works is prepared. The synthesis facilitates in developing the model of the study. The concept of organizational performance is also reviewed. This concept has a number of approaches or schools of thought, and there is no consensus on which is correct (Child, 1974). This implies that there is some ambiguity on the concept of organizational performance.

Child (1974) indicates that the level of performance achieved by an organization is something very hard to determine and contends that the problem is extremely complex. This view is shared by Boswell (1973) who considers that a vast number of influences on performance are at work. Some of these influences are quantifiable, others are not; some are external to the organization, others are internal and managerial. Georgopoulos and Tannenbaum (1957) consider that organizational performance (sometime called organizational "success" or organizational "worth" or organizational "effectiveness") is one of the most complex and least tackled problems in the study of organization. Within recent years, organization theorists have come to the conclusion that there is no universal "best way" to organize and that not all organizational structures are equally effective (Burns and Stalker, 1961; Lawrence and Lorsch, 1977; Woodward, 1965). Rather, organizations have come to be viewed as open systems that must be designed so as to best handle their respective contingencies (Thompson, 1967). As a result of this perspective, considerable research has been directed toward attempting to isolate the factors upon which an organization's structure may be contingent. Although a number of such variables have been identified (Pugh et al., 1969), the vast majority of research has focused on the respective roles of size (Blau and Schoenherr, 1971; Child and Mansfield, 1972; Meyer, 1972; Rushing, 1980), technology (Woodward, 1965; Perrow, 1967; Thompson, 1967; Mahoney and Frost, 1974), and environment (Burns and Stalker, 1961; Emery and Trist, 1965; Lawrence and Lorsch, 1977).

Steers (1977) suggests that contributing factors to the ultimate success of an organization include the managerial policies and practices. Managerial policies and practices are concerned with how variations in managerial policies, practices, and style facilitate or hinder organizational success. In general, management plays a central role in the success of an enterprise by planning, monitoring, decision making, coordinating, controlling, and facilitating goal-directed activities (Mintzberg, 1973). It is management's responsibility to ensure that the structure of the organization is consistent with, and advantageous for, the prevailing technology and environment (Mahoney and Frost, 1974). It is also management's responsibility to set up suitable reward policies and systems so that employees can satisfy their personal needs and goals while simultaneously pursuing organizational objectives (Galbraith, 1977). As technological process becomes more complex (Perrow, 1967) and as the environment becomes increasingly hostile and complex (Lawrence and Lorsch, 1977), the role of management in coordinating people and processes for organizational success becomes extremely important. This factor (managerial policies and practices) indicates that the top decision makers of an organization can contribute significantly to the success of an organization if they effectively perform the managerial functions that are assigned to them. The top decision makers of an organization in terms of determining the organization's objectives and policies are the boards of directors. The regulatory provision relating to incorporation specifies that boards of directors "manage" the organization. This implies that boards of directors, as the representatives of the owner(s), have to consider the viable long-term policies, objectives, and strategies of the organization (Mace, 1971; Andrew, 1978; Vance, 1983; Louden, 1982; Chandler, 1962).

Even though the vast majority of research has focused on size, technology, and environment as factors that influence organizational performance, research shows that there is no consensus regarding the effects of these factors on organizational performance (Ford and Slocum, 1977). In the case of size and organizational performance, the relationship is not clear. Although some have found a strong relationship and argue for its causal nature (Blau and Schoenherr, 1971; Hickson et al., 1969; Meyer, 1972), others have found no such relationship or have argued that the relationship is a consequence rather than a case (Aldrich, 1972; Hall, 1967; Rushing, 1967).

Woodward (1965) pioneered work on the relationship between technology and structure. She concludes that the success of an organization depends on the appropriateness of an organization's structure for a particular operation's technology -- the "technological imperative." Blau et al. (1976) support Woodward's findings. There are also others whose works support the technological imperative perspective (Perrow, 1967; Lynch, 1974; Van de Ven and Delbecq, 1974; Hage and Aiken, 1969). An equally large number of research efforts question the importance of technology (Hickson, 1969; Pugh et al., 1969; Child and Mansfield, 1972; Mohr, 1971).

Another group of researchers and theorists emphasizes that organizations must adapt to their environment if they are to maintain and/or increase their effectiveness (Burns and Stalker, 1961; Lawrence and Lorsch, 1977; Thompson, 1967; Emery and Trist, 1965). These theorists contend that because organizations are dependent on their environment, such dependence creates uncertainty for the managers. Since managers cannot eliminate uncertainties, they look for options within their control to reduce them. One of these options is designing the organization so that managers will be able to respond to the uncertainties. There are also research which indicates that the environmental imperative is just not in agreement with reality (Child, 1972; Galbraith, 1973).

The brief discussion above shows the factors that are offered as relevant to organizational performance. The focus of this study is to identify and explain the relationship between managerial practices and organizational performance. Managerial practices refer to the strategic management functions of boards of directors -- the group that many writers claimed is entrusted to "manage" the organization on behalf of the owners.

BACKGROUND ON BOARD OF DIRECTORS

Different countries have different names for the body that supervises top management, counsels it, reviews its decision, and appoints men into top management positions. These names include board of directors, supervisory board, and conseil d'administration (Drucker, 1974:627). By whatever name, the existence of a board of directors in any corporation is to satisfy the requirement of the laws related to the establishment of the corporation. This requirement exists in virtually in every part of the world (Koontz, 1967:1). The laws under which corporations are established generally require that the corporations be "managed" by a board of directors. This provision shows that whenever power or funds have been entrusted by a group to individuals, managers, or entrepreneurs, the practice is to establish a board to see that the resources given to an enterprise are well managed. It is therefore logical and practical that boards of directors be placed in the position of managing the company, or more accurately of seeing to it that the company is well managed. This approach implies that a board should undertake certain managerial functions itself and regularly pursue other activities to assure itself that the entire company is so managed as to achieve the appropriate goals set by the board. As such if, boards of directors are to discharge their managerial responsibilities, every board members should understand the functions of management and the principles underlying them. In other words, according to Koontz (1967:10-11), effective boards of directors must:

(i) comprehend what management is if they expect to be responsible for the managing of a company;

(ii) understand the elements and fundamental principles of management if they are to have some guidelines as to what effective management in their various companies implies; and

(iii) clearly appreciate their managerial role as well as the role of the top officers to whom they will necessarily entrust most of the actual operating management of the company.

Without this knowledge it is hard to see how a board of directors can competently discharge its responsibility. Based on the legal provision (i.e. the corporation law) in the business corporation, a board of directors stands in the place of the real owners of the corporation, the stockholders. In the case of a government corporation (for example a public enterprise), the board is appointed to represent the interests set by the government. As representatives of the stockholders, the directors have the authority to exercise the power of the corporation, subject only to restraints imposed by the laws of the state. This power is conferred upon them by the shareholders through the article of incorporation or company by-laws. As such, like any possessor of organization authority, directors have the responsibility to use their authority and power lawfully and in the best interest of the stockholders.

THE LITERATURE ON BOARD OF DIRECTORS

The early literature on boards of directors focused on the interpretation of court rulings. Later literature became critical as a result of the economic depression of 1929-1932 which resulted in heavy losses by investors, and also various corporate malpractices (like the Texas Sulphur case; the 1970 Northrop Corporation scandal) and bankruptcies due to poor management and lack of leadership (like 1970 Penn Central case; the 1969 Lockheed Corporation bail out) (Vance, 1984). The public concern with today's corporate form and the directorships that possess final responsibility for its operation have exerted both legal and societal pressure on the conduct and operation of directors. There are demands and requests to the liability of directors and the trusteeship function of boards (Drucker, 1974; Vance, 1983; Louden, 1982; Mace, 1976).

Most of the books and articles on boards of directors have been prescriptive in nature, focusing on what the duties of directors should be and how they should function. Others are treatises on the legal liabilities of directors (Pfeffer, 1972:219). The reason for this trend in the literature is the assumption made in management theories that the interest of the investors must be protected. This protection is against: the promoter who would knowingly sell stock for more than it is worth; executives or directors who could misappropriate corporate assets; a harmful collusion between management and majority shareholders; and "insiders" whose privileged information could allow them to knowingly buy shares from investors for less than their worth (Lynch, 1979).

The need to protect investors has grown because of the dwindling control of ownership as hypothesize by Berle and Means. According to Berle and Means (1968: 66);

> As the ownership of the corporate wealth has become more widely dispersed, ownership of that wealth and control over it have come to lie less and less in the same hands. Under the corporate system, control over industrial wealth can be and is being exercised with a minimum of ownership interest. Conceivably it can be exercised without any such interest. Ownership of wealth without appreciable control and control of wealth without appreciable ownership appear to be the logical outcome of corporate development.

Concerned with this development, Berle and Means consider that the growth in the size of the industrial unit, the widening division of ownership, the pivotal role played by the proxy system, and the potential loss of control by the owners or investors will have an immense effect in the management of corporation. They contend that the enormous power held by those who manage the corporation must be regulated not only for the public good but also for the protection of those whose investments are involved (Berle, 1968: 66-84).

Drucker (1974) relates the concern of Berle and Means to the tasks that the board of directors should perform. Drucker (1974: 630) contends that,

> it is becoming increasingly clear that top management will not -- and in the large corporation must not -- be permitted to operate without an effective and strong board. The alternative to top management developing an effective board for its own needs and those of enterprise, is the imposition by society of the wrong kind of board, especially on the large corporation. Such an imposed board will attempt to control top management and to dictate direction and decision. It will indeed become the boss. It will not, indeed, cannot act in the interest of the enterprise. The first sign of this is clearly around us -- indeed, it may be too late to reverse the trend.

Drucker's caution is a valid one considering what happened in some European countries such as West Germany where the boards of large companies had imposed upon them a policy called "co-determination." This policy requires companies to appoint workers to sit on the boards. The same thing happened in Sweden where the government appoints members to the boards of major banks. In the United States there has been mounting pressure to appoint board members representing women, the poor, Blacks, and so on. Since the purpose of these appointees is to present special interests, their role focuses on making demands for their groups' special interest and may not be very concerned with, or responsible for, the enterprise. In fact, their trust is not to the enterprise but to their constituents outside. Drucker suggests that before intervention by various interest groups penetrates a corporation, it is appropriate for the corporation to have an effective board of directors which considers the interests of the various stakeholders of the corporation. In addition, intervention by various interest groups for their own needs and interests can disrupt the operation of the corporation.

RESEARCH ON BOARDS OF DIRECTORS

This section looks at some of the works of the prominent authors and researchers in the area of boards of directors. The contributions of these people facilitate in developing the construct to test the relationship between boards' strategic management functions and organizational performance.

BAKER

Based on an examination of four successful major corporations, Baker (1945) found that boards of directors have two responsibilities, namely administration and trusteeship. Administration refers to activities in getting things done, administrative know-how, or the drive to achieve profits. The responsibility of trusteeship relates to keeping a balance among the interests of stockholders, employees, customers, and the public.

Baker broadens the concept of trusteeship from protecting the stockholders to representing other interests such as employees, customers and the public. The role of trusteeship as representation requires boards to have integrity, ability, alertness, and interest. This implication is that board members must have these qualities and characteristics, and that these qualifications can contribute to corporate success (Baker, 1945: 136).

On the question of the boards' role in administration, Baker focuses on the aspects of boards' participation and boards' operation. The problem how to strike a balance between the obligation "to manage" and the necessity to avoid disruptive interference in the work of the executives to whom the majority of the tasks of management are delegated. Baker contends that the basic functions of an effective board of directors in discharging its responsibilities for prudent management are categorized into four areas. First, the boards select the chief executive and senior officers and make certain that able and competent executives are being developed. Second, the boards delegate to the chief executive authority for administrative actions. Third, the boards discuss and approve objectives and policies of broad corporate significance, such as pricing, expansion, new product development, as well as payment of dividends, changes in the capital structure, loans, and lines of credit. Fourth, the boards checks on the progress of the company not only as to the immediate profit but also as to the discharge of its trusteeship responsibilities. Budgets, reports, inspections, and other controls aid directors in carrying out this function and serve as the basis for asking discerning questions from an independent point of view. Also, directors arrange for, control, and follow up on outside audits and in general maintain vigilance for the welfare of the whole enterprise (Baker, 1945: 131-132).

COPELAND AND TOWL

Copeland and Towl (1947) claim that the responsibility of a board is not merely to check on current operation, but to take long-range view of the corporation's affairs in order to make sure that the interest of stockholders, employees, and others are not sacrificed to the expediencies of the moment. This approach implies that it is incumbent on the board of directors to preserve the vigor and vitality of the corporation despite changes in the personnel of the operating force, and even though external forces necessitate continual adaptation to new situations. This view would require broadening the trusteeship function from protection against wrong-doing to protection against managerial expedience -- achieving performance in the present at the expense of long-term results. These recommendations show that boards can be seen as part of the adaptive mechanism of the corporation. This approach means that a board's participation is expanded to include looking inward at the organization, and outward at its environment. The board's objective is then to help management define changes that should be made, and also to serve the purposes of the shareholders, employees, and others who have a stake in the operation of the corporation. Based on this idea, Copeland and Towl suggest the following functions of the board of directors:

1. selecting the chief executive,

2. participating in making policies,

3. checking on the results of operation,

4. taking unpleasant action such as disciplinary action and direct intervention in the management of the company,

5. asking discerning questions - those that question action or call for a thorough review of policies.

LYNCH

Exploratory research by Lynch (1979) provides comprehensive information on the role and functions of an active, effective board. According to Lynch, five factors that determine an active, effective board of directors. In this approach boards are:

(i) involved in evaluating and directing the organization and its operation, and participate in the critical decisions of the corporation -- those that determine what business the company is to be and what kind of company it is to be;

(ii) informed about the organization and its operation not just fully but on a timely basis;

(iii) independent of the chief executive's authority and of the firm -- financially and professionally -- to the extent necessary for objectivity in both evaluation and actions;

(iv) equivalent if not superior to the executive groups in the skills and knowledge needed to guide the management and its operation successfully; and

(v) responsive to the realities of its own environment -- the legislation, regulation, and expectations affecting corporate governance (Lynch, 1979:367- 368).

These factors are similar to those suggested by Baker and by Copeland and Towl in terms of the trusteeship and administration roles of the board of directors. In addition, Lynch's work attempts to propose and suggest that it is important and beneficial to have an active and participative board. The existence of this type of board will make the operating executives analyze and articulate their plans, proposals and suggestions in greater depth because of the high quality of discussion that will be generated by the active and participative board of directors on any submissions for decision. Ultimately this tendency will have a positive effect on organizational performance.

ANDREW

Andrew (1980) has done extensive work in appraising the responsibility of the board of directors. He indicates that a responsible and effective board should require of its management a corporate strategy, review the strategy periodically for its validity, and use it as the reference point for all other board decisions. This requirement is valid for a board of directors because with the corporate strategy, the company is able to differentiate from its competitors and develop its present and future market opportunities, distinct competence, competitive advantage, and management personal aspiration and values (Ansoff, 1965). In addition, the presence of the corporate strategy ensures that the executives are carrying out the functions required for long-term viability and growth of the organization. A corporate strategy also enables the board of directors to monitor the functions of the executives, namely by providing a system of communication, formulating and defining the organizational purpose, and promoting and securing the individual willingness to serve the organization (Barnard, 1938).

The main contribution of Andrew is his emphasis on the importance of corporate strategy in organizational performance and on the board of directors as the body that can require the operating management to develop a comprehensive corporate strategy for the organization.

DRUCKER

The work of Peter Drucker (1974) on boards of directors is related to that of Andrew. Drucker claims that boards of directors have to perform two major tasks. The first task is that of a review body. This task refers to the role of boards of directors in ensuring that top management thinks of what the company's business is, what its objectives and strategies are, and looks critically at the planning of the company, its capital investment policy, and its budget. The second task is to remove top management that fails to perform. Since top executives are paid for performance, it is the duty of the boards to review their performance and to remove those who do not measure up to expectations. These two tasks are similar to the suggestions made by others in their emphasis on the importance of the roles played by boards of directors in trusteeship, administration, and monitoring.

MACE

Mace (1971;1976) provides two different sets of findings on the functions of boards of directors. Mace (1971) found that the chief executive officer -- not the board -- determines what the board does and does not do; and that boards do not establish company objectives, ask discerning questions, or measure the performance of the chief executive officers. In the same research Mace found that most of the boards of directors make decisions only in the event of a crisis. Based on this research he goes so far as to say that there is a considerable gap between the myth and reality of the roles of boards of directors. Mace (1976) indicates, however, that the role of boards of directors ought to include: evaluating the performance of the chief executive officer against the objectives established; reviewing and approving major corporate objectives, policies, budgets, and strategies as initiated by the top operating management; and assuring that the company complies with all national, state, and local laws affecting the enterprise. Mace's suggestions are supported by the "Roundtable statement on board of directors" (1978) which indicates that the core functions of boards of directors are to: select the chief executive officer and his principal management associates; review the financial performance of the corporation and allocation of its funds; and the development of policies, objectives and strategies of the corporation. The "Roundtable" refers to a group of top executives from the largest United States corporations. The primary role of the group is to discuss and propose suggestions to facilitate the effective and efficient operationfor corporations. The fact that such suggestions as to the roles of boards of directors come from a group of chief executives implies that there is a serious tendency among chief executives to activate the role of boards of directors in the management of the corporation.

The principle of check and balance between these two bodies (i.e. board of directors and the chief executives) will facilitate the effective operation of the corporation according to Drucker (1974). This contention is supported by Geneen (1984:28-35) who indicates that the board of directors is supposed to represent the interest of the shareholders by overseeing and evaluating the performance of the operating management and taking corrective action if performance is not satisfactory. This view implies that the board's responsibility is to sit in judgment of the operating management, especially on the performance of the chief executive, and to reward, punish, or replace the management as the board sees fit.

KOONTZ

Koontz (1967) is another major contributor on the subject of boards of directors. According to Koontz, boards of directors have an important social and economic function: to see that the enterprise is well managed and that the interests of those they represent are considered. Based on this contention, Koontz (1967) suggests a number of basic responsibilities which appear to be common to all boards of directors. These responsibilities can be divided into two categories: trusteeship and managerial responsibilities.

The trusteeship responsibility is the role of safeguarding of the company's assets in the long-term interest of the shareholders. The strategic management responsibilities are classified by Koontz (1967) into four areas: decision making; planning; control; and board operation. In the area of decision making, Koontz (1967) suggests that boards of directors have to consider the following aspects: determination of company objectives; approval of major policies; approval of company organization; approval of budgets; approval of major programs; selection of outside auditors; selection of sales representatives; and matters requiring shareholders. In planning, two aspects are indicated: analysis; and forecasting. Analysis refers to activities to fulfill the requirement of systematic search for and evaluation of opportunities, determination of competitive alternatives, and the need to have studies which can benefit the company. Forecasting (futurity) refers to actions which touch on long-term forecasting of sales, profit, technology, and investments. Control refers to the activities of reviewing and making comparison.

Review encompasses activities of reviewing of company policies, programs, and overall performance. The role of making comparisons refers to the task of comparing current results against those of previous, budgeted, and competitors' results. Board operation refers to the manner in which boards organize themselves to perform their managerial functions. The factors considered under this area are the types of committees formed by the boards, and the information network available to boards. Koontz's suggestions indicate that boards of directors play a key organizational role in facilitating the tasks performed by the chief executive by clarifying the objectives, strategies, policies and plans for the corporation.

The research mentioned above can be categorized as conceptual (Copeland and Towl, 1947; Drucker, 1974; Andrew, 1980; Koontz, 1967; Vance, 1983; Louden, 1982) and exploratory (Mace, 1971, 1976; Lynch, 1979; Baker, 1945; Bachand, 1981) attempts to determine the strategic management functions of the board of directors. The suggestions of almost all these researchers tend to focus on the need to develop boards of directors that can perform theirstrategic management functions effectively. These suggestions are based on the contention that boards of directors which perform their strategic management functions effectively can enhance organizational performance. Besides the works which are mentioned above, there are others who prescribed the strategic management functions of the boards of directors (Brown, 1972; Feur, 1959; Lewis, 1974; Wammack, 1979; Lagges, 1982).

PRICE

Price (1963) analyzes the impact of boards of directors on the effectiveness of two government agencies. Effectiveness refers to the degree to which organizational goals are achieved. The research found that the boards of directors of the two agencies contribute toward organizational effectiveness. Price also found that the main function of the boards of directors is decision making in the areas of policy, objectives, and strategies of the organization. Although the sample of the study is only two, Price's work shows that boards of directors perform certain strategic management functions. In this way his work supports the suggestions of the researchers mentioned above. As such it is appropriate to have more empirical research to validate the prescriptions and descriptions of the various authors and researchers on boards' strategic management functions on organizational performance.

The review of the literature on boards of directors provides the factors to be considered as the boards' strategic management functions. Since the focus of this study is to identify and explain the relationship between boards' strategic management functions and organizational performance, a model is presented below to show the relationship between these two variables.

```
Directives
from owner/s
         |
         |
         |
       \|/
Board of                               Board's
Directors  -------------------->       Managerial
         |                             Functions
         |
         |                                  |
         |                                  |
         |                                  |
         |                                  |
         |                                \|/
         |                             Activities
         |
         |                                  |
         |                                  |
         |                                  |
       /|\                                  |
         |                                \|/
         |                             Level  of
         |                             Performance
         |
         |                                  |
         |                                \|/
    ----<-----------------------------------

        Information on Performance
          and other development
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Figure 1. Model of Board's Strategic Management Functions

The model indicates that the board receives directives from the owners of the corporation. The directives include broad objectives and priorities for the corporation to pursue. The board implements these directives by performing the four strategic management functions: decision making, planning, control, and board operation. By effectively performing these functions, the board directs and determines the activities of the operating management of the corporation. The results of the activities performed by the operating management will reflect the level of performance achieved by the corporation. The information on performance and other developments are regularly submitted to the board which, in turn, will take necessary actions to improve the level of performance of the corporation. The board is assumed to continuously performed its strategic management functions in order to facilitate the corporation achieved a certain level of performance.

SYNTHESIS OF THE LITERATURE ON BOARD OF DIRECTORS

Besides the research mentioned above, there are many other researchers, academicians, and practitioners who have expressed positive views on the strategic management functions of boards of directors. Wheelen and Hunger (1983) consider boards of directors and the chief executive officer as strategic managers of the corporation. Strategic managers are defined by Wheelen and Hunger as the people in the corporation who have direct responsibility to ensure that the corporation has objectives, policies, and strategies, and who also evaluate and control the results of the operation. Koontz (1972) considers that boards of directors represent the pinnacle of management in all kinds of enterprises. Vance (1983) indicates that a board of directors has to ensure that long-term strategic objectives and plans are established and that the proper management structure is in place to achieve those objectives, while at the same time making sure that the structure functions to maintain the corporation's integrity, reputation, and responsibility to its various constituencies. Lastly, Louden (1982) considers that board effectiveness is really about corporate effectiveness which, in turn, means management effectiveness. These views along with the works on boards of directors which have been discussed above show that boards of directors have the responsibility to ensure the long-term survival and viability of the corporation. This work implies that boards of directors have to be effective in performing their strategic management functions in order to fulfill their trusteeship and managerial responsibilities as the representatives of the owner(s) in the management of the corporation.

Board effectiveness can be defined as the degree to which the board of directors fulfills its responsibility to management within a given enterprise (Koontz, 1967). This definition means that an effective board of directors performs its required strategic management functions. Based on the literature review, boards' strategic management functions can be categorized into four major areas: decision making in the strategic decision areas (Mace; Drucker; Lynch; Copeland and Towl; Baker; Price; Andrew; Koontz), instituting of planning in the corporation (Andrew; Drucker; Lynch; Copeland and Towl; Baker; Koontz; Tashakori and Boulton), instituting of control in the corporation (Mace; Drucker; Copeland and Towl; Baker; Koontz; Price), and board operation (Koontz, Andrew, Baker, Drucker, Lynch, Vance).

Under the category of decision making, the decision areas which boards of directors have to be concerned with are identified as follow:

1. Determination of company objectives,

2. Approval of major policies,

3. Approval of company organization,

4. Approval of major plans and programs,

5. Approval of company budgets,

6. Approval of the selection of outside auditors,

7. Selection of sales representatives, and

8. Matters requiring shareholders' actions.

These eight areas are considered strategic because they are concerned with decisions that can influence the long-term survival of the organization. Since boards of directors have to be concerned with the success of the organization, they must actively involved in the decision making process of these eight major areas. This involvement does not mean that boards of directors have to formulate, plan, and design these decision areas, but they have to "decide on them." The operating management is expected to suggest and recommend to the boards of directors strategies for these decision areas. The boards then scrutinize the suggestions and recommendations to select and decide on those that are appropriate for the organization. Boards of directors exist to represent the interests of the owners, and as such they have legal and managerial responsibilities to scrutinize the suggestions and recommendations of the operating management in order to maximize returns to the owners. The works of Koontz (1967), Louden (1982), Vance (1984), Andrew (1980), Drucker (1974), and others indicate the importance of boards of directors being actively involved in deciding on these decision areas.

The second strategic management function of boards of directors is the role of instituting a planning system for the organization. The boards do not formulate the planning system, but by their actions they require operating management to engage in appropriate planning functions. For instance, formally requiring the operating management to submit systematic search for and evaluation of opportunities for new investments and markets will make the operating management performed planning activities. The more analysis performed by boards' members on any proposal submitted by the operating management, the greater the tendency for the operating management to search for more information to generate possible solution alternatives. In addition, boards of directors can also institute the importance of planning in the organization by requiring the operating management to have some planning horizon that requires management to conduct long-term forecasting of sales, technology, investments, etc. The works of Koontz (1967), Louden (1982), Andrew (1980), Tashakori and Boulton (1983), and Drucker (1974) indicate the roles which boards of directors can perform to ensure planning in the organization.

The third strategic management function is the role of instituting control for the organization. Control refers to activities that check the results of the operation of the organization, for example by comparing current and previous results. The functions of control extend beyond the comparison of financial results. Koontz (1967), Drucker (1974), Price (1963), Louden (1982) and Lynch (1979) contend that boards' control functions include the reviewing of established plans, policies, programs, and performance. The reviewing process must be performed periodically in light of current and anticipated results in order to ensure the results reflect company objectives.

Another factor that can be used by boards of directors to perform their managerial functions effectively is board operation. Since a board is a plural executive, it must organize itself to ensure that each and every member is aware of his role in the management of the organization.

This approach implies that members of a board take specific steps to ensure that the board meeting accomplishes its objectives. Boards of directors can increase the effectiveness of board meetings by creating various committees composed wholly of board members to scrutinize and analyze in greater detail the issues which can affect the organization's survival (Koontz, 1967). The role of committee is also to encourage more involvement of each individual director and to better utilize the directors' talents through in-depth discussion and scrutiny of the issues facing the organization. In addition, board operation can also be improved if the board requires the operating management to prepare appropriate agenda for board meetings. Appropriate agenda implies that, besides identifying the issues to be discussed, relevant information on the issues is also sent to the directors members prior to the meeting. This practice enables the directors to be conversant with the issues to be discussed and to be in a better position to make decisions. As such, the ability of boards to direct the operating management to prepare the necessary and relevant information can increase the effectiveness of boards' operation.

The foregoing synthesis identifies the strategic management functions which major writers on management indicate that effective boards of directors would have to perform in order to fulfill their roles as trustees and strategic managers. The underlying reason given by such writers is that by performing these strategic management functions boards can ensure that the organization is "doing things right and doing the right thing" (Drucker, 1974). In other words, boards of directors are expected to be managerially effective. In order to provide a better

Matrix for Contributors

by Author

Board Managerial Functions / Decision Areas	Andrew	Bacon & Brown	Baker	Copeland & Towl	Drucker	Koontz	Lagges	Lewis	Louden	Lynch	Mace	Price	Tashakori & Boulton	Wommack	Vance
Determination of objectives	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Approval of major policies	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Approval of company org	x	x	x	x	x	x	x	x	x	x	x		x	x	x
Aaproval of budgets			x		x	x			x		x				
Approval of major programs	x	x	x		x	x	x	x	x	x	x	x	x	x	x
Selection of outside auditor						x	x								
Selection of sales rep.						x									
Matters requiring share-holders' actions	x	x	x			x	x	x	x		x				x
Planning															
Analysis	x	x	x	x	x	x	x	x	x	x	x	x	x		x
Futurity (Forecasting)	x	x	x		x	x	x	x	x	x	x	x	x		x
Control															
Reviewing	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Comparison	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

	Andrew	Bacon & Brown	Baker	Copeland & Towl	Drucker	Koontz	Lagges	Lewis	Louden	Lynch	Mace	Price	Tashakori & Boulton	Wommack	Vance
<u>Board Operation</u>															
Use of Committee						x	x	x	x	x				x	x
Availability of information	x	x	x		x	x			x	x	x				x

picture of the contributions of the various researchers on boards of directors, a matrix below shows which researchers have suggested which managerial functions of boards of directors.

THEORETICAL UNDERPINNINGS OF BOARDS OF DIRECTORS

Based on the literature review, four strategic management functions of boards of directors are identified. These functions were discussed above. The literature on boards of directors, however, lacks real conceptual depth (Smith, 1958) because most of the research is based on case studies (Mace, 1971; Baker, 1945; Lynch, 1979; Bachand, 1981). This attempt to develop the theoretical underpinnings of boards of directors considers the context of boards' strategic management functions.

The functions of boards of directors can be summarized into two types of roles: trusteeship, and strategic management by performing certain managerial functions. The trustee role is specified in the laws relating to the incorporation of the company, and strategic management functions are derived from acting as the representatives of the owner(s) in managing the company. Since the trusteeship role is heavily influenced by the legal provisions and requirements, it is not included in this study. According to Lattin (1959), being the representatives of the owner(s), boards of directors have formal and legal responsibilities for controlling and maintaining organizational operation and effectiveness.

The strategic management functions of boards of directors depend on the power being delegated by the owner(s) and also the dispersion of ownership (i.e number of owners). This view is the basis of the hypothesis proposed by Berle and Means (1968) that as ownership is widely dispersed, the owners will lose control of the corporation and the operating management tends to have more power and control. But the reverse of the hypothesis by Berle and Means is also true. According to Zald (1967), where ownership is highly concentrated, boards' members representing the dominant group have greater influence in the management of the organization. This contention is supported by the work of Chandler (1982). This view implies that in organizations where the ownership is concentrated, boards of directors have more power and responsibility in performing their strategic management functions. This situation is prevalent in public enterprises where the government is the sole owner of the enterprises and the boards of directors are appointed by the government to be responsible for carrying out the functions of managing the affairs of the enterprises (Sadique, 1976).

Decision making is defined as the making of choices (Robbins, 1983). Decision making on the eight strategic areas can then be inferred as the choices which are concerned with the viable long term health of the organization (Chandler, 1982: 11). As the representative of the owners, boards of directors have to analyze and scrutinize the proposals submitted by the operating management on the strategic areas in order to reach the decisions best suited for the organization. In this respect, the use of group decision by the boards on complex tasks like administering an organization where there is no single right answer can tend to be more effective (Hall, 1971). The reason for this effectiveness is that the different opinions expressed by the directors can be used creatively, and the different points of view are sought out, heard, and encouraged. According to Holloman and Henderick (1972), disagreement can also help the group's decision because, with a wide range of information and opinions, there is a greater chance that the group will hit upon the more adequate solutions. This theory implies that the board -- a group comprised of individuals with relevant skills, knowledge, and experience -- will be able to deliberate and make appropriate judgments and decisions for the organization by providing a pool of resources for considering various strategies and alternatives. The objective of boards of directors in making the appropriate decision on the strategic decision areas is to ensure that the organization attains a high level of performance in the interests of the owners. As such it is hypothesized that there is a positive relationship between the involvement of the board of directors in the strategic management function of decision making in the strategic decision areas and organizational performance.

The second strategic management function is the role instituting planning in an organization. According to Kast and Rosenzweig (1974), planning is a function which provides the means by which individuals and organizations cope with the complex, dynamic, and ever-changing environment. This view implies that planning provides the organization with the necessary tools and information to face the dynamic environment and facilitates the organization's attainment of a viable long term health (Chandler, 1982). Planning can be considered a vital function of an organization both as a method of adapting to market forces and as a means of shaping the market and the total environment. Boards of directors do not design or formulate the planning system for the organization, but by requiring the operating management to submit or conduct long-term evaluation and forecasting of opportunities, boards are actually instituting planning requirements in the organization. As more analysis is performed by boards of directors on the activities of the organization, there is a greater tendency to seek the best probable solution and an increased likelihood the organization performance can be enhanced. The positive relationship between planning and organizational performance has been identified by Thune and House (1970), and Herold (1972). Therefore, it is hypothesized that <u>there is a positive relationship between the involvement of the board of directors in the strategic management function of planning and organizational performance.</u>

The third strategic management function of the boards of directors is instituting control in an organization. According to Litterer (1965:233) "control is concerned not only with the events directly related to the accomplishment of the major purposes, but also with maintaining the organization in a condition in which it can function adequately to achieve these purposes." This approach implies that the organizational control system can encompass many different forms, including financial, physical, and human resources. The control systems are meant to ensure that an organization's human, financial, and physical resources are utilized for tasks that are consistent with the needs and goals of the organization. The objective of ensuring that the goals of organization are met is certainly the concern of the boards of directors because the directors are responsible for ensuring that the operative goals of the organization are achieved. Thus, boards of directors must be conversant with and fully aware of what is going on in the organization, a situation that can be achieved through instituting control mechanisms. By reviewing current policies, programs, and the overall performance of the organization, and by comparing the current results with the budgeted and previous results boards of directors can become conversant on the operation of the organization. In organizations where boards consistently review current policies, programs, and the overall performance, it is expected that the operating management will keep track of problems, weaknesses, and strengths of the existing policies, programs and the overall performance (Koontz, 1967; Andrew, 1980; Drucker, 1974). This action by the operating management will enable them to identify the problems, weaknesses, and strengths of existing policies, programs and performance. Comparing the current results with budgeted, competitors', and previous results will also initiate the identification of problems with the current operation. These two activities which can be performed by boards of directors will help in the identification of problems that are faced by the organization. Thus, the performance of the organization will be consistently monitored, and strategies can be planned and developed to overcome problems as early as possible. Based on the above view, it is hypothesized that <u>there is a positive relationship between the involvement of the board of directors in the strategic management function of control and organizational performance.</u>

The fourthstrategic management function prescribed for boards of directors is board operation. This function refers to the manner in which the boards would organize themselves to perform their strategic management functions for the corporation. Boards conduct their operation through scheduled meetings. Boards of directors can enhance the effectiveness of meetings by requiring the operating management to prepare the agenda of the meetings appropriately and carefully, and also by requiring that appropriate and sufficient information be distributed to the members on a timely basis. The importance of information is consistent with the suggestion by Galbraith (1977) who conceptualizes that adequate information can enhance organizational performance.

Besides meetings, boards of directors can enhance their effectiveness by creating various committees comprised wholly of a board members to undertake specific duties and scrutinize issues in greater detail. Detailed scrutiny by the full board may not be feasible due to the time factor and the number of issues; therefore the creation of committees will enable the boards' members to be aware of the relevant issues related to the in-depth operation of the organization. This awareness and knowledge will facilitate the boards in performing their other strategic management functions effectively. Therefore, it is hypothesized that <u>there is a positive relationship between the involvement of the board of directors in board operation and organizational performance.</u>

CONCEPT OF ORGANIZATIONAL EFFECTIVENESS

The concept of organizational performance encompasses a number of approaches. This section reviews the concept, identifies the strengths and weaknesses of each approach, and justifies the selection of the approach used for this study.

The terms organizational performance, organizational effectiveness and organizational success are used synonymously in this study (Yuchtman, 1966:1). There are various definitions of effectiveness. Etzioni (1964:8) defines effectiveness as the degree to which an organization realizes its goals. Obviously there are ambiguities in this definition. First, specifically whose goal is the organization considering? Second, are short or long-term goals being considered? Third, is it the official goal or the actual goal which is being considered? Kimberly (1979:438) uses the term survival to denote organizational effectiveness. But the use of survival as a criterion presumes the ability to identify the death of an organization -- i.e. survival is an "alive or dead" evaluation. Organizations which survive can also be ineffective. In addition, Pfeffer (1978:139) argues that some organizations, like government agencies and large corporations, practically never die. Campbell (1977:36- 41) identifies thirty different criteria all purporting to measure organizational effectiveness. These different criteria ranging from general measures such as quality, morale, and efficiency to more specific factors such as accident rate, and absenteeism certainly lead to the conclusion that organizational effectiveness means different things to different people. Based on these different approaches, Cunningham (1977:463-474) contends that the selection of the appropriate basis for assessing organizational effectiveness presents a challenging problem for managers and researchers. Thus there is no generally accepted conceptualization prescribing the best criteria to assess organizational effectiveness.

Even though there is no one best criterion to assess organizational effectiveness, most organizational theorists agree that total organizational effectiveness refers to the degree of long-term goal attainment (Price, 1968; Coulter, 1979; Steers, 1975; Gross, 1968; Mohr, 1973). Most also agree that the goals of the organization are complex and subject to interpretation and change. Since the goals of organizations involve technical, psychological or sociological ideals, it may be impossible for an organization to be effective in terms of reaching a desired state. Thus each researcher is forced to abandon the measurement of total effectiveness, and each takes a somewhat more limited perspective as to the criterion of evaluation such as absence of tension and conflict within subgroups (Georgopoulos and Tannenbaum, 1957), turnover and absenteeism (Campbell, 1975), and productivity (Price, 1968; Child, 1974; 1975).

The selection of an approach to organizational effectiveness is an important stage in conducting research on organizational performance. This approach is needed to facilitate obtaining the data and information necessary to validate the theoretical construct. Although there is no consensus as to the best approach, it is necessary for the researcher to justify the basis of his selection.

The literature reveals a number of approaches on the concept of organizational effectiveness. Among them are goal attainment (Price, 1972), system resource (Yuchtman and Seashore, 1967), internal process (Arygris, 1964; Likert, 1967), and strategic constituencies (Pfeffer and Salancik, 1978). Each approach has its strengths and weaknesses.

The system resource approach has two limitations. This approach has not been used extensively to measure effectiveness (Daft, 1983) and there has been no study where this approach has been used for public agencies (Molnar and Rogers, 1976). Secondly, it is difficult to develop valid and reliable measures of variables such as "flexibility of response to environment changes" (Robbins, 1983). The internal process approach provides a limited view of organizational effectiveness because it places a greater emphasis on internal efficiency. In addition, this approach ignores and does not evaluate the organization's relationship with the external environment. The strategic constituencies approach has two limitations. First, the task of separating the strategic constituencies from the larger environment may be easy to conceptualize but difficult to accomplish in practice. For instance, what was critical to the organization yesterday may not be critical today. Second, assuming that the constituencies in the environment can be identified and are relatively stable, it can be difficult to distinguish or separate the strategic constituencies from "almost" or "near" strategic constituencies.

The literature indicates that the goal attainment approach is widely used because it minimizes the intrusion of value when determining the indicators used to measure effectiveness. This study will use the goal attainment model as the approach to measure organizational performance.

The above discussion summarizes the limitations of the various approaches of organizational effectiveness. Even though the goal attainment model has its limitations (i.e. the problem of multiple and conflicting goals (England, 1967); and the question of subjective indicators to measure goal attainment), justifications are given below for choosing this approach.

Despite its limitations, the goal attainment model is considered appropriate for this research. From the point of view of reliability, the goal attainment approach safeguards the researcher from his own subjective biases (Yuchtman and Seashore, 1967). This model implies that the researcher will have to utilize the data and information available in the organization in order to come up with the measure of effectiveness. The problems that are raised by critics of this approach (i.e. the problems of multiple goals and subjective goals) can be overcome by using the suggestions proposed by Perrow (1961). Perrow distinguishes "official" and more specific "operative" goals. The official goals of an organization are its publicly espoused goals, whereas the operative goals are its actual goals. Official goals should be examined because they provide a good place to begin the search for the operative goals. Therefore, the achievement of the operative goals is an appropriate basis to evaluate the effectiveness of an organization. The reason for this suggestion is that "operative goals designate the ends sought through the actual operating policies of the organization; they tell what the organization is trying to do regardless of what the official say are the aims" (Perrow, 1961:855). This approach of goal identification can reduce the task of the researcher to manageable proportions if the focus of the research is on the organizational goals that the top decision makers actually pursue (Gross, 1969). Price (1972), in supporting the goal attainment approach, suggests that the focus of research should be on the top decision makers of the organization. This suggestion is also supported by Yuchtman and Seashore (1967:892) who contend that the major decision makers are the most valid source of information concerning organizational goals because they allocate most of the resources of the organization. Gross (1968) supports the same contention and indicates that goals always exist in the minds of certain persons, and these persons are the top decision makers of the organization. Since boards of directors have been identified earlier as the top decision makers of the organization, it is felt appropriate to select the goal attainment approach as the basis to measure organizational performance for this study.

SUMMARY

This chapter focuses on the literature review of the two central concepts of the study, namely boards of directors and organizational performance. The literature review on the roles and functions of the board of directors facilitates development and identification of the model and framework to conduct research on boards' strategic managerial functions. The literature on boards' strategic management functions tends to be prescriptive and descriptive in nature and back by little empirical work. This research attempts to extend the literature by investigating empirically the influence of the boards' strategic management functions on organizational performance. This approach will help in validating the prescriptive and descriptive literature on boards' strategic management functions.

The concept of organizational performance has been well developed in the literature, and the review of the literature facilitates in justifying the selection of an approach tied to organizational performance.

CHAPTER III - RESEARCH METHODOLOGY

DESCRIPTION OF ORGANIZATIONS

Forty-two public enterprises (i.e. government owned companies) were used as the sample of the study. These companies were from three different industries of the manufacturing sector: building material; food; and wood-based. Enterprises in the manufacturing sector was selected because the output could be evaluated in term of sales and revenues. The information and data on sales and revenues could then facilitate the calculation of the profitability and growth indicators which were used to represent the performance of the companies. In addition, the manufacturing sector is an important sector in a developing country like Malaysia which is aggressively engaging in an industrialization program to attain a higher level of economic development. Therefore, any attempt to increase information facilitating the management of government-owned companies is certainly a move in the right direction.

The government-owned companies selected for the sample were located in peninsular Malaysia. They had been in operation for a number of years, and none had experienced any recent disruption such as changes in management, reorganization or bankruptcy. The list of government companies, grouped according to industrial classification, available at the Prime Minister's Department was used to select the companies in this study. The selection was random in order to enhance the generalizability of the findings. The records and data on public enterprises which were available at the computer center of the Prime Minister's Department and the Ministry of Public Enterprise were used to gather the relevant information and data for this study.

DATA COLLECTION

The data were collected using a combination of questionnaire and organizational records. The questionnaire was mailed to the board members of the selected companies to get their responses on the questions concerning the strategic management functions of boards of directors. Minutes of meetings of the boards (where available) were used to verify and check the information obtained from the questionnaire. These two methods were used because different methods of studying the same phenomena would provide more accurate information (Jick, 1979; Weick, 1969). Records on the companies which were available at the computer center of the Prime Minister's Department and Ministry of Public Enterprise were used to calculate the performance indicators.

In order to encourage a high response rate, the questionnaire included two cover letters, one from the chairman of the dissertation committee and the other from the Ministry of Public Enterprise. The letter from the chairman indicated that the study was meant as a research project to satisfy the researcher academic requirement for the Ph.D program. The letter from the Ministry of Public Enterprise explained the importance of the response to the researcher and indicated that the response would notbe used as a means to identify any malpractice in the companies. In addition, a pledge was also made to the respondents that the information would be used strictly for research purpose.

MEASURES

Performance Data

In this study performance was measured in terms of profit and growth. Since the companies which made up the sample were potential candidates to be transferred / sold to enterprising entrepreneurs, profitability and growth were considered appropriate criteria because of their importance in attracting entrepreneurs. In addition, these companies were set up in this form (i.e. registered under the Companies Law) in order to provide the degree of managerial freedom and flexibility to pursue their commercial interests (Affandi, 1976). In fact these companies competed with the private enterprises to search for markets and customers.

Performance variables

The measures of profitability and growth criteria used were as follows:

1. Profitability

   - Return on assets

- Profit margin

2. Growth

   - Growth in income

   - Growth in net assets

   - Growth in sales

Return on assets relates a flow, net income for the year after taxes and extraordinary items, to a stock, the total accounting assets as represented at year end. In conformance with common practice, it is expressed in per cent. Profit margin reflects the net profitability of each dollar of sales. This indicator is also expressed in per cent.

Growth in income shows the ability of the company to generate net income which in turn reflects the amount of retained earnings accumulated by the company. Retained earnings is one of the sources of financing for future growth. Growth in net assets shows the rate of change in total assets from one year to the next. This figure reflects the growth rate of the total assets of the company and indicates the potential of the company to expand its production facilities. Growth in sales shows the rate of change in total sales from one year to the next and reflects the potential of the company to expand its production facilities.

Data on performance were gathered from each company's records. Indices of performance were calculated using a five-year average (i.e.

from 1979 to 1983). A five year span is sufficient to reduce the effect of an exceptional year and to provide some indication of the growth rate (Miller and Friesen, 1983; Child, 1974).

The categories of financial data collected were the following:

(a) Income - defined as gross trading less all expenses. Any investment income is added to the net income.

(b) Assets - defined as fixed assets net of depreciation with current assets added and current liabilities deducted.

(c) Sales - defined as gross sales less any returns and allowances.

The average percentage growth in income, assets, and sales was calculated over a five-year period. The average percentage figure for return on assets and profit margin was also computed for each company over a five-year period.

The average rate of growth in income was calculated by taking the average percentage change in income over a five year period (1979 to 1983). Since the rate of change was calculated by taking the difference between two years and divided by the earlier year, the rate of growth in income would have four data points (i.e. 1979 and 1980; 1980 and 1981; 1981 and 1982; and 1982 and 1983). The average rate of growth in income was derived by dividing the total growth rate for 1979 to 1983 by four.

Average percentage rate of growth in profit, and sales was also calculated by the same procedure as mentioned above.

Return on assets was calculated by dividing net income by net assets. Net income was derived by taking gross trading less all expenses, and add any other sources of income. Net assets was derived by taking fixed assets less depreciation and add net current assets. Average percentage figure for return on assets was derived by adding the percentage return on assets over the five year period (1979 to 1983) and divided it by five.

Profit margin was calculated by dividing net income by net sales. Average percentage figure for profit margin was derived by adding the annual profit over the five year period and divided it by five.

Data on Boards' Strategic Managment Functions

The variables selected to refer to boards'strategic management functions were derived from the review of the literature on the boards of directors. The variables selected are listed below.

Table 1. Variables for Boards' Strategic Managerial Functions

Decision Areas

i.	Determination of objectives.
ii.	Approval of major policies.
iii.	Approval of company organization.
iv.	Approval of budgets.
v.	Approval of major plans and programs.
vi.	Selection of outside auditors.
vii.	Selection of sales representatives.
viii.	Matters requiring shareholders' action.

Planning

ix.	Analysis.
x.	Futurity (forecasting).

Control

xi.	Reviewing.
xii.	Comparison.

Board Operation

xiii.	Use of committee.
xiv.	Availability of information.

The independent variables used in this study referred to the boards' strategic management functions which had been the focus of much attention by researchers in the area of boards of directors. Decision making, planning, control, and board operation are dimensions of boards' strategic management functions which have been the focus of the works of Koontz (1967), Baker (1945), Vance (1983), Andrew (1980), Drucker (1974), Chitayat (1980) and others.

A questionnaire was used to obtain responses from board members on these variables (refer to Appendix "B"). Since directors would be responding to questions directly related to their functions, there was always the possiblity of responding in a certain direction (i.e. it could be biased upward or downward). Initially it was planned that the same questionnaire would be sent to the chief executives of the companies selected for the study in order to get their response on the questions. The objective of this plan was to check for any significant variability between the responses by the directors and the chief executives. The idea was not implemented, however, because the chief executives were also members of the boards. In addition, it was planned that minutes of board meetings would be used used as a means to check the responses of the directors on the questionnaire, but it was not possible to get the minutes of meetings of all the companies. Most of the companies considered minutes of board meeting confidential and did not permit access to the minutes by outsiders.

The questionnaire consisted of forty eight questions relating to four variables. The factor analysis identified four constructs which represented the four variables. The data were collapsed on each of the four variables per respondents. Since the analysis of the hypotheses is at the firm level, the data was further collapsed by calculating the average of the responses on each variable for individual firm. The result is that there is one data point per variable for each of the forty two firms. In addition, the questionnaire was pretested in order to check the reliability and clarity of the questions.

Carmines and Zeller (1979) suggest the need for researchers to examine the reliability of indicators, especially those that are tapped by empirical measurements. Reliability concerns the extent to which an experiment, test, or any measuring procedure yields the same results on repeated trials. The literature provides a number of ways to test the reliability of the measure (i.e. retest method; alternative form method; split-halves method; internal consistency method). This study used Cronbach alpha to determine the reliability estimates of the independent variables because it required only a single administration and to provide an estimate of reliability.

METHODS OF ANALYSIS

The literature on strategic management functions of board of directors did not show special features on industry specific. Owing to that the analysis performed on the data followed a two stage process. The data were first analyzed using the total sample of forty-two firms. The analyses used were correlation and multiple regression. These analyses were meant to identify the relationship between the dependent and independent variables, and the extent of the variance that could be accounted for by the independent variables on the dependent variables. The second stage of the analysis was based on industry specific. Correlation, multiple regression, and t-test analyses were used to identify any difference in the results when analysis was done using specific industry data.

Correlation Analysis

Correlation analysis was used to measure the strength of association between boards' strategic management functions and the performance variables. The procedure for correlation analysis was performed by correlating each of the board strategic management functions with the performance indicators. The correlation coefficients and the level of significance of the relationship provided the basis for accepting or rejecting the hypotheses. The correlations between boards of directors' strategic management functions and organizational performance thus provided the framework for analyzing the influence of the independent variables (i.e. board's strategic management functions) upon organizational performance.

Multiple Regression Analysis

In order to test the model further, multiple regression was used to identify the independent variables which had the strongest relationship to the dependent variable. Each dependent variable was regressed against the independent variable. In order to identify the best model to explain the dependent variables, the backward elimination procedure was used. This procedure sequentially removes variables from the regression model. The procedure initially generates a regression equation which includes all the independent variables used in the study. Independent variables with the smallest insignificant partial F-test is then removed from the model. The remaining variables are then regressed against the dependent variable. This process will stop when all the independent variables remaining in the model are significant at the pre-specified alpha level. This process will produce a model which consists of variables with significant F-test at the pre-specified alpha level.

The multiple regression analysis would provide the information on the coefficient of multiple determination (R^2). This coefficient would indicate the strength of the independent variables in explaining each of the dependent variables.

T-Test

Industry averages on return on assets and profit margin were used to classify the sample into two categories: those above the industry average; and those below the industry average. The industry averages on these two indicators for the three industries were obtained from records on performance of various industries in Malaysia. This study used the mean of the industry average of the the two indicators for 1979 to 1983.

T-tests were used to identify any significant differences in boards' strategic management functions between the two categories of companies. This study assumed that companies above the industry average were considered successful.

SUMMARY

This chapter specified the organization of the study, the data used for the variables (i.e. boards' strategic management functions and organizational performance), and also the methods used to analyze the data. The questionnaire for the independent variables was pretested to determine the reliability of the responses, and clarity of the questions. Factor analysis was used to ascertain the questions constituted the construct for the independent variables. Correlation, multiple regression, and t-tests analyses were used to test the hypotheses.

CHAPTER FOUR - DATA ANALYSIS AND RESULTS

INTRODUCTION

This chapter presents the results of the analyses of the data collected for the study and is divided into two parts. The first part analyzes the information on the composition of the boards of directors of the sample sampled. The features analyzed were size, age, occupation, educational level, specialization, and business experience of the directors. These features when analyzed provided a profile of the boards of directors of the selected companies (Koontz,1967). The second part of the chapter reports the results of correlational, multiple regression, and t-test analyses between boards' of directors strategic management functions and organizational performance. The objective of these analyses is to test the hypotheses of the study the four research hypotheses of the study.

Hypothesis I: "There is a positive relationship between the involvement of the board of directors in the strategic management function of decision making in the strategic decision areas and organizational performance."

Hypothesis II: "There is a positive relationship between the involvement of the board of directors in the strategic management function of planning and organizational performance."

Hypothesis III: "There is a positive relationship between the involvement of the board of directors in the strategic management function of control and organizational performance."

Hypothesis IV: "There is a positive relationship between the involvement of the board of directors in board operation and organizational performance."

The independent variables of the study were decision making, planning, control, and board operation; the dependent variable was organizational performance. The concepts and how these concepts were operationalized were discussed in chapters two and three respectively. The dependent variables were return on assets, profit margin, average rate of growth in profit, average rate of growth in assets, and average rate of growth in sales. The sample of the study comprised three industries of the manufacturing sector, namely building materials, food, and wood-based. Data on boards' strategic managerial functions were obtained by the use of questionnaires, and indicators of organizational performance were derived from financial statements.

COMPOSITION OF THE BOARDS OF DIRECTORS

This section analyzes the elements on the composition of the boards of directors. The information on the elements was obtained from the records of the companies. The number of directors from each company willing to participate in the study is presented in Table 2.

Table 2. Sample Distribution by Industry

Industry	No. of Companies		No. of Directors		Response Rate(%)
	Selected	Responded	Total	Responded	
Building materials	21	14	101	82	81.2
Food	18	14	85	73	85.8
Wood-based	20	14	84	69	82.1
	59	42	270	224	82.9

Table 2 shows that fifty-nine companies were selected for the study and they were firm classified under building materials (BM), food (FD), and wood-based (WD). These fifty nine companies were the total number of firms in the three industries established before 1979. The response rates, based on industries, were 66.7 percent in BM, 77.8 percent in FD, and 70 percent in WD. The reasons for some of the companies not being included in the final sample were:

(i) the chief executives did not want their companies to participate in the study for reasons known only to them;

(ii) from records, some of the companies were registered before 1978 but did not start operating until 1981 or 1982;

(iii) too many bureaucratic procedures had to be fulfilled in order to get permission to obtain the necessary information on the companies;

(iv) some of the companies had been ordered to suspend their operation by the government, so the operating management and directors were unwilling to participate;

(v) some of the companies had been registered but had not started operation.

The fourteen companies in BM had 101 directors and 82 of them responded. The fourteen companies in FD had 85 directors, and 73 of them responded. For WD there were 84 directors, and 69 of them responded. The response rates from the directors were 81.2 percent, 85.8percent, and 82.1 percent for BM, FD,and WD respectively. Of the nineteen directors in BM who did not respond, eight businessmen, seven were politicians, and four were administrators. The twelve non-respondents in FD comprised nine businessmen, two administrators and one politician. The non-respondents for WD were seven businessmen, two administrators, and six politicians.

Size

The boards of directors of the forty-two companies included in the study ranged in size from three to fifteen members, with an average of six. According to section 122(1) of the Malaysian Companies Act, 1965, " every company shall have at least two directors who each has his principal or only residence within Malaysia." In the case of the sample where the controlling authority was with the holding corporations, the article of incorporation normally stipulated that the holding corporations were vested with the authority to appoint the members of the boards of directors. An example of a holding corporation is the State Economic Development Corporation. Each state in Malaysia has a State Economic Development Corporation which is empowered to register companies under the Companies Act, 1965.

The directors of government companies comprised representatives of the ministries or departments whose functions the companies come under, individuals with relevant expertise and knowledge on the activities of the companies, and representatives of the holding corporations. Those individuals invited to be members of the boards were normally businessmen, politicians, and professionals such as accountants, lawyers, bankers, and others. Table 3 shows the distribution of respondents by industries and companies.

Table 3. Sample Distribution by Respondents

Company	Number of Directors			Number of Respondents		
	BM	FD	WD	BM	FD	WD
1	3	8	4	3	8	4
2	6	4	4	5	3	3
3	7	5	8	6	4	8
4	15	7	9	11	6	6
5	6	7	6	6	7	4
6	4	6	8	4	6	8
7	6	5	7	4	4	6
8	4	8	6	3	5	5
9	7	6	6	6	5	5
10	5	4	7	3	4	6
11	8	5	7	7	4	5
12	11	4	4	9	4	3
13	14	8	4	11	7	3
14	5	8	4	4	5	3
Total	101	85	84	82	73	69
Response rate				(81%)	(85.8%)	82.1%)

Age

Table 4 shows the age distribution of the directors for the three industries of the study. The average age of directors of BM, FD, and WD was 43.5, 44.2, and 43.3 years respectively. The difference among the average ages of directors of the three industries was insignificant. The age distribution of the sample showed that about 29.5 percent were within the age group of 36-40 years, 27.3 percent between 41- 45 years, 24.6 percent between 46-50 years, 9.8 percent between 51-55, 6.3 percent between 30-35 years, and 2.7 percent greater than 55 years. The number of directors in the age group above 55 years was small.

Table 4. Sample Distribution by Age

Age	30-35	36-40	41-45	46-50	51-55	>55	Total	Av. age
Ind.								
BM	4	26	23	19	8	2	82	43.5
FD	6	19	17	20	7	4	73	44.2
WD	4	21	21	16	7	0	69	43.3
Total	14	66	61	55	22	6	224	43.6
	6.3%	29.5%	27.3%	24.6%	9.8%	2.7%		

Ind. = Industry.

Organization Position (Job)

The analysis of organizational positions of the directors showed the blend of occupations which made up the boards of directors of the companies. Table 5 provides the information on the distribution of organizational positions of the directors of the companies included in this study.

Table 5. Organizational Position of Directors

Industry	BM		FD		WD		Total	
	No.	%	No.	%	No.	%	No.	%
Job								
Accountant	1	1.2	0	0	4	5.8	5	2.2
Administra-tor	41	50.0	41	56.6	33	47.8	115	51.3
Auditor	1	1.2	0	0	0	0	1	.5
Banker	0	0	2	2.7	0	0	2	.9
Business-man	7	8.5	17	23.3	19	27.5	43	19.2
Engineer	23	28.1	4	5.5	3	4.3	30	13.4
Farmer	0	0	1	1.4	0	0	1	.5
Politician	9	10.9	6	8.2	10	14.5	25	11.2
Academician	0	0	2	2.7	0	0	2	.9
Total	82	100	73	100	69	100	224	100

Table 5 shows the organizational positions of the directors in the three industries. Administrator led the list with 51.3% percent followed by businessman with 19.2 percent. Engineers and politicians were represented by 13.4 percent and 11.2 percent respectively. The others, accountants, auditors, farmers, bankers, and academicians, were marginally represented on the boards. Administrators were also widely represented on the boards of the three industries. This was as expected because they had to make sure that the objectives set for the companies were properly monitored by the boards of directors.

When the data were broken down by industries, it was observed that all three industries had a relatively high percentage of administrators serving as directors of the companies. The companies in BM showed more emphasis in the appointment of engineers as the directors of their companies. This pattern was not found in the other two industries. FD and WD had more businessmen than engineers.

Educational Level

The levels of education of the directors of the companies in the three industries are shown in Table 6. The significant feature of the educational level of the directors of the companies in the three industries was the emphasis on appointing directors who had higher than the secondary level of education. The percentages were 87.8 percent, 93.2 percent, and 76.8 percent for BM, FD, and WD respectively. This distribution suggests that additional academic certification may be considered in the appointment of directors in the three industries.

Table 6. Sample Distribution by Level of Education

Industry	BM		FD		WD		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Educational Level								
Secondary	10	12.2	5	6.9	16	23.2	31	13.8
Diploma	2	2.4	1	1.8	2	2.9	5	2.2
Accountancy	2	2.4	4	5.5	4	5.8	10	4.5
LL.B	0	0	1	1.4	0	0	1	.5
Bachelor degree	58	70.7	52	71.2	39	56.5	149	66.5
Master degree	9	10.9	8	10.9	8	11.6	25	11.2
Medicine	1	1.2	0	0	0	0	1	.5
Ph. D	0	0	2	2.7	0	0	2	.9
Total	82	100	73	100	69	100	224	100

Educational Specialization

Table 7 shows the educational specialization of the directors of the companies in the three industries. Educational specialization reflects the directors' formal educational background.

Twelve different educational specializations were found among the directors of the companies in the three industries. About 62.1 percent of all the directors specialized, during their tertiary education, in economics, liberal arts, or engineering. About 14 percent of the directors had no specialization, and therefore did not pursue tertiary education after their secondary-level education. The other specializations were not significantly represented.

A breakdown by industries indicated that engineering constituted the highest percentage among reported specialization of directors in BM. This fact suggests the emphasis on technical competence. The specialization most frequently reported by all industries in the study was economics. The educational specialization in agriculture was relatively high among directors in FD.

Table 7. Sample Distribution by Educational Specialization

Industry	BM		FD		WD		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Speciali -zation								
Accountancy	3	3.7	4	5.5	4	5.8	11	4.9
Agriculture	0	0	14	19.2	1	1.4	15	6.7
Business	7	8.5	4	5.5	5	7.2	16	7.1
Economics	16	9.5	19	26.0	17	24.6	52	23.2
Engineering	23	28.1	8	10.9	5	7.2	36	16.1
Forestry	0	0	0	0	2	2.9	2	.9
Liberal Arts	19	23.2	14	19.2	18	26.1	51	22.8
Public Admin.	3	3.7	3	4.1	1	1.4	7	3.1
Law	0	0	1	1.4	0	0	1	.5
Marketing	0	0	1	1.4	0	0	1	.5
Medicine	1	1.2	0	0	0	0	1	.5
No Speciali -zation	10	12.2	5	6.9	16	23.2	31	13.8
Total	82	100	73	100	69	100	224	100

Experience Of Directors

Table 8 shows the distribution of business experience among directors of the companies in the three industries. Approximately 80 percent of the directors of the companies in the three industries had at least one or more years of business experience. Of the 80 percent, approximately 53 percent had between one and ten years of business experience. The number of directors who had more than fifteen years of business experience was relatively small (8.57 percent). Approximately 73 percent of all directors surveyed had zero to ten years of experience.

Breaking down the figures by industries, it was observed that FD had the highest number of directors without any business experience (30.1 per cent) followed by WD (20.3 percent), and BM (9.8 percent). The data by industries also showed that forty-nine out of eighty-two, or 59.7 percent in BM, thirty-five out of seventy-three, or 48 percent in FD, and thirty-five out of sixty-nine, or 50.7 percent in WD of the directors had pne to ten years of business experience. Approximately 30 percent of directors in BM had eleven to thirty years of business experience. About one-third of the directors of FD had no business experience, and about 20 percent had between eleven and thirty years of experience. About 29 percent of the directors of WD had between eleven and thirty years of business experience.

Table 8. Sample Distribution by Experience

Industry	BM		FD		WD		TOTAL	
	No.	%	No.	%	No.	%	No.	%
Years of Business Experience								
No Experience	8	9.8	22	30.1	14	20.1	44	19.6
1- 5	25	30.5	15	20.6	11	15.9	51	22.8
6-10	24	29.3	20	27.4	24	34.8	68	30.4
11-15	17	20.7	12	16.4	13	18.9	42	18.8
16-20	6	7.3	2	2.7	6	8.7	14	6.3
21-30	2	2.4	2	2.7	1	1.4	5	2.3
Total	82	100	73	100	69	100	224	100

Summary

The above section showed a profile of the boards of directors of the three industries. The profile comprised size, age, organizational position, educational level, educational specialization, and business experience. The data indicated that there were negligible differences among the directors of the three industries on the six aspects.

BOARD OF DIRECTORS AND COMPANY PERFORMANCE

Pre-Test Data

The questionnaire on boards' strategic management functions was pre-tested by using twenty directors. Twenty-eight directors were originally selected to be the pre-test sample and twenty completed the questionnaire. The reasons for not receiving the response from the other eight were: (i) one had resigned from the government service and was busy making personal arrangements to join the private sector; (ii) two were offered opportunities to attend short courses overseas and were more concerned with making arrangements for the trip; (iii) responses from two of the directors were rejected because it came to our attention that one of the questionnaires was filled in by the secretary and another by an assistant; (iv) three rejected the request to be included in the pre-test because of pressure of work. The twenty respondents were directors of companies: twelve were civil servants, and eight were from the private sector.

The objective of the pre-test was to check whether the respondents were able to comprehend and respond to the questions in the questionnaire. The questionnaire was drafted in two languages, namely the National Language (Bahasa Malaysia) and English. Besides requesting the respondents to respond to the questionnaire, the respondents were also personally interviewed by the researcher in order to get their observation and comments.

From the responses and interviews, it was concluded that the respondents were able to comprehend the terms and wordings used in the questionnaire. The questionnaire was used to tap the information on the four independent variables. The questionnaire consisted of fifty-four questions. Thirty-two questions were directed at boards' involvement in decision making, six were for planning, seven were for control, and nine were for board operation. The respondents suggested that the question regarding "committees" of boards be removed because very few of the companies had standing committees. The questions on committee were classified under the variable,board operation. Ad hoc committees were created only to look into specific areas or problems. According to the respondents, the questionnaire was comprehensive with regard to the functions of the boards of directors of the companies of which they were aware. Using the information from the questionnaire and the interview, it was determined that the questionnaire could be comprehended by the respondents and that the wording in both versions of the questionnaire (in National Language and English) was clear.

Internal consistency method (Cronbach alpha) proposed by Carmines and Zeller (1979) was used to calculate the reliability of the independent variables. Cronbach alphas are indicators to show the reliability of the measurements. Table 9 shows the means, standard deviations and Cronbach alphas of the pre-test data. The alpha for planning was relatively low. This findings suggests that inconsistency may exist in the response on this variable.

Table 9. Means, Standard Deviations and Cronbach Alphas (Pre-test data)

Variables	Mean(%)	Standard Deviation	Cronbach alpha
Decision making	70.3	1.96	.88
Planning	54.2	2.49	.46
Control	64.5	2.34	.69
Board operation	73.1	4.75	.97

n = 20
(scale: refer to questionnaire -- Appendix B)

The pilot study indicated that the questionnaire was suitable to be used for the study. The questions on the effectiveness of standing committees were removed as a result of the pilot study. The number of questions was thus reduced to forty-eight.

Sample Data

The results of the factor analysis showed that the variables coincided with the categories indicated in the literature. The factor analysis on the thirty-two questions for decision making produced one factor which had positive loadings between .509 and .832. The six questions on planning produced one factor, the seven questions on control had one factor, and the same was found for board operation. Appendix "C" shows the results of the factor analysis.

Table 10 shows the means, standard deviations, and Cronbach alphas of the independent variables of the study based on 42 firms. The means of the independent variables were derived using the procedure outlined in Chapter 3. The means on the four independent variables for the forty-two firms are shown in Appendix "D". The higher the alpha level, the more reliable is the data. The independent variables referred to the strategic management functions of the boards of directors.

Table 10. Means, Standard Deviations and Cronbach Alphas of the Independent variables (N=42)

Variables	Mean(%)	S.D.	Cronbach alpha
Decision making	70.12	8.30	.97
Planning	61.11	12.65	.95
Control	66.83	9.92	.94
Board operation	73.36	7.90	.96

(S.D. = Standard Deviation)

Table 10 indicates that, on the average, the boards of directors of the sampled firms performed 70.12 percent of all the decisions in the various decision areas, 61.11 percent of all the planning decisions, 66.83 percent of all the control questions, and 73.36 percent of questions under board operation. The data for the specific industry was also analyzed. Table 11 shows the means, standard deviations, and cronbach alphas of the industry data.

Table 11. Means, Standard Deviations and Cronbach Alphas of the Independent Variables

Variables	BM		FD		WD		Cronbach Alpha
	Mean (%)	S.D	Mean (%)	S.D	Mean (%)	S.D	
Decision making	67.6	4.3	78.6	6.5	64.2	5.7	.97
Planning	56.7	8.4	69.9	14.2	56.7	10.3	.95
Control	62.6	3.9	76.4	8.2	61.5	8.9	.94
Board operation	71.3	5.1	80.6	6.0	68.1	6.4	.96

n = 14 for each industry
(S.D = Standard Deviation)

The figures in Table 11 indicate that, on the average, the boards of directors of the BM industry perform 67.6 percent of all the decisions in the various decision areas, 56.7 percent of all the planning decisions, 62.6 percent of all the control questions, and 71.3 percent of questions under board operation. The means of the four independent variables for FD are higher than those for the other two industries. This difference suggests that boards of directors of FD perform the four strategic management functions more than the boards of the two industries. The Cronbach alphas for the independent variables are .97 for decision making, .95 for planning, .94 for control, and .96 for board operation.

The distributions of the means for the two sets of analysis (i.e. n=42, and n=14) showed the same trend. Board operation had the highest mean for both sets of data, followed by decision making, control, and planning.

The dependent variables of the study were performance indicators. Five performance indicators were used. The distribution of these indicators is shown on Table 12. Financial statements for the years 1979 to 1983 were used to calculate the performance indicators. The latest audited financial statement available on the companies was for the year 1983. The unaudited financial statement for 1984 could not be released by the companies, and some of the companies had not had their 1984 financial statement prepared by August 1985. The indicators were developed using the procedure described in Chapter 3.

Table 12. Performance Measures for the Three Industries (1979-1983)

	BM mean(%) (s.d)	FD mean(%) (s.d)	WD mean(%) (s.d)
Return on Assets	6.0 (6.4)	6.23 (6.3)	10.2 (11.2)
Profit Margin	10.0 (6.3)	-4.19 (41.9)	12.9 (16.3)
Average Rate of Growth in Profit	29.3 (53.2)	117.9 (283.2)	15.8 (61.5)
Average Rate of Growth in Assets	33.0 (65.4)	30.49 (66.4)	12.7 (19.0)
Average Rate of Growth in Sales	28.3 (37.2)	53.9 (73.4)	81.3 (222.6)

n = 14 for each industry
(s.d.) = standard deviation

Correlation Analysis

The conceptual hypothesis of the study posits a positive relationship between the involvement of board of directors in the strategic management functions and organizational performance. The conceptual hypothesis is classified into four operational hypotheses by operationalizing the variables in the conceptual framework.

The correlation analysis was performed twice: using data for the total sample (n=42), and using data for each industry (n=14). Tables 13 to 17 show the correlations between boards' strategic management functions and performance indicators for the total sample and for each industry.

Testing The Hypothesis

The study encompasses four strategic management functions and five performance indicators of boards of directors. The correlation analysis attempts to identify the relationship between each of the managerial functions and the performance indicators.

(a) Correlation analysis using the total sample (n=42)

The table below shows the correlations between boards' strategic management functions and organizational performance using the total sample of 42 firms. The results showed that there were significant relationships between decision making, control, and board operation, and profit margin; and between planning, and control, and average rate of growth in sales. However, the results did not support the four hypotheses.

Table 13. Correlations between Strategic Management Functions and Organizational Performance

Independent Variable / Dependent Variable	Decision making	Planning	Control	Board operation
Return on Assets	-.19	-.06	-.13	-.14
Profit Margin	-.25 (a)	-.11	-.30 (b)	-.26 (c)
Average rate of growth in profit	.21	.06	.17	.19
Average rate of growth in assets	.04	-.10	.04	-.01
Average rate of growth in sales	.15	.31 (d)	.34 (e)	.12

(a) $p<.11$
(b) $p<.05$
(c) $p<.10$
(d) $p<.04$
(e) $p<.03$

(b) Correlation analysis using industry data

Hypothesis I - Decision Making

Hypothesis I states that "there is a positive relationship between the involvement of the board of directors in the strategic management function of decision making in the strategic decision areas and organizational performance." Table 14 shows the correlations between strategic management function of decision making and the performance indicators for boards of directors.

Table 14. Correlations between Decision Making and Performance Indicators

Industry	Building Materials (n=14)	Food (n=14)	Wood-based (n=14)
Dependent Variables			
Return on Assets	.32	-.26	-.16
Profit Margin	.37	-.01	-.36
Average Rate of Growth in Profit	-.07	-.02	.31
Average Rate of Growth in Assets	-.17	.03	-.09
Average Rate of Growth in Sales	.53*	.05	.45+

* $p < .05$
\+ $p = .10$

The correlations between the managerial function in decision making and average rate of growth in sales are significant for BM ($r = .53$; $p = .05$) and WD ($r = .45$; $p = .10$), while the other correlations are not significant. These figures show that the prediction of the hypothesis is not supported by the data.

Hypothesis II - Planning

Hypothesis II states that "there is a positive relationship between the involvement of the board of directors in the strategic management function of planning and organizational performance." Table 15 shows the correlations between the strategic management function in planning and performance. Two correlations are significant: between planning and profit margin ($r = .548$, $p < .05$) for BM; and between planning and average rate of growth in sales ($r = .712$, $p < .01$) for WD. The data do not support the prediction of the hypothesis.

Table 15. Correlations between Planning and Performance Indicators

Industry	Building Materials (n=14)	Food (n=14)	Wood-based (n=14)
Dependent Variables			
Return on Assets	.29	.09	-.16
Profit Margin	.55*	.09	-.32
Average Rate of Growth in Profit	-.21	-.114	.06
Average Rate of Growth in Assets	.04	-.33	.01
Average Rate of Growth in Sales	.41	-.06	.71+

* p < .05
+ p < .01

Hypothesis III - Control

Hypothesis III states that "there is a positive relationship between the involvement of the board of directors in the strategic management function of control and organizational performance." Table 16 shows the correlation between the strategic management function of control and the performance indicators. There are two significant correlations: between control and average rate of growth in sales for BM ($r = .486$, $p < .10$); and WD ($r=.709, p <.01$). The data show that the prediction of the hypothesis is not supported.

Table 16. Correlations between Control and Performance Indicators

Industry	Building Materials (n=14)	Food (n=14)	Wood-based (n=14)
Dependent Variables			
Return on Assets	.36	-.08	-.12
Profit Margin	.15	-.14	-.30
Average Rate of Growth in Profit	.06	-.04	.02
Average Rate of Growth in Assets	-.04	.02	-.10
Average Rate of Growth in Sales	.49*	.03	.71+

* $p < .10$
\+ $p < .01$

Hypothesis IV - Board Operation

Hypothesis IV states that "there is a positive relationship between the involvement of the board of directors in board operation and organizational performance." Table 17 shows the correlations between board operation and the performance indicators. Hypothesis 1V is not supported.

Table 17. Correlations between Board Operation and Performance Indicators

Industry	Building Materials (n=14)	Food (n=14)	Wood-based (n=14)
Dependent Variables			
Return on Assets	.44	-.24	-.10
Profit Margin	.20	-.13	-.17
Average Rate of Growth in Profit	.11	-.09	.42
Average Rate of Growth in Assets	-.16	-.13	-.01
Average Rate of Growth in Sales	.42	.10	.28

Although there was no significant correlation between board operation and performance, the boards of directors of the three industries contended that they provided with adequate information by the operating management. The boards of directors of BM considered the availability of information for performing their functions "very adequate." The boards of directors of FD also considered the availability of information "very adequate", and the boards of directors of WD considered information "moderately adequate." The questionnaire in Appendix "B" and the Table 11 on page 102 provide more information on this point. The data suggest that the boards of directors of the three industries felt that they had adequate information to execute their functions. This suggestion implies that the information given to the boards does not help them to enhance organizational performance.

Summary

The figures in Tables 13 to 17 showed that the four research hypotheses were not supported by the data. Although significant correlations were identified among some of the relationships, they were not consistent among the industries.

Multiple Regression Analysis

Since this research was an exploratory study, we felt that it was appropriate to test the conceptual model further, and for this purpose multiple regressions were run on the three industries. The multiple regression was also meant to confirm the findings of the correlational analysis. Stepwise regression procedures using backward elimination were used to obtain the best model with our variables. This procedure was used on the data for the total sample and specific industry.

The table below shows the results of the multiple regression analysis for the dependent variables which were significantly accounted for by the independent variables (at the significant level of .10).

Table 18. Results of Multiple Regression Analysis (Total Sample)

Profit Margin	=	77.48 + 1.32 Planning	- 2.28 Control	R^2 =.18
F	=	4.58 (p=.039)	8.33 (p=.006)	Total F=4.45 (0=.018)
Average Rate of Growth in Assets	=	-23.63 - 2.49 Planning	+ 3.01 Control	R^2 =.08
F	=	3.46 (p=.07)	3.11 (p=.086)	Total F=1.77 (p=.295)
Average Rate of Growth in Sales	=	162.88 + 16.48 Control	- 16.51 Board Operation	R^2 =.295
F	=	15.46 (p=.0003)	9.81 (p=.0033)	Total F=8.16 (p=.0011)

The multiple regression analysis showed that some of the independent variables contributed in accounting for the variance of profit margin, average rate of growth in assets, and average rate of growth in sales. Planning and control accounted for 18 percent of the variance of profit margin, and 8.3 percent of the variance of average rate of growth in assets. Control and board operation accounted for 29.5 percent of the variance of average rate of growth in sales.

The results showed that the independent did not account for the variance of return on assets, and average rate of growth in profit.

Table 19 shows the results of the multiple regression analysis for the dependent variables which were significantly explained by the independent variables (at a significance level of .10).

Table 19. Results of Multiple Regression Analysis (by Industry)

Building Materials Industry					
Profit Margin	=	-13.364	+ .412 Planning		(R^2 =.30)
F	=		5.16 (p=.04)		Total F=5.16 (p=.04)
Average Rate of Growth in Sales	=	-280.35	+ 4.57 Decision Making		(R^2 =.285)
F	=		4.78 (p=.049)		Total F=4.78 (p=.049)
Food Industry					
Return on Assets	=	71.24	+ .476 Planning	- 1.217 Board Operation	(R^2 =.37)
F	=		5.42 (p=.04)	6.28 (p=.029)	Total F=3.20 (p=.08)
Average Rate of Growth in Assets	=	-192.63	- 5.178 Planning	+ 7.657 Control	(R^2 =.39)
F	=		7.07 (p=.022)	5.08 (p=.045)	Total F=3.54 (p=.065)
Wood-based Industry					
Average Rate of Growth in Profit	=	-379.26	- 7.34 Control	+ 12.44 Board Operation	(R^2 =52)
F	=		7.95 (p=.0167)	11.91 (p=.005)	Total F=5.96 (p=.017)
Average Rate of Growth in Sales	=	79.195	+ 38.84 Control	- 35.06 Board Operation	(R^2 =.818)
F	=		44.9 (p=.0001)	19.11 (p=.001)	Total F=24.77 (p=.0001)

The multiple regression analysis showed that some of the independent variables contributed to explaining the dependent variables, for example, return on assets and average rate of growth in assets in FD. The planning and board operation independent variables explained 36.8 percent (R^2 =.368, $p<.10$) of the variance of the dependent variable, return on assets. The independent variables planning and control also explained 39 per cent of the variance of average rate of growth in assets.

Control and board operation explained 52 percent of the rate of growth in profit of WD. The same independent variables explained 82 percent of the variance of average rate of growth in sales of the same industry.

The results of the multiple regression analysis did not show any consistency across the three industries. Two dependent variables, profit margin and average rate of growth in sales, were explained by the independent variables planning and decision making for BM. Return on assets and average rate of growth in assets for FD were explained by planning, board operation, and control independent variables. Average rate of growth in profit and average rate of growth in sales for WD were explained by the independent variables control and board.

T - Test Analysis

In addition to multiple regression and correlation analyses, t-test analysis was performed on the data. The t-test was done by splitting the firms into two groups: those above and those below the industrial average figures of two performance indicators. It was assumed that those firms above the industry average figures on either return on assets or profit margin were considered successful and those below were considered unsuccessful. The two performance indicators were return on assets and profit margin. The industry averages for return on assets were 10.3percent, 6.8percent, and 9.48percent for BM, FD, and WD industries respectively. The industry averages for profit margin were 10.9percent, 6.5percent, and 11.6percent for BM, FD, and WD industries respectively. Tables 20 and 21 show the results of the t-tests.

Table 20. T-test using Return on Assets

Industry	Unsuccessful		Successful		Level of significance
	mean	s.d.	mean	s.d.	
<u>Building Materials</u>	(n=4)		(n=10)		
Decision making	66.9	3.0	69.3	7.0	N.S.
Planning	55.7	6.8	59.7	12.4	N.S.
Control	61.5	2.2	65.3	3.1	N.S.
Board operation	69.9	3.1	74.6	7.8	N.S.
<u>Food</u>	(n=9)		(n=5)		
Decision making	78.8	5.2	78.2	9.0	N.S.
Planning	68.2	14.5	73.0	14.9	N.S.
Control	76.4	8.3	76.5	8.8	N.S.
Board operation	80.8	4.8	80.7	8.4	N.S.
<u>Wood-based</u>	(n=9)		(n=5)		
Decision making	64.7	6.7	63.1	4.0	N.S.
Planning	58.8	11.4	52.8	7.2	N.S.
Control	63.4	10.0	58.1	5.8	N.S.
Board operation	69.3	6.9	65.8	5.3	N.S.

(s.d.=standard deviation; N.S.=not significance).

Table 21. T-test using Profit Margin

Industry	Unsuccessful		Successful		Level of significance
	mean	s.d.	mean	s.d.	
<u>Building Materials</u>	(n=7)		(n=7)		
Decision making	65.6	3.3	69.5	4.6	N.S.
Planning	51.1	4.8	62.3	7.5	N.S.
Control	61.4	2.3	63.7	5.1	N.S.
Board operation	69.2	4.2	73.3	5.4	N.S.
<u>Food</u>	(n=8)		(n=6)		
Decision making	78.9	6.1	78.3	7.5	N.S.
Planning	67.6	15.7	73.0	12.8	N.S.
Control	76.1	9.2	76.0	7.3	N.S.
Board operation	81.2	5.5	80.2	7.1	N.S.
<u>Wood-based</u>	(n=7)		(n=7)		
Decision making	65.2	7.7	63.1	3.1	N.S.
Planning	59.4	13.7	53.9	4.9	N.S.
Control	63.4	11.9	59.6	4.5	N.S.
Board operation	69.5	7.6	66.6	5.1	N.S.

(s.d.=standard deviation; N.S.=not significance).

The results of the t-tests indicated no difference between the strategic management functions of boards of directors of successful and unsuccessful firms for all three industries on both performance indicators.

Summary

This chapter covered two aspects, analyzing the data on the composition of the boards of directors, and performing the correlational, multiple regression, and t-test analyses on the data.

The analysis on the composition of the boards of directors was designed to identify the features of the boards of directors of the three industries from the perspectives of size, age, occupation, educational level, specialization, and business experience of the directors. The information on the composition showed little difference among the industries on the six factors. The correlational, multiple regression, and t-test analyses were meant to test the conceptual model.

The correlation analysis on either the total sample or on the specific industry did not support the hypotheses. It was noticed that the relative correlations for BM were stronger than the other two industries. The multiple regression showed that not all the independent variables were significant in explaining the dependent variable. The coefficients of determination (R^2) for industry specific were higher than for the total sample.

The t-tests indicate no significant difference on the strategic management functions of the boards between "successful" and "unsuccessful" firms based on return on assets, and profit margin.

CHAPTER FIVE - SUMMARY AND CONCLUSIONS

INTRODUCTION

This chapter presents a brief overview of the study. The results of the analyses are discussed, and the implications and limitations of the study are identified. In addition possible topics for further research are also identified.

SUMMARY

The literature review on boards of directors generally advocated and to a small degree described two major functions of boards: their role as trustees; and strategic managers. The study did not analyze the trusteeship function because it was assumed that the boards tend to perform the trusteeship functions in order to avoid legal actions being taken against them. The study focused on the strategic management functions of the boards and treated them as the independent variables. The independent variables were: decision making; planning; control; and board operation. The strategic management function of boards of directors in decision making was identified based on the works of Andrew (1978; 1980), Baker (1945), Copeland and Towl (1947), Drucker (1974), Mace (1976), Koontz (1967; 1972), Price (1963), Bacon and Brown (1975), and Louden (1982). The second function, planning, was recognized based on the works of Andrew (1978; 1980), Bacon and Brown (1975), Baker (1945), Copeland and Towl (1947), Drucker (1974), Koontz (1967; 1972), Lynch (1979), Taskahori and Boulton (1983), and Vance (1983). The works of Andrew (1978; 1980), Baker (1945), Bacon and Brown (1975), Copeland and Towl (1947), Drucker (1974), Koontz (1967, 1972), Mace (1976), Price (1963), Taskahori and Boulton (1983), and Vance (1983) provided the justifications for the control function. Board operation was identified through the works of Andrew (1978; 1980), Bacon and Brown (1975), Baker (1945), Drucker (1974), Koontz (1967; 1972), Louden (1982), Lynch (1979), Mace (1971), Price (1963), and Vance (1983). According to Koontz (1967), an effective board of directors is one which performs its required "strategic management functions." Data on these four strategic management functions were gathered by the use of a questionnaire (refer to Appendix B). The study used financial indicators as the measure of organizational performance. The indicators were: return on assets; profit margin; average rate of growth in assets; average rate of growth in profit; and average rate of growth in sales. These indicators were calculated on a five-year average as suggested by Child (1974). Financial statements of the sampled firms for the years 1979 to 1983 were used to derive the performance indicators.

The conceptual hypothesis of the study stated that "there is a positive relationship between the involvement of the board of directors in the strategic management functions and organizational performance." Based on this conceptual hypothesis, four research hypotheses were developed as elaborated in Chapter 2. Three methods were used to test the hypotheses: correlation; multiple regression; and t-test analyses.

DISCUSSION OF THE STUDY

The study was divided into two parts. The first elaborated on the profile of the boards of directors and, the second focused on testing the four research hypotheses.

The section on the profile provided the information on six aspects of the boards (refer to Chapters 2 and 4). These six aspects were suggested by Koontz (1967) but their significance in determining effective boards had not been empirically tested. It was impossible to determine the optimum level on all these aspects because of the lack of theoretical and empirical justifications. Therefore, it was not possible to show that certain boards were more effective than others. The profile was, therefore, merely a means of describing the composition of the boards.

Chitayat (1980) asserts that actual attendance of directors at board meetings, as well as the skills, experience, and personal contacts of individual directors are more important than the formal size of the board and ages of the directors. Actual attendance at board meetings may be important, but if attendance is merely to listen and approve minutes of previous meetings (Geneen, 1985), it may neither be appropriate nor important.

Since the profile of the boards was conceptually not sufficient and adequate to indicate whether a board was effective, the study used a questionnaire to determine the extent to which the boards performed the strategic management functions which were treated as the independent variables.

The results of the data analysis (Tables 13 to 21) did not support the four research hypotheses. In addition, there was no consistent pattern in the relationships among the variables of the three industries. The results demonstrated that the strategic management functions of the boards did not have a significant relationship with organizational performance. When the data were divided into two groups (successful and unsuccessful firms) based on industry averages on return on assets and profit margin, no significant difference was found between the two categories of firms. This result showed that there was no significant difference in the strategic management functions of boards of directors of successful and unsuccessful firms. This finding supported the results of the lack of significant relationships in the correlation analysis. Thus these results indicated that the conceptual framework was not supported.

Koontz (1972) quoted the empirical work of Farid (1969) to show that there was a positive relationship between boards' strategic managerial functions and performance. Farid's (1969) conclusion, however, did not provide decisive evidence on the relationship. According to Farid (1969, p380), "The relatively limited size of the sample (he used twelve companies classified into five groups) used here and the fact that the writer has applied weightings that are not verifiable, but seem to be reasonable, mean that no completely accurate statistical conclusion can be drawn." This statement raises question about the research methodology. Beyond the research by Farid (1969) there had been no empirical research to identify the relationship between boards' strategic managementfunctions and organizational performance. Because the conceptual framework on boards' strategic management functions and performance have not been extensively validated, the results of this study are only tentative in nature.

The data of the study indicated that the boards of directors did perform the four strategic management functions. The scales used to measure these functions were from 0 to 100 percent and the mean for each of the four independent variables for the three industries was above 56 percent (refer to Table 11). These figures on the mean suggested that the boards did perform the four strategic management functions. The lack of significant relationship between boards' strategic management functions and organizational performance raised the question as to whether the boards performed their strategic management functions in light of the financial performance.

The numerous objectives that are expressed as guidielines for public sector enterprises performance can be generally classified into three types (Jenkins, 1978). First, there are those which are financial, in that they deal with the revenues and costs of the firm or budgetary relationship between the enterprise and the government. Second, there are economic objectives which are related to efficient allocation of the country's scarce resources and to the net contribution of the enterprise to the output and growth of the economy in general. Third, public enterprises have distributional objectives which are often referred to as the enterprise's "social" objectives. These objectives usually are concerned with the level of income, wealth, or privilege, of various subgroups of the population. Government objectives which are viewed as "political" often can be analyzed as distributional objectives, because political favors usually have a principal goal that influences income distribution. Public enterprises may select and/or prioritize these three objectives in executing their functions. Thus, organizational performance or success must be determined based on which objectives an enterprise is pursuing.

The indicators of performance used in the study did not consider such "political or distributional" objectives because of difficulties in measuring these factors (Milne, 1980). According to Milne (1980), a good deal of skepticism exists in the ASEAN countries (countries which make up the Association of South East Asian Countries include Brunei, Indonesia, Malaysia, Philippines, Singapore, and Thailand) about the need to introduce complex evaluation procedures, given the lack of data and the cost of collecting them. The elaborate quantitative cost-benefit systems of measuring performance of public enterprises would cost more than their worth (Milne).

Since the boards of directors contended that they performed the strategic management functions (the score is above 56 percent which conceptually should have resulted in significant positive relationships with performance), it was probable that the failure to identify such relationships was because the boards emphasized "political or distributional" objectives. The initial objective of establishing these companies was to implement the NEP which emphasized on "distributional" objective. Analysis of the memberships of the boards (refer to Table 5) showed that they comprised a large percentage of civil servants. Civil service representation from supervising ministries or departments might exercise a watch-dog function regarding these values and, when decisions arose, their loyalty to government policies could be assured. Political representation also had a loyalty component, but it was often more of an acknowledgement of past loyalty (Milne, 1980). Based on the above possibilities it was probable that the conceptual framework might hold true if "political or distributional" indicators were used to measure organizational performance.

The performance indicators used in the study were derived from the financial statements of the firms for the years 1979 to 1983. Most of these firms started their operation after 1973 and the underlying rationale for their creation was to implement the New Economic Policy (NEP). The NEP emphasized dispersing industries into the rural areas. As a result initial investment expenses, especially in infrastructure, could be costly. In addition, between 1980 and 1983 the world economy experienced a downturn, which may have affected the financial performance of the firms. This economic situation was felt more by developing countries because of heavy dependence on the markets of the developed countries for their products. The economic recession was not within the control of the boards of directors, therefore they had limited means to overcome the poor performance, especially for public sector firms.

In addition public sector firms have to consider "political and distributional" objectives as well as financial consideration. Public sector firms have to compete with the local private and foreign firms for business. Local and foreign firms place heavy emphasis on profitability criteria to measure performance (Friedman, 1972; Anthony and Reece, 1975), and they are generally more established. The emphasis on profitability criteria enables these firms to be more cost effective in their operations. Public sector firms have to consider "political or distributional" in addition to financial consideration. The government is also facilitating entrepreneurial development for "Malay" businessmen by reserving government contracts for them. This practice limits the potential for public enterprise firms to bid for government contract.

IMPLICATIONS OF THE STUDY

From the theoretical perspective, the study attempted to identify whether the independent variable, boards' strategic management functions, could be categorized as factors affecting organizational performance as described and prescribed by management literature. The literature on organizational performance has identified technology (Woodward, 1965; Blau et. al., 1976; Perrow, 1967), size (Child, 1972; Galbraith, 1973), and environment (Burns and Stalker, 1961; Lawrence and Lorsch, 1977; Thompson, 1967; Emery and Trist, 1965) as the possible factors that can affect performance. The results of the study did not support the possibility of boards' strategic management functions as factors that could affect performance. These results supported the contention of Mace (1971), Geneen (1984) and Drucker (1963) that boards of directors did not perform activities that could influence performance. This study was not adequate, however, to conclude conclusively that boards' strategic managerial functions have no positive relationship with organizational performance. Considering that the performance indicators of the study were influenced by a number of external factors (i.e. economic environment; competition; social and economic objectives; timing), it was felt that the findings of the study must be considered tentative. Future research should consider the contingency factors that can affect performance.

There are two probable managerial implications that can be drawn from the study. First, the results showed that boards' strategic management functions did not affect financial performance of the companies.

If the government is pursuing a policy which emphasizes financial performance (i.e. to implement the privatization policy), boards of directors must reevaluate the effects of their strategic management functions on financial performance by identifying and formulating appropriate strategies to facilitate the attainment of financial objectives.

Second, the results of the study suggest that the performance indicators used to evaluate the strategic management functions of boards on organizational performance must be comprehensive. The performance indicators must be expanded to include indicators like economic and social objectives. Performance indicators which include financial, economic, and social perspectives can probably provide better information on the effects of boards' strategic management functions on organizational performance. This observation is particularly relevant for public sector organizations.

Besides the above, the correlation analysis showed that the strategic management functions of the boards of directors of BM had a relatively stronger relationship with organizational performance than the other two industries. The environmental conditions of each of these industries might help explain this relationship. First, the public and private sectors were actively involved in the housing industry during 1976 to 1985. Between 1976 and 1980, the total number of houses constructed was 484,190 units and this showed an increase of about 86 percent over the period between 1971 and 1975 (Fourth Malaysia Plan). The projection for 1981 to 1985 was 923,300 units and this showed an increase of about 90 percent over the previous period (i.e. between 1976 and 1980). This situation provided a favorable market for the products of BM. Second, while BM benefited from the action of the government, during 1979 to 1983, WD faced a number of problems. WD faced severe competition from imports and its ability to compete in foreign markets was also weak due to high production costs. Owing to the weak market position, the industry was unable to attract skill workers, to provide training to its employees, and to conduct research and development. Third, FD was faced with the problems of supply and availability of quality raw materials. In addition, the industry faced severe competition from imports and private local manufacturers.

The above discussion showed that the decision by the government in allocating its resources into specific industry provided a favorable incentive for the industry to prosper. This was seen in the case of BM. As such, it could be said that the attainment of the operational goals of the industry could be extensively facilitated by the actions and priority of the government.

LIMITATIONS OF THE STUDY

The first limitation of the study was related to the number of government firms which could be selected for the study. The number of firms in the three industries was small and some were not appropriate for selection based on the reasons explained in Chapter 4. This constraint caused the small sample size. Although 224 directors responded to the questionnaire, when they were grouped into the unit of analysis (i.e. at the firm level) 14 firms in each industry were represented. The small sample size could have affected the variance of the variables.

Second, the use ofthe survey did not permit the researcher to clarify ambiguities faced by the respondents in completing the questionnaire. In addition, the use of surveys prevents collecting verbal information which is important in management research (Mintzberg, 1979). This limitation was identified because some respondents contacted the researcher to seek clarification on some items in the questionnaire. The request to review minutes of boards meetings was refused by the firms due to confidentiality.

Another limitation of the study was the inability to secure current financial statements on the firms. The latest financial statement was that of 1983. In addition, the years used for the study (1979 to 1983) were masked by economic recession, resulting in fluctuation in the data on financial performance. The study was also unable to search for or formulate viable performance indicators which could reflect economic and social returns.

A final limitation of the study was the lack of consideration of strategic choice and contingency factors that might influence performance. The role of these factors was discussed by Hrebiniak and Joyce (1985). The authors argued that strategic choice factors, contingency factors, and the interaction among these factors influenced organizational performance. While none of the factors was held constant in a systematic manner in this study, the influence of certain factors might have been minimized because of sample design. For instance, government ownership was a dominant characteristic of the environment of the industries studied. While there was no attempt to empirically determine the amount of (perceived or objectives) uncertainty in each firm's environment, one might speculate that a common dominant influence could result in a similar degree of environmental uncertainty.

In Malaysia, there is increasing government supervision, control, and coordination of public enterprises because these enterprises are assigned a leading and instrumental role in the economic development of the country. Since allocation of public funds to these enterprises has been steadily increasing, the success or failure of these enterprises can significantly affect government investments. As a result, the government has attempted to insure by administrative means that the programs, activities, and strategies of these enterprises are performed in such a way as to help achieve the national development goals. Some of the administrative actions taken by the government for the supervision, control, and coordination of these enterprises are through government appointed board of directors, coordinating committees at the relevant functional ministries, and supervision and control by central planning, implementation, and financial agencies (Basu, 1976). Besides administrative actions, some of the operational aspects of these enterprises such as the pricing of goods and services, location of projects, employment and wage policies, and industrial relations are influenced extensively by the government in order to ensure that the economic, social, and political objectives of the government are met (Abdul Rahman, 1982).

The above examples demonstrated the manner in which the government's role dominates the environment of the three industries. Although a clear theory does not exist for predicting what types of strategies will be choosen given various situations (Miles, 1980), Chamberlain (1968) contends that firms tend to make strategic choices that seek to effectively relate their organizations to the public interest. The implication is that if one assumes that government dominates the environment of these three industries in the same manner, their strategic responses may also be similar. However, as noted above, the study presents no empirical evidence for this assumption.

SUGGESTIONS FOR FUTURE RESEARCH

This study identified that no significant relationship between boards' strategic management functions and organizational performance (i.e financial performance). Reported empirical research on the subject is very limited, so such the findings presented by the study are of a tentative nature. In addition, the literature on boards of directors has been conceptual and based on opinions without being empirically tested or validated. Therefore, such the findings of this study are not sufficient to provide a definitive answers, and more research will be particularly useful in providing a clear and acceptable direction and knowledge on the subject.

Future research must consider the problems encountered by this study as explained above in the section on limitations. It is suggested that future research identify the similarities and/or differences in the relationship between strategic management functions and organizational performance in the boards of public versus private firms. Knowledge from this perspective will facilitate the formulation of guidelines for boards of directors. The model on boards' strategic management functions has been developed based on the perspectives of private sector organizations.

It was recognized from the study that approaching organizational performance from only financial returns might not reflect the true functions of the boards, especially for public sector organizations. Therefore, it is proposed that research to identify the strength of relationships between boards' strategic management functions and the different types of performance indicators will provide a better perspective to evaluate boards of directors. It is also suggested that, in addition to financial performance, indicators to reflect economic and social performance be considered in future research.

From the methodology point of view, it is suggested that a number of methods be used to tap boards' strategic management functions. In addition, it is felt that minutes of board meetings is another source of information which can help in identifying the functions of the boards. These different sources of information can provide more valid data on the boards' functions.

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APPENDIX A. BACKGROUND OF PUBLIC ENTERPRISE

Since the organizations which were used as the sample for this study were public enterprises (i.e. government owned companies), it was felt appropriate that a brief background of public enterprise in general and public enterprise in Malaysia in particular would be helpful to the readers of this research.

The 13th International Congress of Administrative Science made an observation that "there is no agreement as to the concepts of public and private enterprises. In every country the concept of public enterprise is defined by legislation and other legal acts, by the manner of establishment as well as on the basis of other relationship". This view supports the contention of Mallya (1971) who states that "the organization of public enterprises can take many forms, but no attempt seems to have been made nor any thought bestowed to give them a nomenclature suitable to their form and name". A United Nations (1974) report uses the term public enterprise to denote "an enterprise in which the government has a majority interest of ownership and/or control". There are many definitions of public enterprise (Hanson, 1965; Ramanadham, 1959; Thornhill, 1968; Friedman, 1954; Robinson, 1976). The definition which has been quoted often is that of Hanson who refers to public enterprise as "the state ownership, control, and operation of industrial, agricultural, financial and, commercial undertakings". Based on this definition, the two elements basic to public enterprise are (i) the undertaking must be economic in character and (ii) it must be owned and controlled by the state.

Similar to its definition, there is no standard organizational classification of public enterprise. Robson (1966) presents seven principal types of institutions of public undertakings: (i) government department or ministry; (ii) local authority; (iii) regulatory commissions; (iv) mixed enterprises; (v) representative trust; (vi) joint stock company; and (vii) public corporation. The United Nations provides three categories of public enterprise organizational form: (i) departmental organization; (ii) public corporation; (iii) government company.

There also does not exist a clear-cut classification on the function of public enterprise. Robson (1966) classifies public enterprise into seven major functional groups: (i) public utilities; (ii) transport and communication; (iii) banking, credit, and insurance; (iv) multipurpose development projects; (v) basic established industries; (vi) new industries or services; (vii) cultural activities. Hanson (1965) lists down the following functional types of public enterprise: (i) general development agencies; (ii)industrial development and industrial finance agencies; (iii) agricultural agencies; (iv) regional agencies for river-valley development.

The above brief explanation about public enterprise shows that there are some unresolved semantics and issues relating to public enterprise which can affect understanding. Besides the controversies relating to the definition and classification of public enterprise, the definition of public enterprise is complicated by two additional and related factors. First, the public enterprise as a phenomenon is in the process of development -- it is not a static phenomenon and, in fact, it could never be. Second, each country must adapt the institution to its own particular situation. Without a complete understanding of the overall country's situations, definitions or lists of characteristics may be too restrictive to accommodate peculiar cases or too generalized to be meaningful and useful. According to Thornhill (1968) "public corporation is not an invention of political scientists. It can be said that public corporation is what its administration and the politicians have made it".

The reasons for establishing public enterprises differ from country to country and depend on the social and political philosophies. The reasons can be classified into three categories: ideological; social and political; and pragmatic and situational.

(a) Ideological reasons

One reason given for setting up private enterprises in countries which profess socialist ideals is to encourage private entrepreneurs (Ahmed and Ahmed, 1976), but there appears to be a distrust of the free enterprise system which is condemned as a cause of mass poverty and social imbalance. The private sector is accused of consisting of cartels and monopolies, and capitalists are branded for their failure to understand and sympathize with the aspirations of the people. With these sentiments prevailing, governments cannot be expected to depend fully upon the private sector to achieve their social and political goals. The prevailing ideology in these countries aims more at controlling private enterprise than at rejecting it altogether, as is evident in the fact that none of these countries accepts the more orthodox socialist ideology in which all the means of production are owned and controlled by the state.

(b) Social and political reason

The second motive for establishing public enterprise appears to be the social and political requirements of the government in power. One manifestation of this need is the development of a particular community in the country. Such a community usually consists of a particular ethnic or religious group or tribe. In Malaysia, a major reason for the government's direct participation in the economic life of the country and establishment of public enterprise is the need for developing the ethnic Malay community (Affandi,1976). Similar examples exist in the case of Indonesia (Sardjono, 1976) and the Philippines (Goley, 1976). In India, certain backward tribes and communities belonging to a particular religious group needed special government effort to bring them into the mainstream of the economy (Nitish, 1976). Merely encouraging private entrepreneurs in such cases was found to be ineffective because members of these communities were not trained to take up managerial and professional positions in industry and commerce. Public enterprises were set up for these communities with the objectives of creating employment and providing financial assistance and training. In all these cases the main intention was to correct an ethnic imbalance left over as a legacy of a colonial rule (Ness, 1967).

The political need to establish public enterprise is also spelled out in other policy pronouncements by government leaders as the need to control the "commanding heights" of the economy (Fernandes, 1976). In this case, public enterprise is manifestation of the desire of the political party in power to control private enterprise in the country by controlling certain strategic sectors of the economy. The concept of private enterprise is not rejected as such, but the government creates a situation in which it can effectively control the economy and therefore maintain the desired balance of political power. This line of thinking is not confined to democratic socialist countries but is also evident in the pronouncedly private and free enterprise economies such as South Korea (Saddique, 1976).

Public enterprises have also been established as the result of a polito-bureaucratic influence, with the objective of distributing and maintaining power or as a part of the process of distribution of spoils and patronage and reward to loyal political groups (Ness, 1967). There may, in such cases, be an element of development strategy but the dominating influence remains political expediency. This objective is specially evident in cases where public enterprises have been set up as a convenient means of allocating government resources to special interest areas or special groups (Ness, 1967).

(c) Pragmatic and situational necessities

Pragmatic and situational necessities are the third reason for establishing public enterprise. The need to correct regional imbalances is an example of this type of motivation. Regional imbalance is not only common to all developing countries, it also appears to be a manifestation of underdevelopment (Higgins, 1968). Uneven regional growth resulted from a number of factors. One was the traditional neglect of the rural areas and concentration on developing the cities and towns -- a policy often adopted by colonial governments to suit their trade and political needs (Ness, 1967). This tradition continued even after independence due to a number of social and economic factors. Industrial, commercial, and financial institutions tended to concentrate in larger towns to take advantage of the external economies (Sadique, 1976). Education and health facilities and proximity to the decision makers of the government were important inducements that encouraged private entrepreneurs to set up industries in or near the major urban centers. This disparity in regional development often coincided with the underdevelopment of particular backward ethnic or tribal communities. This lopsided growth contributed toward uneven distribution of the results of development between the rich and poor, and between the rural and urban populations, with the rural population, characteristically, the poorer partner (Wheelwright, 1965). This disparity in development tended to generate a number of undesirable social and political consequences which could possibly lead to violence and rebellion (McNamara, 1972). The disparity also pushed unemployed agricultural labor to the towns, creating additional social problems in the urban areas which had already had a large number of unemployed and unskilled persons (Sadique, 1976). One way of rectifying this situation was to locate employment creating enterprises in the rural areas. The governments of these countries tried to induce private investors to locate their industries in the rural areas through the provision of tax holdings, special facilities for foreign exchange and foreign loans, and grant licenses on priority basis, but the private investors were reluctant to take their enterprises to the rural areas (First Malaysia Plan, 1965). Therefore, the government, to set up their own industries to correct the situation. Examples of such government actions were the establishment of the State Economic Development Corporations in Malaysia which were assigned the task of setting up industries in the rural areas, the Industrial Development Corporation in Pakistan, and Mindanao Development Authority in the Philippines (Jayne, 1976).

Other reasons that can be included under this category are:

(a) certain types of enterprises, particularly defence-related industries, could not be left to the private sector for strategic reasons (Affandi, 1976).

(b) There are some enterprises which devolved to the public sector historical reasons. These companies were private enterprises which were taken into the public sector by means of nationalization. Examples are the nationalized Dutch enterprises in Indonesia (Sardjono, 1976), and the Japanese enterprises in Korea (Robinson and Griffin, 1974). Nationalization of petroleum refineries in Iran can also be attributed to this historical necessity (Smith, 1976).

ORGANIZATIONAL AND MANAGEMENT PATTERNS OF PUBLIC ENTERPRISE

The type of organizations used for public enterprises and their management patterns in various countries of Asia have basic similarities, but special historical reasons or differences in the political philosophies of the countries concerned have caused some significant deviations. Three main types of organizations can be found. First, there is the departmental enterprise which is managed as a government department. Financial and other management rules and procedures conform largely to those found in government departments, and the employees are regarded as civil servants. Departmental enterprises do not normally have boards of directors and also do not have a specific capital structure in the sense of issued or paid-up capital as found in business enterprise accounting (Sadique, 1976).

The second type of organization is the statutory public corporation. These enterprises are established under specific legislation. The capital is obtained principally from government loans and grants. The chief executives and boards of directors of these corporations are appointed either for a specific period at the pleasure of the government. This type of organization allows for some measure of flexibility in decision making in the corporations.

The third type of organization is the government company. These enterprises are established under the Company Law which also governs private enterprises. The government company is organized like a private enterprise with its board of directors. The main reason for this form of enterprise is to provide the companies with a greater degree of managerial freedom and the flexibility to pursue their commercial interests (Affandi, 1976).

The three basic types of organizations described above are, however, seldom seen in the pure forms. Departmental enterprises often have greater of operational flexibility than some public corporations and companies (Sadique, 1976). Some corporations are organized as companies and have subsidiaries in the form of companies, thereby assuming a mixed character.

PUBLIC ENTERPRISE IN MALAYSIA

Malaysia has extensively created public enterprises, and up through 1980 there were approximately 300 companies involved in commercial and industrial ventures (Ahmad, 1982). Robinson (1976) provides four main reasons for the establishment of public enterprises in Malaysia: new economic and social responsibilities; the need for comprehensive planning and regional development; escape from bureaucratic constraints; and freedom from political pressures.

Public enterprises form an important component of public administration in Malaysia. Public enterprises, particularly in the traditional areas of utilities, communication, and transport had beginnings as early as 1876. Many began in the departmental form, while some evolved into corporations, and others took the corporate form from their inception.

After 1969, there was an increase in the use of public enterprises of all types on all fronts of development. The role of public corporations was not only to stimulate and promote development but to participate actively in all economic activities as an equal partner with the private sector enterprises (Annuar, 1979). The race riot of 1969 was caused by the inequitable distribution of power among racial groups in the political, economic, and commercial affairs of the country.

Some background on the socio-economic structure of the Malaysian society can illuminate the above point. In 1970 Malaysia had a population of about 10.8 million people, comprising of three major racial groups: Malay (55 per cent); Chinese (34.3 per cent); and Indian (9.1 per cent). The mean monthly income for the country was $264 (Malaysian dollars).

For the three major racial groups, income level were: Malay ($172 Malaysian dollars); Chinese ($394 Malaysian dollars); and Indian ($304 Malaysian dollars) (3rd Malaysia Plan, 1975). Data on the incidence of poverty by race show: 65 percent of Malay households were poor, 26 percent among the Chinese, and 39 percent among the Indians. In the ownership of share capital in limited companies, the Malays had 2.4 percent, the Chinese and Indians had 34.3 percent, and the rest was controlled by foreigners. The Malays were predominantly in the peasant agricultural sector, whereas the Chinese and Indians were concentrated in non-agricultural activities, particularly in the industry, trade and transportation sectors.

The government, following the 1969 riot, took steps to remedy the situation. The New Economic Policy announced in 1971 had two main strategies: (a) to reduce and eventually eradicate poverty, by raising income levels and increasing employment opportunities for all Malaysians; (b) to accelerate the process of restructuring Malaysian society to correct economic imbalances, so as to reduce and eventually eliminate the identification of race with economic functions. This strategy involved the modernization of rural life, a rapid and balanced growth of urban activities, and the creation of a Malay commercial and industrial community in all categories and at all levels of operation in all aspects of the economic life of the country.

The Second Malaysia Plan (1971-1975) spelled out that the government would take a more active role in the establishment and operation of enterprises in commerce, industry, and agriculture (Second Malaysia Plan, 1971). The plan specified that the government would participate more directly in the establishment of a wide range of productive enterprises. This participation would be accomplished through wholly-owned enterprises or joint-ventures with the private sector. The NEP, therefore, designated a new and critical role for public enterprises. The government policy on privatization outlined the transfer of ownership of public enterprises to Malay entrepreneurs or Malay run institutions so as to accelerate the growth of "Malays" ownership in the corporate sector. In order to ensure the success of the privatization policy, the public enterprises must be financially and commercially viable and successful. The critical role of public enterprises also means that they may be placed in a sensitive situation within the context of a multiracial society. Their contribution to the goals of NEP and the privatization policy can have far-reaching consequences.

APPENDIX B. QUESTIONNAIRE

Introduction

Please respond to all the questions in this questionnaire by using the space provided. An example is given below to show the procedure to respond to the questions.

The objectives of the questionnaire are:

(a) to obtain information from boards' members regarding the activities of boards of directors as a group and not the role performed by an individual as a board member.

(b) to determine whether boards of directors perform the managerial functions as indicated in the literature.

Example of responding to a question

The example below shows the procedure to respond to question number one of the questionnaire. The same procedure applies to all the other questions.

Question No. 1: Determining market position objective.

The response to this question can be classified into seven categories: less than 10% of the decision; between 11 - 25% of the decision;

between 26 - 40% of the decision; between 41 - 55% of the decision; between 56 - 70% of the decision; between 71 - 90% of the decision; and greater than 90% of the decision. It is greatly appreciated that the following procedures are followed to respond to this question.

(a) first, please identify a category which you consider will best reflect the role of the board of directors of the company which you are a board member in performing the activity in question number 1. As an example, assume that the category which you consider to reflect the role of the board in this activity is: "between 56 - 70% of the decision".

(b) second, after a category has been identified, please select a figure within the range of the selected category which will best reflect the role of the board of directors as a group regarding the activity in question number 1. As an example, assume that the figure which you think appropriate to reflect the role of the board on this activity is 65% (i.e. 65% is a figure which is within the range of the category you have selected). This means that 65% will be the response to question number 1. As such please write the figure "65" on the space provided for question number 1. Based on the above example, it is appreciated that the above procedures will be followed in responding to all the other questions in the questionnaire.

The information gathered on all these questions will only be used by the researcher for his dissertation. The information will not be given to any other party. In addition names and organizations of respondents will not be revealed to any individual or party. Your response will be kept confidential. If you are interested to have a copy of the data analysis, I am willing to forward it to you when the research is completed.

For your cooperation and help in responding to all the questions, thank you very much.

Syed Muhamad Abdul Kadir.

A. DECISION AREAS.

I. DETERMINATION OF COMPANY OBJECTIVES.

The role of the boards of directors of the company which I am a director in decision making in determining the following objectives is:	Less than 10% of the decision	Between 11 - 25% of the decision	Between 26 - 40% of the decision	Between 41 - 55% of the decision	Between 56 - 70% of the decision	Between 71 - 90% of the decision	Greater than 90% of the decision
1. determinig market position objectives.	-------	-------	-------	-------	-------	-------	-------

2. determining productivity objective.	-------	-------	-------	-------	-------	-------	-------
3. determining physical and financial resources objectives.	-------	-------	-------	-------	-------	-------	-------
4. determining long and short term financial objectives.	-------	-------	-------	-------	-------	-------	-------
5. determining management performance and development objectives.	-------	-------	-------	-------	-------	-------	-------
6. determining public responsibility objective.	-------	-------	-------	-------	-------	-------	-------
7. determinig innovation objective.	-------	-------	-------	-------	-------	-------	-------

II. APPROVAL OF MAJOR POLICIES

The role of the board of directors of the company which I am a director in decision making in approving the following major policies is:	Less than 10% of the decision	Between 11 - 25% of the decision	Between 26 - 40% of the decision	Between 41 - 55% of the decision	Between 56 - 70% of the decision	Between 71 - 90% of the decision	Greater than 90% of the decision
8. approving new product and research and development policies.	-------	-------	-------	-------	-------	-------	-------
9. approving marketing policy.	-------	-------	-------	-------	-------	-------	-------

10. approving pricing policy.	-------	-------	-------	-------	-------	-------	-------
11. approving personnel policy.	-------	-------	-------	-------	-------	-------	-------
12. approving capital procurement policy.	-------	-------	-------	-------	-------	-------	-------
13. approving executive development and compensation policies.	-------	-------	-------	-------	-------	-------	-------
14. approving cash utilization policy.	-------	-------	-------	-------	-------	-------	-------

III. APPROVAL OF COMPANY ORGANIZATION.

The role of the board of directors of the company which I am a director in decision making in approving the company's organization is:	Less than 10% of the decision	Between 11 - 25% of the decision	Between 26 - 40% of the decision	Between 41 - 55% of the decision	Between 56 - 70% of the decision	Between 71 - 90% of the decision	Greater than 90% of the decision
15. approving the company's organization structure.	-------	-------	-------	-------	-------	-------	-------

16. approving the delegation of authority to senior managers.	-------	-------	-------	-------	-------	-------	-------
17. approving the promotion of senior managers.	-------	-------	-------	-------	-------	-------	-------
18. approving top management compensation.	-------	-------	-------	-------	-------	-------	-------
19. approving top management position.	-------	-------	-------	-------	-------	-------	-------

IV. APPROVAL OF THE BUDGETS.

	Less than 10% of the decision	Between 11 - 25% of the decision	Between 26 - 40% of the decision	Between 41 - 55% of the decision	Between 56 - 70% of the decision	Between 71 - 90% of the decision	Greater than 90% of the decision
20. approving the operating budget.	-------	-------	-------	-------	-------	-------	-------
21. approving the capital budget.	-------	-------	-------	-------	-------	-------	-------

V. APPROVAL OF MAJOR PROGRAMS.

The role of the board of directors of the company which I am a director in decision making in approving the program of the company is:	Less than 10% of the decision	Between 11 - 25% of the decision	Between 26 - 40% of the decision	Between 41 - 55% of the decision	Between 56 - 70% of the decision	Between 71 - 90% of the decision	Greater than 90% of the decision
22. approving major plant expansion program.	-------	-------	-------	-------	-------	-------	-------
23. approving new product development program.	-------	-------	-------	-------	-------	-------	-------

24. approving marketing program.	-------	-------	-------	-------	-------	-------	-------
25. approving personnel program.	-------	-------	-------	-------	-------	-------	-------
26. approving budget program.	-------	-------	-------	-------	-------	-------	-------

VI. SELECTION OF OUTSIDE AUDITOR

The role of the board of directors of the ocmpany which I am a director in decision making in selecting the outside auditor of the company is:	Less than 10% of the decision	Between 11 - 25% of the decision	Between 26 - 40% of the decision	Between 41 - 55% of the decision	Between 56 - 70% of the decision	Between 71 - 90% of the decision	Greater than 90% of the decision
27. selecting of outside auditor.	-------	-------	-------	-------	-------	-------	-------

VII. SELECTION OF SALES REPRESENTATIVES.

The role of the board of directors of the company which I am a director in decision making in selecting the sales representatives of the company is:	Less than 10% of the decision	Between 11 - 24% of the decision	Between 25 - 40% of the decision	Between 41 - 55% of the decision	Between 56 - 70% of the decision	Between 71 - 90% of the decision	Greater than 90% of the decision
28. selecting of sales representatives.	-------	--------	-------	-------	-------	-------	-------

VIII. APPROVAL OF MATTERS WHERE SHAREHOLDERS' ACTION IS REQUIRED.

The role of the board of directors of the company which I am a director in decision making in approving the following matters is:	Less than 10% of the decision	Between 11 - 25% of the decision	Between 26 - 40% of the decision	Between 41 - 55% of the decision	Between 56 - 70% of the decision	Between 71 - 90% of the decision	Greater than 90% of the decision
29. approving the sales of company assets.	-------	-------	-------	-------	-------	-------	-------

30. approving merger arrangement.	-------	-------	-------	-------	-------	-------	-------
31. approving mortaging of company assets.	-------	--------	-------	-------	-------	-------	-------
32. approving in changing the company's charter.	-------	-------	-------	-------	-------	-------	-------

B. PLANNING FUNCTIONS

IX. ANALYSIS

	Less than 10% of the time	Between 11 - 25% of the time	Between 26 - 40% of the time	Between 41 - 55% of the time	Between 56 - 70% of the time	Between 71 - 90% of the time	Greater than 90% of the timen
The board of director of the company which I am a director:							
33.requires the operating management to submit formalized, systemetic search for and evaluation of opportunities for new markets, new investments, acquisition, etc.	-------	-------	-------	-------	-------	-------	-------

34. requires the operating management to submit competetive alternatives on proposals which require decision.	-------	-------	-------	-------	-------	-------	-------
35. encourages the staff personnel to conduct studies which can benefit the company.	-------	-------	-------	-------	-------	-------	-------

X. FUTURITY.

	Less than 10% of the time	Between 11 - 25% of the time	Between 26 - 40% of the time	Between 41 - 55% of the time	Between 56 - 70% of the time	Between 71 - 90% of the time	Greater than 90% of the time
The board of directors of the company which I am a director:							
36. requires the operating management to carry out long-term forecasting of sales, profit and the nature of the market.	-------	-------	-------	-------	-------	-------	-------
37. requires the operating management to carry out long-term forecasting of the technology relevant to the							

product offered by the company.	-------	-------	-------	-------	-------	-------	-------
38. requires the operating management to carry out planning of long-term investments.	-------	-------	-------	-------	-------	-------	-------

C. CONTROL FUNCTIONS.

XI. REVIEWING

	Less than 10% of the time	Between 11 - 25% of the time	Between 26 - 40% of the time	Between 41 - 55% of the time	Between 56 - 70% of the time	Between 71 - 90% of the time	Greater than 90% than 90% time
The board of directors of the company which I am a director reviews the following factors:							
39. reviewing of company policies.	-------	-------	-------	-------	-------	-------	-------
40. reviewing of company programs.	-------	-------	-------	-------	-------	-------	-------

41. reviewing of the overall company performance. ------- ------- ------- ------- -------- ------- -------

XII. COMPARISON

	Less than 10% of the time	Between 11 - 25% of the time	Between 26 - 40% of the time	Between 41 - 55% of the time	Between 56 - 70% of the time	Between 71 - 90% of the time	Greater than 90% of the time
The board of directors of the ocmpany which I am a director performs the following activities:							
42. comparing the current results with those of previous periods.	-------	-------	-------	-------	-------	-------	-------
43. comparing results against established budgets.	--------	-------	-------	-------	-------	-------	-------
44. comparing current results with those of competitors.	-------	-------	-------	-------	-------	-------	-------

45. using the company objectives

as a standard of performance. ------- ------- ------- ------- ------- ------- -------

D. BOARD OPERATION.

XIII. INFORMATION.

	Extremely inadequate	Very inadequate	Moderately inadequate	Neither inadequate nor adequate	Moderately adequate	Very adequate	Extremely adequate
	(0-10%)	(11-25%)	(26-40%)	(41-55%)	(56-70%)	(71-90%)	(90-100%)
The board of directors of the company which I am a director:							
46. considers that whatever information which is requested from the operating management							

about the company is: --------- --------- --------- --------- --------- --------- -------

47. considers that the information submitted by the operating management to the board for discussion/decision is: --------- --------- --------- --------- --------- --------- -------

48. considers that the operating management's preparation of the agenda for the board meeting is: --------- --------- --------- --------- --------- ------- -------

APPENDIX C. FACTOR ANALYSIS

Results of Factor Analysis

Decision making

Item	Factor
I 1	0.634
I 2	0.661
I 3	0.803
I 4	0.830
I 5	0.763
I 6	0.697
I 7	0.739
I 8	0.725
I 9	0.811
I10	0.690
I11	0.750
I12	0.817
I13	0.788
I14	0.670
I15	0.683
I16	0.640
I17	0.678
I18	0.740
I19	0.709

I20	0.742
I21	0.799
I22	0.768
I23	0.811
I24	0.808
I25	0.832
I26	0.811
I27	0.727
I28	0.509
I29	0.650
I30	0.673
I31	0.673
I32	0.734

Planning

Item	Factor
I33	0.908
I34	0.902
I35	0.890
I36	0.918
I37	0.862
I38	0.910

Control

Item	Factor
I39	0.911

I40	0.915
I41	0.899
I42	0.911
I43	0.920
I44	0.674
I45	0.882

Board operation

Item	Factor
I46	0.969
I47	0.969
I48	0.967

APPENDIX D. INDEPENDENT VARIABLES

Means for the Independent Variables

Firm	R1	R2	R3	R4
BM 1	64.06	45.56	60.24	70.00
BM 2	67.56	56.33	59.86	70.33
BM 3	67.08	55.00	60.48	71.94
BM 4	68.37	64.89	64.58	67.61
BM 5	65.29	53.19	59.05	66.94
BM 6	62.66	47.92	60.18	66.67
BM 7	72.34	68.54	68.89	79.17
BM 8	63.28	52.50	59.76	72.78
BM 9	63.84	45.83	60.24	64.44
BM 10	70.42	67.61	60.00	68.89
BM 11	69.43	58.45	67.71	72.52
BM 12	77.23	71.39	72.08	82.15
BM 13	71.14	52.35	65.39	76.67
BM 14	63.05	54.38	61.25	67.50

FD 1	85.55	85.52	86.07	88.33
FD 2	87.79	86.39	88.10	87.22
FD 3	82.99	82.71	82.50	81.25
FD 4	81.95	81.67	79.88	83.33
FD 5	84.30	84.29	82.86	89.62
FD 6	81.32	76.94	73.57	82.78
FD 7	71.25	64.17	69.64	80.42
FD 8	71.58	49.83	66.14	70.67
FD 9	78.45	48.89	74.88	76.67
FD 10	79.67	66.00	81.25	83.75
FD 11	83.43	76.63	84.00	83.75
FD 12	74.45	46.25	63.04	72.08
FD 13	66.20	67.60	71.86	73.10
FD 14	71.78	62.33	66.29	77.67

WD 1	76.88	71.67	74.64	80.83
WD 2	72.86	81.67	83.48	73.89
WD 3	59.52	45.63	52.41	59.38
WD 4	62.94	53.75	56.79	62.50
WD 5	62.15	52.08	56.43	63.33
WD 6	63.79	58.02	60.45	68.96
WD 7	65.47	58.75	61.19	71.11
WD 8	65.47	59.00	62.71	74.00
WD 9	63.00	57.50	61.86	72.33
WD 10	61.17	60.67	64.57	69.72
WD 11	53.81	43.07	50.57	58.47
WD 12	60.42	45.28	51.43	61.11
WD 13	61.77	52.50	63.57	69.44
WD 14	68.91	53.89	60.95	67.78

BM -- Building Materials

FD -- Food

WD -- Wood-based

R1 -- Decision making

R2 -- Planning

R3 -- Control

R4 -- Board operation

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