

**HEADQUARTER-SUBSIDIARY RELATIONSHIPS
IN MULTINATIONAL CORPORATIONS**

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HEADQUARTER-SUBSIDIARY RELATIONSHIPS IN MULTINATIONAL CORPORATIONS

STOCKHOLM SCHOOL OF ECONOMICS

IIB Institute of International Business

EFI The Economic Research Institute



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Preface

The first large research project carried out at the Institute of International Business (IIB) at the Stockholm School of Economics was an intensive study of the headquarters-subsidary relationships in six Swedish multinational corporations. This study was initiated in 1976 with the active and very constructive support of the late Dr. Björn Lundvall, Chairman of the Institute's Board 1975-1980.

Results from the study have been reported in several articles and papers. This book provides the first comprehensive analysis of the systems by which the MNC's studied managed their headquarters-subsidary relations.

As is common practice, Mr. Leksell, together with his collaborators, has been free to design, carry out and implement the research project. The author is solely responsible for the conclusions drawn in his report.

Stockholm, April 14, 1981

Sven-Erik Johansson
Professor
Member of the IIB Board

Lars Otterbeck
Associate Professor
Director of the IIB 1975-1980

Acknowledgements

The completion of any research project is always heavily dependent on the contributions and assistance of others. This study is no exception, and there are many to be thanked.

I owe a great debt to the numerous managers in the firms investigated for their interest in this study and the confidence and patience shown to me. It was the willingness of these firms to participate and the lengthy discussions with their managers that made this study possible.

I am heavily indebted to my esteemed colleagues, Gunnar Hedlund, Ulf Lindgren, and Lars Otterbeck at the Institute of International Business at the Stockholm School of Economics. With Gunnar Hedlund as coordinator, we have jointly worked on the research project "Management of Foreign Ventures" which forms the basis for this study. I have greatly benefited from this teamwork, and without the talents and contributions of my colleagues, this study would not have been possible. They have all contributed by also reading and commenting on the entire manuscript. Kjell Spångberg and Ole Oftedal at the Institute have also offered valued support and been a continuous source of ideas.

I am especially grateful to Lars Otterbeck, former director of the Institute, for his guidance and continuous support of my work, as well as for creating a highly pro-

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I am heavily indebted to Professor Sven-Erik Johansson of the Stockholm School of Economics for supervising my doctoral work. He initiated my interest in research, and his high standards, incisive comments and supportive guidance have not only encouraged me to complete this study, but also greatly helped me to clarify my thinking. The perceptive comments and guidance of Professor Anders Edström have also been important for the completion of the study.

My work at Harvard Business School and University of Hawaii during 1978-1979 was a major catalyst and an important factor for the direction of this study. I wish to acknowledge the support and comments given to me, particularly by Professors Charles Christenson, Louis Wells, and Richard Vancil of Harvard, and Dean David Heenan at the University of Hawaii. I have also greatly benefited from discussions with Professors Lars-Gunnar Mattsson and Bertil Näslund of the Stockholm School of Economics, Igor Ansoff of EIASM and the Stockholm School of Economics, José de la Torre and Yves Doz of INSEAD, Howard Perlmutter of Wharton School at the University of Pennsylvania.

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Finally, I wish to acknowledge the generous financial support given to me by the Institute of International Business to conduct and complete this study.

Fontainebleau in March, 1981

Laurent Leksell

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1 Introduction and Research Methods

The basic purpose of this study is to investigate how multinational companies coordinate and control the activities of their foreign subsidiaries. The multinational company (MNC) has since its emergence attracted considerable attention and controversy. The growth and global spread of the MNC have made these organizations a crucial component in the world economy.

The controversy regarding MNCs is reflected in that for some, these organizations became the scapegoat for many of the problems we have witnessed in the advanced industrial societies. The MNC has been blamed for creating inflation, for exploitation of host countries, and disruption of monetary systems and governments. By others, the MNC has been considered as one of the few strongholds of employment and continued growth, and as one of the few instruments we possess for improved global resource allocation.

During the last three decades, extensive research has been conducted on different aspects of the MNC. Today a great deal is known about the growth and foreign investment behavior of MNCs, as well as their economic and socio-political influence on host countries and other interest groups. Through numerous research contributions, we have also gained considerable knowledge over the years about the business strategies of MNCs and their policies in different functional areas such as finance and marketing.

What we still know very little about is the nature of the continuous management processes that take place within the MNC. Such questions as how internal policies are implemented, how headquarter-subsidiary relationships are managed, and the nature of coordination and control procedures and processes within these firms are still largely unanswered. It is questions like these that are addressed in this study.

PURPOSE

The overall purpose of this study divides into addressing two major questions. First, how are headquarter-subsidiary relationships managed in MNCs? Second, what factors tend to determine or influence the need for and mode of managing the relationships?

These questions are of importance because we lack systematic empirical knowledge about the nature of intra-organizational relationships in MNCs. Without knowledge about the internal functioning of these firms, we are in a poor position to understand or to improve their behavior.

Before specifying and delineating the basic research questions into a more operational research purpose, we will introduce an important definition. By *headquarter-subsidiary-relationships* in MNCs we mean, throughout this study, headquarter *coordination and control* of the foreign subsidiaries. By *management of headquarter-subsidiary* we mean *instruments, procedures and processes* used by headquarters to *coordinate and control* the foreign subsidiaries. We will return below to other definitions used in this study.

More precisely, the purpose of this research is the following:

1. To describe how some environmental and strategic characteristics of the MNC influence the potential needs and requirements for coordination and control of the foreign subsidiaries.
2. To identify which instruments, procedures and processes headquarters in MNCs use to coordinate and control foreign subsidiaries.
3. To describe the design and functioning of these instruments, procedures and processes, i.e. to describe the modes of managing the headquarter-subsidiary relationships.
4. To analyze how the environmental and strategic characteristics of the MNC may influence the mode of managing the relationship.

To clarify these purposes we will delineate them further as well as note some important limitations. We are concerned with how the MNC headquarters manage the relationships. We are not concerned with the *purpose* of coordination and control but only the *mode* of coordination and control.

In other words, we are investigating the design and functioning of the instruments, procedures and processes used for purposes of coordination and control of the foreign subsidiary as a whole. Thus, we are not going into the detail required to discuss coordination and control of a specific business activity or function, e.g. production planning, production or marketing.

When describing the design and functioning of the various instruments, procedures and processes, we are interested in both their design and how they are actually used. While the former dimension is static, the latter is clearly more dynamic and process-oriented. "Functioning" can also be seen as how the specific instrument is used by headquarter to manage the relationships with the foreign subsidiaries. The specification into instruments, procedures

and processes does not mean that they constitute independent categories of coordination and control. Most coordination and control instruments, e.g. the budget system, have both a static design dimension and a dynamic dimension when in use. Similarly, some forms of coordination and control may not have any static design dimension but are only dynamic and process-oriented, e.g. coordination through informal communication between headquarter and the subsidiaries.

In identifying and describing environmental and strategic characteristics, which may influence the need for as well as the mode of coordination and control (purpose 1 and 4 above), the unit of analysis is the characteristics of the MNC as a whole rather than the characteristics of a specific subsidiary. We will return to this in a subsequent section.

Research purpose 3 above does not imply an attempt to create a typology of various modes of managing headquarter-subsidiary relationships in MNCs. Such an attempt would require an unambiguous classification of independent forms of coordination and control. As will be detailed, many instruments, procedures and processes do not have clear boundaries, nor are their functions prespecified and given within any MNC or among different MNCs.

It is evident that the four research purposes are of different kinds. Purposes 1, 2 and 3 are explorative and descriptive, while purpose 4 would in a traditional sense be classified as causal. The different nature of the four purposes is also reflected in our choice of research methods.

The scope and limitations of purpose 4 ought to be clarified. Instead of strict causation (see Goode, et al., 1952), we are interested in finding potential associations among variables. More precisely, we are interested in analyzing variables within or outside the MNC system, which may help us to explain the design and functioning of the

instruments, procedures and processes of coordination and control. We consider identification of associations to be as important for our purpose as their direction or strength. Interdependence among variables is correspondingly equally interesting as any dependence.

The clarification above implies a different attempt than to investigate for any strict causation. Emory (1976, p. 83) states that as soon as the research is concerned with asking *why*, then it is causal. This traditional dichotomy between descriptive and causal studies is often made, however, without regard to the nature of the area of study.

To investigate for causality, we would need to locate all relevant independent and dependent variables. We would furthermore have to predict their position in relation to any extraneous variables (cf. Kish, 1959). These requirements have in general been developed to facilitate the design of experimental research. In research on business management and organizations these requirements have also been imposed, often without any second thought, on non-experimental research designs.

In fact, in the social sciences we are seldom able to conduct controlled experimental research. Still, it is of interest to try to describe and explain social phenomena. Instead of theory verification, we are interested in generating new theory through systematic observation and description of empirical data (cf. Glaser and Strauss, 1967).

By explicitly recognizing that in the social sciences we are often moving in a grey area of scientific discovery, where variables and relationships among them are neither easily identified nor stable, the word "causation" changes its meaning. "Association" then becomes a more relevant concept. Our purpose 4 should be seen in this light.

MOTIVES FOR THE STUDY

The primary motives for this study are twofold. First, by investigating the design and functioning of various instruments, procedures and processes for coordination and control, valuable insight can be gained about the internal functioning of the MNC. Second, by analyzing what may explain or influence the design and functioning of various forms of coordination and control, we are in a better position to understand and to improve the internal functioning of these firms. These motives are not only confined to the study of MNCs. If we understand the relationships between headquarters and subsidiaries in these firms, this is likely to also have a bearing upon our understanding of the functioning of other types of complex organizations.

Our motives described above are clearly also related to the present state of knowledge in the area of study. Earlier research contributions in the area of study will be extensively discussed in Chapter 2. Nevertheless, it is of value here to summarize briefly the scope of earlier research, as it may cast further light on our purposes and motives with this study.

In general, little research has been conducted on the needs of and requirements for coordination and control of foreign subsidiaries in MNCs (our purpose 1). Earlier studies have also focused primarily on the purpose rather than the method of control (our purposes 2 and 3).

Earlier research have in general focused on the subsidiary, and tried to explain the mode of control from the characteristics of the subsidiary. These studies have explicitly or implicitly assumed that MNCs are homogeneous organizations, while it is subsidiary-specific factors which determine the need for and modes of coordination and control (see, for example Alsegg, 1971; Garnier, 1980).

Instead, it can be argued that the needs for and modes of coordination and control of foreign subsidiaries are

primarily influenced by the characteristics of the MNC as a whole, e.g. product program, industry and organization structure (purpose 4). We will return to this argument below.

Numerous research contributions have been made which describe and analyze various methods of coordination and control. These studies have, however, primarily been confined to single instruments, procedures and processes and to other types of organizations than MNCs.

We are explicitly concerned with an empirically based study of a whole range of different forms of coordination and control in MNCs. We are also concerned with potential relations and interactions among various instruments, procedures and processes. This interest is reflected in our purposes 3 and 4.

BACKGROUND OF THE STUDY

Before turning our attention to the research design and methods, we will describe the background of this research. This study is a part of a large-scale project named "Management of Foreign Operations" (MOFO), which was initiated in 1977 by the Institute of International Business at the Stockholm School of Economics.¹

The general purpose of the MOFO project was to investigate how MNCs through foreign subsidiaries and affiliated companies manage interface relationships of various kinds, e.g. intra-organizational relations and external relations between the MNC and its host environment. Furthermore, this project aimed at investigating how the management of these relations affected the goal-achievement of the MNC, as well as how they should be managed in order to attain existing goals (for a detailed description, see Hedlund

¹ The research team in this project consisted of Gunnar Hedlund (project coordinator), Ulf Lindgren, Lars Otterbeck and the author.

and Otterbeck, 1977; and Hedlund, Leksell and Otterbeck, 1977).

The MOFO project involved a very intensive field study of six Swedish multinational corporations. This report is based on a separate analysis of the empirical data generated from the MOFO project. Several other reports have also emerged from this project during the last few years (see Edström, 1980; Hedlund, 1977, 1979 and 1980; Johansson, et al., 1980; Leksell, 1979, 1980; Leksell and Lindgren, 1980; Otterbeck, 1979a, 1979b and 1980).

The MOFO project has also been complemented by several related empirical studies on, among other things, the integration of foreign acquisitions, international divestments, and surveys on the autonomy of Swedish subsidiaries (see annual reports of the Institute, 1977-1980).

After its initiation the MOFO project was also expanded, through collaboration with other researchers, to include fairly similar but less intensive studies on British, German, Japanese and US multinationals.¹

RESEARCH DESIGN

The design of this study is based on the MOFO project. Although the design of the MOFO project has been described elsewhere (see references in the previous section), we will also describe it here.

The project involves the in-depth comparative study of six Swedish MNCs. In each of the MNCs, a number of foreign subsidiaries and affiliated companies are also intensively studied. The selection criteria and selection procedures are further described below.

¹ These projects have been conducted by B.R. Baliga, University of Wisconsin at Eau Claire; A. Edström, Institute of International Business at the Stockholm School of Economics; A.R. Negandhi, University of Illinois at Urbana-Champaign; and M.K. Welge, University of Cologne.

The research design with a limited number of cases was chosen to allow for an intensive study of each MNC as a unified whole. More specifically, the case study approach - contrary to e.g. a statistical study of a large sample - was chosen for the following three reasons: (For a detailed discussion of different aspects of case research, see Glaser and Strauss, 1967; Stymne, 1972; Sjöstrand, 1973; Valdelin, 1974; Alloway, 1977; Östman, 1977; Hedlund and Hägg, 1978; and Lindgren, 1980.)

1. The lack of systematic empirical knowledge in the area of study made it difficult to construct unambiguous research instruments. Earlier research allowed neither a prespecification of relevant variables nor the establishment of priorities among different dimensions. It was therefore considered necessary to adopt a research method which permitted generation of theory and which was better suited to a less specific conceptual frame of reference than in e.g. statistically processed surveys.
2. The process-oriented and multi-faceted nature of the research made it likely that we would have to deal with many multi-dimensional and situational variables. Similarly, the research questions largely involved qualitative assessments of complex and interrelated data. A research method like the case method, which does not unnecessarily constrain the complexity of the issues, was considered to be the most appropriate.
3. Another motive for the research was to generate descriptions which subsequently could also be used for educational purposes. The desire for in-depth descriptions made a case study approach the most economical and feasible research design.

SELECTION PROCEDURES

The selection of MNCs was based on the ideas and framework which were used to formulate the research questions. Besides the restriction that each participating firm should be of Swedish origin, three major criteria with decreasing priority guided the selection of research sites:

1. Close collaboration as well as an interest in the study among the participating firms was considered necessary in order to get complete access to different and often confidential types of data within each research site.
2. Each participating firm should have a structure which allowed an investigation of foreign subsidiaries that differed in ownership structure and location. This was due to an interest in the management of different types of foreign establishments as well as a belief that the characteristics of the subsidiary and of the host country influenced the nature of the headquarter-subsidiary relationship. We will return to this issue below.
3. Each research site should preferably exhibit differences regarding their operative characteristics, e.g. technology, size, etc. At the time of selection the operative characteristics which should guide the selection procedure were not fully specified or operationalized, since there was a lack of research which could be used for specification purposes.

It is evident that the three selection criteria are partly conflicting. Several departures from the "ideal" sample therefore had to be made. The total population of Swedish MNCs which more or less fulfilled the second criterion was at that time fourteen firms. All these firms were contacted. Only six firms were willing, however, to

participate in the study, given the conditions stipulated by the first criterion. All these firms were included in the sample. As a consequence, the third criterion did not influence the procedure very much.

Within each firm the research project was approved either by the corporate board of directors or by the corporate chief executive officer (CEO). To ensure close collaboration, the researchers were introduced to the rest of the organization through a letter or a PM which clearly stated that the research was sanctioned by the board and/or by the CEO.

The characteristics of each participating firm are described in great detail in Chapter 3. We will therefore not make any further description here.

Within each research site a number of foreign affiliates were selected for detailed study. The affiliates were selected according to the following criteria:

1. In each MNC two joint ventures and two wholly-owned subsidiaries should be investigated. One of each of these two types of entities should be located in a less developed and an industrialized country, respectively. This criterion reflects the belief that the location and ownership structure of the affiliate influenced the nature of the intra-organizational relationships.
2. Each foreign entity should be similar in manufacturing operations, product program and size.
3. Each foreign entity included in the sample should be of "strategic importance" for the MNC as a whole. This criterion was established to avoid inclusion of "marginal" entities in the sample. The assessment of "strategic importance" was made by corporate top management in each MNC.

The selection of subsidiaries within each research site was made by the researchers together with the CEO and other members of the corporate top management group. The managers were allowed to influence the final selection in order to stimulate further interest in the research project.

Some departures had to be made from the "idealized" selection procedure. These departures were due to the fact that either the MNCs did not have affiliates which satisfied all of the criteria or there was a conflict with the third criterion and the interest of top management.

Before describing the outcome of the selection procedure, we will define the meaning of "joint ventures" and "less developed countries". Joint ventures were defined as long-run or permanent collaboration between one or more partners in the form of independent legal entities in which the MNC owns less than 100 per cent of the equity. Attempts were made, among other things, to include joint ventures in which the MNC owned not less than 20 per cent of the equity and not more than 75 per cent. In the following discussion we do not make a distinction between wholly owned or partly owned entities unless stated otherwise. Both forms are called subsidiaries. For the identification of less developed and industrialized countries, the United Nations' country classification was used.

In total, twenty-seven foreign affiliates were included in the sample of subsidiaries. Three of these twenty-seven were investigated but not included in the final analysis because they did not fulfill the second selection criterion above.

The characteristics of the sample of subsidiaries according to the first selection criterion are shown in Table 1:1.

The final twenty-four wholly owned subsidiaries and joint ventures included in the research were distributed as follows among the six research sites: in companies I and

Table 1:1. Characteristics of sample of the MNC's foreign establishments (n = 27)¹

	Wholly owned	Joint venture
Developed countries	Belgium, Finland, Holland, Spain, United Kingdom TOTAL: 8	Canada, Denmark, Spain, USA TOTAL: 6
Developing countries	Brazil TOTAL: 7	Brazil, India, Iran, Venezuela TOTAL: 6

¹ All establishments except one in Venezuela, one in Spain and one in Brazil have manufacturing operations. These have not been included in the final analysis of the research data.

II five entities were investigated in each. In companies III and IV four entities were investigated in each, and in companies V and VI three entities were investigated in each. These latter two firms did not have any joint ventures located in industrialized countries.

Some comments on the selection procedures

The selection of research sites in comparative case research is of importance as the characteristics of the sites determine the validity of the research results and the possibilities of generalizing the results to other situations. The "quality" of the selection must be judged according to the relevance of the selection criteria in relation to the research questions, and also to the number of cases included in the final sample.

As noted above, a research design based on case studies was considered to be the most appropriate as we were interested in a complex system of more or less unique intra-

organizational relationships in each MNC. The case method was also chosen to allow us to view the relationships as a unified system.

The fact that we limited ourselves to the investigation of Swedish MNCs reduced the total population drastically. As the selection procedures were intended simultaneously to meet two sets of criteria - at the level of the firm as a whole and at the level of the subsidiary - the potential population was further reduced.

There is a trade-off involved here. We can try to select the research sites using criteria which are applicable only on the level of the firm as a whole. Alternatively, we can try to select firms which satisfy some subsidiary specific criteria considered relevant for the area of study. It is clear that a conflict between the two may easily arise if they are used simultaneously.

In retrospect, we consider that for our purpose the careful selection of comparative cases, where similarities and differences between various dimensions of the firm as a whole are explicitly matched, would have been the superior alternative. Still, this was not done, as an attempt was made to simultaneously satisfy criteria at the subsidiary level, e.g. ownership structure and location of the subsidiaries.

It is possible that our ability to generalize the research findings outside the specific cases became unnecessarily restricted by the selection. With a more systematic matching of comparative cases, a larger variation in the sample of MNCs might have been possible (cf. Chapter 3). Consequently, our ability to draw conclusions and generate hypotheses, as well as to a certain extent disprove false hypotheses would have been greater. We should therefore bear in mind that the possibilities of generalizing the research results are confined to MNCs similar in nature to those in the sample.

While the selection criteria to a certain extent may have limited possibilities of generalizing the results to other populations and settings, they have not necessarily reduced the internal validity of the research design, nor the external validity of the results for populations similar to the investigated population (cf. Cambell and Stanley, 1963).

By external validity we mean the extent to which the research results are generalizable. Internal validity relates to the accuracy of the research methods. By having a controlled and fairly large variation in subsidiary specific factors within each MNC, we are more likely to capture different forms of intra-organizational relationships. Consequently, by recognizing that differences in subsidiary-specific factors may influence the relationship, we avoid a potential limitation of generalizability to populations similar to the investigated sample, as well as achieve greater accuracy in the results.

As all subsidiaries investigated were perceived by corporate management to be of "strategic importance" for the MNC as a whole, there is less risk that our observation of coordination and control processes is affected by the existence of "marginal" entities.

In spite of this, variations in factors such as subsidiary size and growth exist within each MNC, as well as among the MNCs. The importance of such variations for our purpose is reduced, however, as the entity is still important for the firm as a whole.

The number of research sites as well as the size of the sample of subsidiaries were largely determined by the access criterion and research economy, respectively. The latter consideration became important as it was regarded as necessary to visit the foreign subsidiaries. Although there is some truth in the common saying that "large samples are always better than small", we do not believe that, given the Swedish context, an increase in the number of research

sites would have had any major impact on the research results. Nor do we believe that a larger sample of subsidiaries within each MNC would have had any major impact on the results. This conclusion will be substantiated in the next section when we describe the data collection procedures.

RESEARCH METHODS

The purpose of this section is to describe the primary methods of securing research data. The following aspects are described: general collection procedures, the type of data collected, the structure of the data, the major phase of the data collection process, measurements and variable operationalizations, and the time horizon of the data. The section concludes with a brief discussion regarding the potential impact of the data collection procedures on the validity of the research results.

In general, the data collection procedures were characterized by a desire rather to collect too much data than too little. This desire was a reflection of difficulties in developing a coherent conceptual framework, which would have made it possible to prespecify and operationalize all potential variables of interest. Instead of strict variable operationalization prior to the data gathering phase, a more risky approach with low specification and operationalization was preferred. This was done in order not to exclude the collection of relevant data because of a framework which later might have proven to be incorrect and misleading. Initially, the framework was kept rather loose in order to allow for a more continuous development of a framework based on an interaction among intuition, earlier research and cumulative experience gained from the research process.

This does not imply that the procedure was characterized by an unsystematic and unstructured collection of data. On the contrary, several measures were undertaken to struc-

ture the procedure and to standardize certain types of data. The four most important measures were to conduct a pilot study within one of the sites, to spend a considerable amount of time within each research site, to collect a certain amount of standardized information through pre-specified interview guides,¹ and to conduct some large sample surveys on certain aspects of the intra-organizational relationships. We will return to these measures below.

The first step in the data gathering phase was to establish a contact person within each research site. The contact person was in general appointed by the corporate CEO. In four of the sites the contact person was the corporate or divisional controller. In two firms the contact person was the vice president in charge of marketing.

The primary roles of the contact person were to collect internal company data used in the research, to introduce the research team to other organization members who were going to be interviewed, and to function as a general discussion partner. The last role was important as further insight could be gained and clarification made about company matters.

Types of data

Data were collected both for the MNC as a whole and for each subsidiary investigated. Four major types of data were collected:

1. Primary external material specifically about the MNC and its subsidiaries. Typical material of this kind included articles and books about the firm, annual reports, etc.

¹ The interview guides are available upon request from the Institute of International Business at the Stockholm School of Economics.

2. Secondary external material about the environment of the MNC and its subsidiaries. Typical material included industry studies, descriptions of host countries, etc.
3. Primary internal material in written form. Typical material of this kind included letters, telexes, company policies and procedures, manuals, job descriptions, auditor's reports, etc.
4. Primary internal material in the form of interviews with headquarter and subsidiary managers.

Interviews were conducted with senior corporate and divisional managers in line and staff positions. The policies and management procedures of most functional areas such as production, personnel, marketing and finance were investigated in each firm. This created an understanding of the structure and operations of the firm as a whole.

To investigate how the MNC managed the headquarter-subsubsidiary relationships, another type of data was collected:

- Primary written material such as internal financial reports, instructions, manuals, board minutes, letters, license and joint venture agreements, etc., concerning the subsidiaries investigated. Written material which concerned the headquarter-subsubsidiary relationships in general, like manuals and instructions for the foreign entities, were also collected. Overall this material was very detailed and involved in some instances business letters from the corporate CEO to subsidiary presidents or joint venture partners, for example.
- Interviews with executives involved with the international operations of the MNC, as well as the coordination and control of the foreign subsidiaries.

This data gathering was primarily aimed at getting an understanding of how the headquarter-subsidiary relationships were managed in general, and the specific characteristics of the investigated subsidiaries.

Furthermore, in order to explicitly investigate the dynamic and process oriented dimensions of the headquarter-subsidiary relationships, a number of "critical incidents" were selected for each investigated subsidiary.

These incidents primarily concerned problems in the subsidiaries, major decisions of an operative and strategic nature and/or a conflict between headquarters and the foreign entity. The incidents were not prespecified but were generated from the current situation in the subsidiary. A critical incident could, for example, range from a major investment decision, transfer of a subsidiary manager, a conflict regarding transfer price levels, a profit decline in the subsidiary, etc. For each subsidiary investigated two incidents were selected; one of an operative and one of a strategic character.

The critical incidents were selected with the help of top management and the contact person. After identification of the incident and the study of written material concerning the incidents, all managers involved with the incident at both corporate, divisional and subsidiary levels were interviewed. Questions were asked about the nature of the incident: how the persons involved perceived the incident, how it was or had been managed, which decisions were taken, and what problems had arisen due to the way the incident was managed. Through the interviews the handling of the incident could be followed through different management levels in the MNC. This complemented the understanding of the management processes within each research site.

The foreign subsidiaries were visited after completion of the data collection at headquarters. Interviews were conducted with a number of subsidiary managers focusing on

the strategy and operations of the subsidiary and how the subsidiary perceived the relationships and the critical incidents.

The visits at the subsidiaries were followed-up by a new series of interviews at headquarters. The purpose of these interviews was in general to clarify any issues or inconsistencies.

The structure of data

Interviews and interview questions were primarily fitted to fulfill the need for collection of a specific type of data. The interview was also partly fitted to the respondent and his major areas of responsibility. The data collected in this form were fairly unstructured and of a qualitative nature.

To complement this form of data with more structured and standardized information, two interview guides were developed, one to be used at headquarters and one to be used at the subsidiary level. As noted above, the guides were developed to ensure a certain standardization of data, more precise measurements, and comparability across the six research sites.

The interviews were with few exceptions conducted by two persons. The results of the interviews were written down directly after the interview. On the average, each interview lasted between three and four hours.

Interviews were conducted at different hierarchical levels at both headquarters and the subsidiaries. At headquarters, interviews were made with line and staff managers, both at the corporate level and in the divisions. Approximately 15-25 headquarter executives were interviewed in each MNC investigated. Some individuals were also interviewed several times. In the subsidiaries interviews were always conducted with the subsidiary president and the vice presidents in charge of marketing and finance. The most

senior host country national working in the subsidiary was in general also interviewed. On the average, about four managers were interviewed at each subsidiary.

In case of joint ventures, some senior representatives of the partner were with few exceptions interviewed.

The research process

The data collection procedures followed a series of specific phases worth mentioning here to complement and summarize the previous descriptions. The sequence was the following:

1. Introductory interview with the CEO and the contact person. Selection of subsidiaries and identification of "critical incidents" in each subsidiary.
2. Collection and analysis of externally available primary and secondary material.
3. Collection and analysis of written internal material regarding the characteristics of the MNC as a whole.
4. Collection and analysis of internal written material regarding the headquarter-subsidiary relationships, the characteristics of the subsidiaries investigated and critical incidents.
5. Interviews with headquarter executives regarding the characteristics of the MNC as a whole, the nature of the headquarter-subsidiary relationships, the characteristics of the subsidiaries investigated and the management of critical incidents.
6. Interviews with subsidiary managers and joint venture partners regarding the headquarter-subsidiary relationships, subsidiary characteristics and critical incidents.
7. Follow-up interviews at headquarters.

The duration of this process varied between one and three years in each of the MNCs. During the process a close contact was established with the research site. During the process in-company seminars as well as seminars with all participating firms were conducted. Research results and the researchers' interpretations of data were discussed with company executives during these seminars.

Overall, the procedure resulted in a considerable collection of various, often very detailed, data. The procedure gave extensive knowledge about the environmental and strategic characteristics of each MNC, the internal functioning, policies and procedures of these firms, and their needs and modes of coordination and control of the foreign subsidiaries.

Measurement instruments

Our interest was focused primarily on both the design of different instruments, procedures, and processes of coordination and control, and their functions. Each of these aspects required different forms of measurements, which makes it useful to separate them here.

Design refers to the structural characteristics of the control and coordination instrument. The design is often fairly stable over time. As long as the object of measurement, i.e. the specific instrument, is easily identified, no particular measurement problems arise. A typical example is the design of the financial reporting system. The design of this instrument is usually described in company manuals and therefore easily accessible and measurable.

Other forms of instruments are not so easily identified or measured. The design of less specific and multi-dimensional instruments, procedures and processes, e.g. informal communication between headquarters and the foreign subsidiaries, were measured in two complementary ways: through prespecified questions and in a more unstructured

fashion during the field work. The former was done with the help of the interview guide, while the latter was done through a series of interviews which progressively clarified both the design and functioning of the specific instrument under study.

The informal communication system was described, for example by asking how often managers at headquarters and the subsidiary were in contact with each other and in which form these contacts were made, e.g. letters, telephone, telex, personal visits. These dimensions of the design of the informal communication system were measured in a standardized fashion with the help of the interview guide. To investigate other dimensions of the system, e.g. with whom subsidiary managers communicated, more unstructured interviews were used. Many of these dimensions are unique for each setting and are often impossible to prespecify.

The specific measurements of individual variables, choice of scales, and measurement problems are further described when the variables appear in subsequent chapters.

Time dimension of the research data

The research design and research methods are based primarily on a cross-sectional analysis of comparative cases. However, there is a longitudinal dimension involved, too.

First, part of the data collected was of a historical nature. Written material studied in each company, e.g. agreements and letters, could be several years old. The history of each site was also analyzed through secondary material. Data on the subsidiaries investigated were collected for several years. For example, all subsidiary board minutes, auditors reports and internal financial statements were investigated for the last three to five years (with 1976 and 1977 as the last years). Similarly, the history of all critical incidents was traced. In these respects the research was longitudinal retrospectively.

The second longitudinal dimension relates to the length of the field work (1-3 years) and the contacts upheld with the sites after completion of the field work.

The longitudinal dimension of the research design and research methods improved the interpretation of the data, as the experience gained from the historical analysis could be added. While the longitudinal dimension has not been taken explicitly into consideration when presenting the data herein, it's worth noting its influence on the interpretation of the data.

Some comments on the research methods

As a series of interviews was conducted in each site, questions could be repeated and clarification made. To improve reliability, interviews were often repeated with the same individual. In general, each interview phase started with lower level managers and proceeded upwards in the hierarchy. Before the subsidiary visits, the interview phase at headquarters had in general advanced up to the level of corporate executive vice presidents. Follow-up interviews were in general made with the CEO and some other key headquarter managers.

The sequential phasing of interviews upwards in the hierarchy facilitated the structuring of the interviews and the measurement of qualitative data. It also increased the understanding of the functioning of the headquarter-subsidiary relationships. By first interviewing lower level managers, a better understanding was gained about the ongoing management of the MNC. More precise and penetrating questions could then be asked higher level managers.

A second form of measurement of the functioning of various instrument, procedures and processes for coordination and control was made through the study of the critical incidents. By following actual decision processes in the organization, the understanding of how the relationships

actually were managed was greatly improved. It became also possible to check the accuracy and reliability of respondents' answers.

The methods had both shortcomings and advantages. The validity of the measurements was probably improved as the variables of interest were not unnecessarily narrowly defined. As we tried to capture complex and dynamic processes, it was important not to restrict data collection by defining the "content" too narrowly.

Validity and reliability were also improved by the magnitude of data and the way the collection procedure was structured. The validation and checking of reliability of empirical data were facilitated by simultaneously collecting written material and through interviews. The result of the interviews was checked against the written material and against other interview results. In case of large discrepancies, the interview was repeated or the interpretation of the initial results was modified.

The major shortcomings with the approach relate to reproducibility and potential interviewer biases. The collection of unique situational data together with partly qualitative measurement techniques clearly make it very difficult to reproduce the research. The low degree of reproducibility is, however, not only due to the research design and research methods. Headquarter-subsidiary relationships in MNCs are dynamic and complex phenomena which are not stable over time.

Given the instability of the international business environment and the uniqueness of the phenomena, a trade-off has to be made between external validity and reproducibility and the internal validity and reliability of the research results. In this research the latter aspects were emphasized.

Potential interviewer biases become more important when the methods are less standardized. It cannot be excluded that interviewer biases and cognitive limitations

may have reduced the internal validity and reliability of the results. This problem was reduced, however, as all interviews with a few exceptions were conducted by two persons. Interview questions were also carefully planned beforehand. As a result, interviews could be reproduced to a certain extent within and across the research sites. The interview results were always written down afterwards and cross-checked by the interviewers. This procedure reduces potential biases but does clearly not eliminate them.

In addition, the feedback of observations and preliminary research results to managers in each site, during and after the field work, allowed for a certain elimination of potential biases.

ANALYSIS AND PRESENTATION OF THE RESEARCH DATA

In comparative case research, the way the research data is analyzed is of utmost importance. The analysis is a subjective process where the empirical data are abstracted, interpreted and conceptualized. In this section we will describe the way interpretations of data were made and how we have chosen to present the research data.

Interpretation of the research data

All interpretations of research data are based on some form of comparisons. In comparative case research like this study, the specification of the comparisons made is of interest in order to evaluate the results. Three major bases of comparisons can be distinguished: (cf. Normann, 1976)

- Comparisons against other cases or within the same case
- Comparisons against formal theories and earlier research situations
- Comparisons against idealized situations, norms and perceptions.

The primary comparisons used for interpretations in this study have been between the data in one research site and data gathered in the other research sites. This comparison reflects our purposes 3 and 4 above.

The second most important comparison has been among different types of data gathered within each research site.

The third and least important comparison has been between the data and earlier research. There are two reasons for the relatively lesser importance of these comparisons:

First, the lack of earlier research, as well as the multi-disciplinary nature of the research purpose, made it difficult to construct a coherent and relevant framework to be used as a primary basis for comparison.

The second reason relates to the research purpose. It is not the purpose of the study to try to verify existing theories. Instead, the purpose is explorative and descriptive, aiming at describing modes of managing intra-organizational relationships and at explaining observed differences. This is more similar to an attempt which aims at generating theory. Clearly, the borderline between verification and generation of theory is not sharp, but is largely dependent on the state of earlier research and the relevance of existing theories (cf. Glaser and Strauss, 1967). The "state of the art" determines the suitability and success of using a preconceived model or a more precise conceptual framework as the primary basis of comparison when interpreting the research data (cf. Jönsson, 1971; Stymne, 1972).

Although the framework was of less importance, relatively speaking, for interpretation purposes, this does not mean it was unimportant. Earlier research was used to create frameworks for the analysis of different dimensions of the headquarter-subsidiary relationships. During the research process an integration could gradually be achieved by letting research experience interact with more disparate and specialized frameworks.

Presentation of data

In the presentation of the research data in this report, some steps were taken to make it easier for the reader to get an overview and to follow up the analysis.

As the number of cases and number of comparisons are fairly large, the research data has not been presented in the form of separate cases. Instead, the data for the six firms have been split into different instruments, procedures and processes of coordination and control. Thereby, the purpose of describing the design and functioning of each instrument could be achieved, while still allowing for a comparative analysis of the six firms. The reader who is interested in the management of a specific instrument can also concentrate easily on a limited part of the report.

For analysis of the interaction between the various instruments, procedures and processes as well as to analyze the MNC as a whole, two of the investigated firms are described in detail in a separate chapter.

We have chosen to introduce definitions and to describe measurements in the context in which they have been used. This makes it easier for the reader to evaluate and assess their adequacy.

The empirical data is presented in two major forms - in tables and in the text. For illustration purposes sometimes we also present empirical data in the form of quotations, short descriptions and "mini-cases". Throughout the report care has been taken, however, to distinguish between descriptions and our own analysis. This has been done in order to facilitate independent assessment and analysis of the empirical data.

Earlier research results of relevance for the area of study are extensively discussed in Chapter 2. These results have been confined to Chapter 2, while the analysis and conclusions presented in the remaining chapters relate

only to this specific study if not stated otherwise. The separation has been done in order not to mix earlier research results with the conclusions that can be drawn from this study. The reader can easily compare and relate the analysis and conclusions with earlier research contributions by going back to Chapter 2.

THE STRUCTURE OF THE BOOK

The remaining part of this book contains seven chapters. The purpose and content of each chapter is briefly summarized below.

Chapter 2. The purpose of Chapter 2 is to describe the theoretical framework used in this research. The chapter reviews earlier research contributions and discusses their importance and usefulness for the area of study. Various instruments, procedures and processes for coordination and control are identified and classified. The classification is used to structure Chapters 4, 5 and 6 (the organizational, administrative and social systems for the management and headquarter-subsidary relationships in MNCs).

Chapter 3. The purpose of Chapter 3 is twofold: first, to function as a description of the environmental and strategic characteristics of each research site; second, to discuss how these characteristics may influence the requirements for coordination and control of foreign subsidiaries.

Chapter 4. The purpose of Chapter 4 is to describe and analyze the design and functioning of the organizational systems for coordination and control of the foreign subsidiaries. This chapter describes various organizational control instruments. The design and functioning of these are compared among the MNCs investigated. The influence of the characteristics of the MNCs (given in Chapter 3) on the design and functioning of the instruments is analyzed.

Chapter 5. The purpose and content of Chapter 5 are similar to those of Chapter 4 with the exception that instead of organizational systems, the administrative systems are described and analyzed.

Chapter 6. The purpose and content of Chapter 6 are similar to those of Chapter 4. Instead of organizational systems, the social systems for the management of the head-quarter-subsidiary relationships are described and analyzed.

Chapter 7. The purpose of Chapter 7 is twofold: first, to describe and analyze how the organizational, administrative and social systems are related to one another within one MNC; second, to discuss the relative importance of the environmental and strategic characteristics of the MNC for its influence on the different coordination and control systems. The latter purpose is fulfilled by analyzing differences in the mode of managing the relationships in two MNCs with similar characteristics. Two short examples of how the relationship is managed in each firm are given and analyzed.

Chapter 8. The purpose of Chapter 8 is to summarize the major research results and conclusions that can be drawn from the study. Some managerial implications of the results are also discussed.

2 A Framework for the Analysis of Headquarter—Subsidiary Relationships in Multi-national Corporations

The study of headquarter-subsubsidiary relationships in multinational companies (MNCs) constitutes a very challenging research task indeed. The object of study, the MNC, is a very complex organization. It tends to be of considerable size and to be highly differentiated in structure. It is by definition geographically dispersed, thereby facing diverse environmental conditions. As a result of these and other factors, we can expect that intra-organizational relationships, i.e. instruments and processes for coordination and control of foreign entities in MNCs, are very difficult to describe, analyze and not the least to understand. The headquarter-subsubsidiary relationships are furthermore not only static, structural arrangements but dynamic processes of decisions and exchanges.

The purpose of this chapter is to outline a framework for the analysis of headquarter-subsubsidiary relationships in MNCs. The words "outline" and "framework" are deliberately used, as there is still no coherent and organized body of empirical knowledge on the internal functioning of MNCs.

As a result, the framework developed herein is essentially eclectic in nature to permit conceptualization and delineation of the area of study. The explorative and descriptive nature of the research purpose and the emphasis on generation and analysis of empirical data makes the

"illumination" of the utilized framework important as well. Efforts have also been made to review most of the relevant literature in order to generate a framework which describes the "state of art" in the area of study.

THE ELEMENTS OF THE FRAMEWORK

In our study of intra-organizational relationships in MNCs, as defined herein, three partly overlapping currents of research have been utilized. Each current contributes to the understanding and conceptualization of the research data.

The first current is found in the *theory of complex organizations* and in particular what is denoted the "contingency theory" of organizations. The second current relates to *research on business strategy* and on the growth of the business firm and the strategic and organizational consequences of this growth. The third major current consists of *research on organizational control*.

The theory of complex organizations helps us to identify the forces behind the need for organizational control and coordination. Furthermore, it gives a deeper understanding of how the organizational context may influence the instruments for and processes of control and coordination of foreign subsidiaries in MNCs.

As will be shown, the theory of complex organizations has a major shortcoming for our purpose. It employs primarily a static perspective. Headquarter-subsidiary relationships are by contrast a dynamic in nature. The impact of organizational growth and corporate strategy can therefore be assumed to influence the relationships. Corporate strategy is also a part of the context of the relationships. A review of the major research efforts in the area of business policy can therefore be assumed to give further valuable insight into the need for and modes of control and coordination of the foreign subsidiaries.

While the first two research currents above specify the context of the headquarter-subsidiary relationships, the last one focuses on the specific instruments and processes used to manage the relationships. The research on organizational control integrates a diverse body of research which employs sociological, organizational and administrative perspectives.

A system perspective

A perspective of the MNCs as being open systems has been utilized for the description and analysis of the research data. For our purpose, the open system perspective has several advantages, which ought to be mentioned. Hall and Fagen (1968, p 81) define a system as a set of interrelated objects with attributes which have distinguishable functions or purposes. Relationships exist among the objects and among their attributes. The importance or triviality of any relationship depends on the problem at hand.

Systems in general exhibit the theoretical property of being subdivisible into subsystems or components. The structure and functioning of each component can be studied individually. This allows an approach where different aspects of the intra-organizational relationships can be studied separately by dividing the total system into subsystems. The subsystems are named herein *control systems* and/or *control instruments*.

Open systems exhibit certain specific properties. Open systems have outside their boundaries an environment with which they have a continuous exchange of some kind. The survival and continuation of the system depends on its ability to interrelate and to be compatible with its environment. Feedback from the environment is necessary to correct deviations from what the environment requires or desires (Katz and Kahn, 1978). According to Hall and Fagen (1968), subdivision into system and environment can

be done in many ways which are arbitrary and dependent on the context and area of study.

For our purpose this implies that the environment of each control system has to be analyzed in order to understand the structure and functioning of the subsystem itself. The environment consists of the relevant internal dimensions of the MNC, e.g. other subsystems, as well as relevant external dimensions outside the boundaries of the MNC. The external environment may influence the specific subsystem under study directly or indirectly through any other dimensions and subsystems within the boundaries of the firm. Environment becomes the context of the control and coordination instruments and processes employed by the MNC.

We can expect, for example, that the structure and functioning of the budget system in an MNC is influenced by the existence and use of other internal coordination and control instruments. External conditions, such as differences in the foreign subsidiaries operating environments, can also be expected to influence directly or indirectly the functioning of the budget system.

The characteristics of an open system imply that its ability to survive is dependent on its capacity to change its structure or to adjust the functioning of its present structure. Buckley (1968) states:

Persistence or continuity of an adaptive system may require, as a necessary condition, change in its structure, the degree of change being a complex function of the internal state of the system, the state of its relevant environment, and the nature of the interchange between the two.
(op. cit., p.493)

The concepts of system openness, environmental interfaces, and the divisions into subsystems imply that each "system" is open internally, as well as externally. Interchanges among system components may therefore result in changes of the components themselves with consequences for the system as a whole.

Open systems also exhibit the property of equifinality. Katz and Kahn (1978) states:

Open systems are also characterized by the principle of equifinality, which implies that a system can reach the same final state from differing initial conditions, by a variety of different means. (op. cit., p. 30)

Consequently, we can expect that the structure and functioning of a specific control system may vary among different MNCs. There may be no causal explanation for these differences among different MNCs.

For our purpose, the system perspective is important for several reasons. First as noted above, it enables us to view the MNC as a supra-system, and decompose it into subsystems, i.e. control systems. Each control system is, as noted above, conceived as a set of control instruments and processes. Each subsystem can then be described in terms of function, structure and process. Second, we can explicitly recognize that the control and coordination instruments and processes, being open systems, are continually adapting to changing environmental conditions and to changes in other control systems. The interface allows an attempt to identify the relevant conditions within, as well as outside, each MNC which may influence how the control systems operate, and to which they are contingently related. Relationships among different subsystems and their respective attributes can be taken into account conceptually. Third, the principle of equifinality implies that the state and dynamics of each control system are not given, but that observable differences in structure and function may exist.

The open system perspective has also some important negative properties. The most important is that a concept like the system theory can be applied to any phenomenon with any degree of specificity. Consequently, it can be considered as logically meaningless (von Bertalanffy, 1968).

The relevant environment and boundaries of open systems are difficult to determine, as they depend on the definition of the objects under study. The same holds for relationships including causal ones, if any, among the objects and their attributes. To specify and define the objects under study therefore assumes critical importance. Hall (1972) has commented on this problem as follows:

Few researchers have the tools or the ability to take into account all the various components that must be included in even a relatively simple open-systems model. The measurement of the various forms of inputs and the consequences of outputs has not been even moderately developed.
(op. cit., pp. 25-26)

In spite of these problems, the perspective is a useful conceptual tool for our purpose.

THE THEORY OF COMPLEX ORGANIZATIONS

The system perspective has been the foundation for the development of much of modern organization theory. Extensive research has been conducted to find the relevant conditions which may influence the structure, processes and performance of organizations. The following sections will discuss some of these conditions, or, as they often are called, *contextual variables or factors* (Pugh, et al., 1969).

The importance of formal organization structure

Headquarter-subsidiary relationships in MNCs have both structural characteristics and process dimensions. The relationship, both in a static and dynamic sense, is a part of, and related to the structure of, the organization as a whole. In focusing on the control and coordination aspects of the relationship, an understanding of the formal organizational structure of the MNC is necessary. The structure is a part of the control and coordination processes, and as such influences and is influenced by them.

A distinction can be made between organization structure and processes. Structure can be considered as the established pattern of relationships or behavior within the organization that are stable and change only slowly over time (March and Simon, 1958, pp. 169-170). In contrast, process is a dynamic concept focusing on system interaction and change.

The relatively stable "pattern of relationships" comprising the structure is frequently defined as sets of different elements or arrangements. The classical and bureaucratic theory of organization views structure as arrangements which define e.g. the division of labor, degree of specialization of different organizational units, the span of control, authority, responsibility, etc. The specification of authority, responsibilities, communication networks, etc. are typically depicted in the organization chart and often referred to as the formal organization.

The division of labor and task specialization in complex organizations require a differentiation of activities. Blau (1970) argues that vertical differentiation - i.e. the hierarchy and horizontal differentiation - i.e. departmentalization - define the formal organization structure. According to the traditional bureaucratic theory, the differentiation of the organization is the primary tool for solving the problems of coordination, control and communication. According to Hall (1972, p. 146), however, the greater the differentiation, the greater the potential for such problems.

The size and diversity of MNCs tend to lead to highly differentiated structures. This implies that the headquarter-subsidiary relationships within the firms cannot be analyzed without taking the formal structure into consideration.

Considerable research has been devoted to identifying the forces behind increased differentiation and its consequences for the needs for and modes of coordination and control. Empirical evidence has shown that complex organizations use multiple means to coordinate and control organizational activities. The most easily identifiable means are the bureaucratic ones, such as the hierarchy, specialization, centralization of decision making, standardization and formalization of rules and procedures (Child, 1972). The bureaucratic means of control and coordination in complex organizations tend to be formal in the sense of being depersonalized, relatively stable and routinized.

It has become evident, however, that complex organizations also use more informal and less tangible means to coordinate and control organizational activities.

Likert (1967) and Lawrence and Lorsch (1969) have noted the importance of individuals as integrators, as well as the importance of groups and committees as coordinative mechanisms. Socialization of organizational values and norms has been identified as a mechanism to ensure control and facilitate coordination (Etzioni, 1961). Hage (et al., 1971) noted the importance of horizontal and diagonal communication for coordination purposes.

As increasing organizational complexity tends to make coordination and control more difficult, other and more elaborate coordinative mechanisms than the formal structure are required. It has been shown that coordination and control are largely an information-processing problem. The ability of complex organizations to solve their coordination and control problems are therefore dependent on their ability to satisfy increased communication and information needs (March and Simon, 1958, p. 162).

To understand the nature of the headquarter-subsidary relationships in MNCs, the forces behind the development of formal structures have to be analyzed. We can expect that

these forces directly or indirectly influence the need for and modes of control and coordination. The following sections will review some of the most important of these forces and discuss their potential influence on formal organization structure and on the headquarter-subsidiary relationships in MNCs.

Determinants of structure and process in complex organizations

Extensive research has been conducted to ascertain the impact of different contextual factors on the organization structure, behavior and effectiveness.

Most of the research has consisted of comparative, cross-sectional studies treating one or more contextual factors as independent variables and organization structure and process as dependent variables. In the following sections some important research findings regarding specific contextual factors are reviewed. The impact of these factors on the potential need for and modes of coordination and control in MNCs are also discussed.

The impact of technology

Empirical research has shown that the type of technology has an impact upon organization structure and processes. Woodward (1965) studied 100 industrial firms in Great Britain. She and her colleagues classified technology, i.e. "the methods and processes of manufacture" (op. cit., p. 35), into categories ranging from job-order and small-batch manufacturing to mass- and process manufacturing. It was found that the type of technology affected the number of managerial levels, the spans of control of the chief executive and supervisors, and the ratios among different types of workers and between workers and staff. Woodward found that not only formal structure but also organizational processes were affected by the type of technology. Organizations engaged in mass-production manufacturing made greater use of

written communication, and managerial positions were more specialized than in firms using job-order or process manufacturing technology.

In subsequent studies Woodward (1973) argued that the major differences among firms with single-unit, mass-production, or process manufacturing could be found in the design of their control systems. She concluded that single-unit firms employ "personal", i.e. direct-contact, and "single" control systems, while mass-production firms tend to use "mechanical", i.e. formal and standardized, and "multiple" instruments of controls. Process technology firms tend to employ "mechanical" and "single" control systems.

For our purpose Woodward's scheme is of interest but has certain limitations, as it is focused on control of the production process. Its low degree of specificity makes it difficult to operationalize and apply to more complex settings.

Several other analysts have investigated the importance of technology as a determinant of organization structure (Lorsch, 1965; Perrow, 1967). Hage and Aiken (1969) found a positive relationship between technology intensity and social interaction in health and welfare organizations. Harvey (1968) observed that in firms with stable technologies, i.e. where fewer product changes occur, the number of specialized subunits and managerial levels tends to increase, as does the degree of formalization of communication channels. Khandwalla (1974) examined whether a positive correlation existed between the use of mass-production and process manufacturing technology, on the one hand, and vertical integration, decentralization of authority and the use of sophisticated control instruments, on the other, in 79 US manufacturing firms. He found that technology had an impact on these variables only among the firms in the sample, which also had relatively high performance.

Although there seems to be a relationship of the kind described above between the technology dimension of the firm and its structure and processes, the evidence is not conclusive. Several studies have shown no strong associations (Hickson, et al., 1969; Mohr, 1971; Child and Mansfield, 1972). The discrepancies stem partly from the wide variety of definitions and measures employed in the various studies. Woodward (1965) identified technology as being within the boundaries of the organization, while others view it as a part of the environment of the firm (Perrow, 1967). Hickson (et al., 1969) defined technology as the knowledge used in the work process and concentrated on workflow integration. Harvey (1968) defined it as "mechanisms or processes by which an organization turns out its products or science, i.e. operations technology" (op. cit., p. 247). Mohr (1971) concentrated in his definition on the manageability of the technology.

A second problem, more important for our purpose, is that many of the studies, like Woodward's, have investigated organizations which are either not similar at all to MNCs, or relatively small in size. Furthermore, such studies relate primarily to the control of the production function. Hickson (et al., 1969, p. 378) argued that operations technology is not related to wider administrative and hierarchical structures if the organization is large. Most of the studies in the area rest on the assumption that the technology is homogeneous throughout the organization, neglecting the fact that technology in complex organizations tends to be differentiated. We can conclude that when the focus is on higher organizational levels, like MNCs and their subsidiaries, and not on specific departments or production plants, the characteristics of the operations technology may not reflect very strongly the organizational structure or the need for and modes of coordination and control.

Although operations technology as a concept may be of little relevance if the focal organization is large and diversified, it can be a valuable conceptual tool in some other respects. If an open system perspective is applied, and technology is defined as also being part of the environment of the organization, further insights may be gained.

In a pioneering study of 20 manufacturing firms in England, Burns and Stalker (1961) found for example that the pattern of management practices was related to the *rate of change* of the technology and in the markets in some selected industries. Firms operating in industries with dynamic technology, e.g. electronics, seemed to be more effective if they adopted informal structures, and extensive vertical and lateral interaction. They named this type of pattern as being "organic". Effective firms operating under relatively stable technological conditions tended instead to adopt "mechanistic" patterns with well defined roles and duties, formal procedures, and strong hierarchy.

Consequently, if the definition of the concept is widened and focused on the degree of stability and the level of complexity of the major technologies employed by the MNC, it may be more relevant for our purpose. Directly or indirectly, the level of complexity in the major technologies may influence the need for control of the subsidiaries, the degree of formalization of the relationship and the magnitude of intra-organizational communication.

The core technology employed by the MNC may be highly complex. If so, it may increase subsidiary dependence on those units which control the intra-organizational diffusion of the technology. The diffusion process may consequently be used as a control instrument.

If the core technology is an important competitive tool, it may increase the need to control subsidiary use of the technology. The more diverse the core technologies are,

everything else being equal, the more difficult it will probably be to control their use. As a consequence, more elaborate control instruments probably have to be employed.

If the core technology or technologies employed by the MNC are unstable, there will be a greater degree of environmental uncertainty facing the firm. According to Burns and Stalker, this would require what they call "organic" managerial patterns.

Technology is a multidimensional concept, however, and we cannot expect it to be related in any simple manner to the structure or the internal relationships of the MNC. As noted above, together with mediating variables like competition and environmental uncertainty, the concept may be useful. We will further discuss the potential impact of technology in Chapter 3.

The impact of size

Many studies have supported the notion that the size of the organization is positively correlated with the degree of organizational complexity and formalization. Complexity is then defined in terms such as the number of hierarchical levels, and the degree of horizontal differentiation. Pugh, et al. (1969) argue that size is the major determinant of structure. They note:

Larger organizations tend to have more specialization, more standardization and more formalization than smaller organizations.
(op. cit., p. 98)

Pugh defined size as the number of employees and size of net assets. Others, although defining size differently, have found less clear relationships.

The number of subunits, functional diversity and degree of specialization tend to be relatively larger in large organizations (Blau and Shoenherr, 1971). It has been argued that increases in number of subunits and in specialization

may lead to differences in goals, and in the attention given to different goals. These differences can create problems in control and coordination of the subunits (March and Simon, 1958, p. 152).

This does not imply, however, that large organizations are more bureaucratic, e.g. in terms of having large administrative staff functions (Pondy, 1969). Instead, most studies confirm that the relative size of the administrative functions tends to decrease with increases in organizational size. Intra-organizational communication and control mechanisms then become more important (Katz and Kahn, 1978, p. 116). Child (1973) argues that size is the best predictor of decentralization, while less good for predicting formalization.

If size is a primary determinant of organization structure, it can be argued that relatively large MNCs would use more formal and standardized procedures to control and coordinate foreign subsidiaries. As noted above, no clear evidence exists, however, to support this hypothesis. Hall, et al. (1967) notes for example:

Increased organizational formalization is a means of controlling the behaviour of members in the organization by limiting individual discretion. At least one aspect of complexity, hierarchical differentiation, also is related to social control in that multiple organizational levels serve as a means of maintaining close supervision of subordinates. It seems rather clear, on the basis of this evidence that a large organization does not necessarily have to rely upon unpersonal, formalized control mechanisms ... An organization need not turn to formalization if other control mechanisms are present. (p. 112)

We can conclude that the size of the MNC alone cannot be expected to be useful in explaining the structure and functioning of the control systems, nor in explaining different processes of control and coordination. Instead, we can expect that several interrelated system design charac-

teristics mediate the impact of size on the various mechanisms employed by the MNC to manage the headquarter-subsidiary relationships.

Although the size of the organization may be of little predictive or explanatory value, it gives an indication of the needs and problems involved in the control and coordination of foreign subsidiaries. We can assume that larger MNCs, in terms of sales, assets, employees and any other measures, are faced with more complex control and coordination requirements than are comparatively smaller MNCs. It is likely, however, that the relative influence of this variable diminishes when it passes a certain critical level.

The impact of organizational interdependence

Several researchers have noted that the degree of interdependence within the organization may affect the needs and forms of control and coordination. In his classical study, Thompson (1967, p. 55) identified three forms of internal interdependence: pooled, sequential and reciprocal interdependence. Thompson defined interdependence in terms of flows of work, material and objects among organizational units.

Pooled interdependence is the simplest form and implies that major units are independent and have virtually no contact with another. Each unit renders, however, a discrete contribution to the organization as a whole.

Sequential interdependence implies that the output of one major unit is the input for another unit. The interdependence is direct, as the supplying unit must perform its task before the receiving unit can operate. Unless the receiver operates, the supplying unit cannot solve its output problems.

The third and most complicated form is *reciprocal interdependence*. This form implies that output of each unit

represents inputs for the other units, making each dependent of the others.

Thompson (op. cit.) argued that the three types of interdependence are, in the order indicated, increasingly difficult and costly to coordinate. Higher degrees of interdependence also tend to make intra-organizational conflicts more likely.

Each form of interdependence has an appropriate method for coordination. Drawing on the work of March and Simon (1958), Thompson (op. cit., p. 56) identified three forms of coordination. First, coordination through "standardization", involving the establishment of rules and routines. Second, "coordination by plan", involving schedules for the interdependent units. Third, "coordination by mutual adjustment", which involves transmission of information and feedback during the process of action.

The three forms of coordination are increasingly complicated. If the environment in which the organization operates is dynamic and uncertain, the more complicated forms are more appropriate. Similarly, more complicated forms of interdependence require more complicated forms of coordination.

According to Thompson, the purpose of the organization structure is to facilitate the exercise of the appropriate coordinating processes and minimize coordination costs. The structure influences thereby the efficiency of any method of coordination.

Van de Ven (et al., 1976) tested some of Thompson's propositions on a sample of 197 work units within an employment security agency. They classified coordination modes as unpersonal mode, personal mode and group mode. The first corresponds to "standardization" and the other two to "plans" and "mutual adjustment". The unpersonal mode is characterized by formalized and standardized policies and procedures, information, and communication systems.

The personal mode is characterized by individuals acting as integrators, while the group mode is characterized by group meetings and vertical and horizontal communication flows. Interdependence was defined as the extent to which unit personnel are dependent on one another to perform their tasks.

Van de Ven (op. cit.) hypothesized that more complex forms of interdependence would lead to only small increases in unpersonal coordination mechanisms but moderate or large increases in personal and group coordination mechanisms. They found instead that increased interdependence tended to lead to more use of all three forms of coordination mechanisms except for a slight decrease in the role of hierarchy and a large decrease in the use of plans.

For our purpose, their research is of interest but with the limitation that it concerns only the departmental level and does not investigate coordination and control processes across units and levels in the organization.

Lorsch and Allen (1973) are among the few who have investigated the impact of interdependence and diversity on intra-organizational relationships in multidivisional firms. They focused on the corporate-divisional relationships in a cross-sectional study of six multidivisional firms: two conglomerates and four vertically integrated paper companies. Their study is of importance for our purpose as the level of analysis is similar.

Lorsch and Allen, drawing on the work of Thompson (1967) and Lawrence and Lorsch (1969), noted that the conglomerates faced less complex forms of interdependence than did the vertically integrated firms. On the other hand, they had to deal with greater product diversity and higher environmental and financial uncertainty.

Interdependence was measured first as an index composed of required connections among major units divided by the total number of connections. The meaning of connections were not specifically defined. Second, interdependence was measured by asking corporate headquarter personnel how much time they spent with contacts in the industry environments of the divisions. It was hypothesized that the greater the "environmental overlap", the greater the integrative effort (op. cit., p. 144).

When comparing the conglomerates with the vertically integrated paper companies, Lorsch and Allen made several important observations. First, the vertically integrated firms had more complex organizational arrangements for managing corporate-divisional and interdivisional relationships. This category of firms had relatively larger headquarter units which performed a wider range of functions, and had permanent staff units and individuals integrating divisional operations. In contrast, in the conglomerates interdivisional relationships were managed on an ad hoc basis by specific managers or through the management hierarchy. According to Lorsch and Allen, these differences could be explained by the more difficult requirements of interdependence facing the vertically integrated firms (op. cit., pp. 150-152).

Second, it was observed that the conglomerates tended to devote less effort to integrating operations. Integrative effort was defined and measured as the amount of time corporate and divisional managers devoted to inter-unit relationships, i.e. what percentage of their working time was spent on contacts with other units (op. cit., pp. 21, 246). It was found that corporate-divisional integrative effort was less in the conglomerates than in the vertically integrated firms. Lorsch and Allen explained this as a consequence of different degrees of interdependence.

Lorsch and Allen also compared some aspects of corporate-divisional decision-making processes. They found that the two conglomerate firms tended to respond more rapidly to requests from their divisions than did the vertically integrated firms. Also, the conglomerates had more explicit and formal performance evaluation criteria emphasizing "financial and/or end results". The vertically integrated firms used more informal criteria, and emphasized "operating/intermediate" results, e.g. "expense control and market share" (op. cit., pp. 160-162).

In investigating the decision-making processes, no difference was found in the modes of resolving corporate-divisional conflicts and the overall perceived quality of upward and downward information flows (op. cit., p. 159).

Some other studies have also focused on the impact of interdependence upon organization structure and processes. Contrary to those mentioned above, these studies have focused on external interdependence, i.e. the organization's dependence on its environment.

Aiken and Hage (1968) investigated 16 social welfare and health organizations in the United States. They defined interdependence as the number of joint programs with other organizations. High interdependence was found to be positively correlated with the degree of internal communication, measured as the number of committees and committee meetings, and slightly positively correlated with decentralized decision making.

Other studies have confirmed that higher degrees of organizational interdependence tend to lead to more flexible and open structures, characterized by less formal and standardized procedures, greater decentralization of decision making, and decreased impersonality of relationships (Aldrich, 1979).

We can conclude that the degree of interdependence is likely to have a profound impact upon the management of headquarter-subsidiary relationships. The more precise nature of this impact will be further discussed in Chapter 3.

It is important to note, however, that interdependence can take many forms. Interdependence may exist within the organization and/or between the organization and its environment. Single definitions of interdependence, e.g. like those used by Thompson (1967), Aiken and Hage (1968), and Lorsch and Allen (1973), are not conclusive. As interdependence can take multiple forms, it is important for our purpose to specify them and to assess their influence on organization structure and processes in MNCs.

The influence of environment on organization structure, process, and effectiveness

It soon became apparent among organizational theorists that organizational structure and processes cannot be analyzed and understood by only looking at specific internal determinants. The environment in which the organization operates has to be taken into consideration. The studies by Burns and Stalker (1961), Woodward (1965) and Lawrence and Lorsch (1969) lead to a recognition that environmental conditions had a significant influence on organizational functioning. This approach has been named the contingency theory of organizations.

Lawrence and Lorsch (1969) made a cross-sectional comparative analysis of ten firms in three industries selected on the basis that they faced different environmental conditions. They analyzed how differences in the external environment of the firm influenced the internal environment. The characteristics of the external environment were classified as to the rate of environmental change, the certainty of information about the environmental conditions, and the

time span of feedback on the results of decisions. The external environment was classified into market, technical-economic, and scientific subenvironments.

The internal environment was classified as to the degree of differentiation and integration. Lawrence and Lorsch defined differentiation as "the difference in cognitive and emotional orientation among managers in different functional departments" (op. cit., pp. 9-11). Differentiation was measured in terms of the goal, time and interpersonal orientation of functional managers, and the formality of the organization structure. These measures incorporate partly the notions of specialization of labor, departmentalization and span of control.

Integration was defined as "the quality of the state of collaboration that exists among departments that are required to achieve unity of effort by the demands of the environment" (op. cit., p. 11). The degree of collaboration, i.e. integration among departments, was subjectively measured on an eight-point scale, ranging from "full unity of effort" to "relations are not required" (op. cit., p. 260).

Lawrence and Lorsch found that the more diverse and uncertain the environment of the organization, the greater need for differentiation among its functional subsystems, i.e. marketing, production and research. Furthermore, the greater the differentiation, the greater the need for and the difficulty of achieving integration. Specifically they noted:

... we have found that the state of differentiation in the effective organization was consistent with the diversity of the parts of the environment, while the state of integration achieved was consistent with the environmental demand for interdependence ... The more differentiated an organization, the more difficult it is to achieve integration. To overcome this problem, the effective organization has integrating devices consistent with the diversity of the

environment. The more diverse the environment, and the more differentiated the organization, the more elaborate the integrative devices.
(op. cit., p. 157)

The interpretations of Lawrence and Lorsch's findings gave a new perspective to organizational design issues. Specifically, there is no "best" way to organize, as it depends on the specific environmental conditions facing the firm. High performing firms tend to achieve a good fit between degree of differentiation, integrative effort, and environmental characteristics. Therefore, all ways of organizing are not equally effective (Galbraith, 1973, p. 2).

For our purpose, Lawrence and Lorsch's findings are important. By definition MNCs face diverse environmental conditions due to their geographical spread. Consequently, if effective, they ought also to have "elaborate integrative devices" to control and coordinate the foreign subsidiaries. Lawrence and Lorsch identified "elaborate integrative devices" as special organizational units, cross-functional teams and/or individuals whose primary activities are the integration of departments and the resolution of intra-organizational conflicts. According to Lawrence and Lorsch, firms operating in more certain and stable environments tend to have lower integration and less elaborate devices. The managerial hierarchy, direct personal contacts and formal "paper" systems are then the primary instruments for integration.

Likert (1967) has given further insight into the characteristics of organizational processes influenced by diverse and changing environments. According to Likert, increased competition, increasingly complex technologies and higher educational levels require, among other things, new organizational structures. The characteristics of these new structures are that communication and interaction processes are open and flow freely, decisions are decentralized and performance goals are high. Control processes are dispersed

throughout the organization. Self-control and problem solving is emphasized (op. cit., p. 197). Structurally, the organization is viewed as sets of groups which are linked by managers. Some of these are members of several groups. These managers are named "linking pins" and are the "integrators" of the organization.

The major shortcoming of Likert's study is its normative and prescriptive character, its failure to consider variations in "contingent" variables. The Lawrence and Lorsch study has also been criticized on several grounds. Hall (1968) argued that no causality has been established between type of environment and organization structure. The influence of other forms of environmental pressures, history and intra-industry differences were not taken into account. Tosi (et al., 1973) has criticized the study on the grounds that subjective measures of perceived environmental uncertainty are methodologically inadequate. To support the argument, they correlated subjective measures of perceived environmental uncertainty given by 102 managers with alternative, more objective measures, and found consistently negative relationships and no similarity among the measures.

A major problem with the contingency approach is the definition and measurement of the environment. If the organization is viewed as an open system, the "environment" can become undefinable and unlimited in scope. Dill (1958) introduced the concept of task environment which refers only to those environmental conditions which are relevant or potentially relevant for the organization. These conditions can be distinguished as being specific for the organization, e.g. customers and competitive environment contrary to general conditions, e.g. political, socio-economical and demographic factors.

Duncan (1972) segmented the environment into external or internal, i.e. within or outside the boundaries of the organization. The external environment was defined

... as those relevant physical and social factors outside the boundaries of the organization or specific decision unit that are taken directly into consideration in the decision-making behaviour of individuals in that system.
(p. 314)

The external environment was decomposed into a customer, competitor, socio-political and technological component. The environmental components were classified into two dimensions, simple versus complex and static versus dynamic. The impact of uncertainty in the environmental components was then measured subjectively in 22 decision units in three manufacturing and three research and development organizations.

Duncan found that individuals in the decision units experienced a great amount of uncertainty if faced with complex environments. His results showed, however, that the static-dynamic dimension of the environment was a more important contributor to perceived uncertainty than was complexity.

For our purpose, Duncan's results indicate that the degree of product and geographical diversity of the MNC can be expected to contribute to the environmental complexity and uncertainty it faces. Diversity alone does not give a complete picture, however, as the state of environmental change is a more important contributor to uncertainty. That implies that a single product company may face higher uncertainty than a multi-product company, if it operates in a highly dynamic environment.

Duncan's ambitious attempt is not without problem. In particular, it highlights the problem we encounter when trying to define the relevant environment. This problem is further aggravated when we move towards larger and more complex systems. It is much more difficult for example to define the relevant environment for an organization as a whole than for a department, group or individual. In fact, we still know very little about the relevant environmental

dimensions and the variation of these in different settings. The environment of complex organizations is not easily classified in terms of uni-dimensional categories.

The measurement problem is equally difficult as we lack adequate measurement instruments. Tosi (et al., 1973) and Downey (et al., 1975) have critically reviewed both Lawrence and Lorsch's and Duncan's works, noting that perceived uncertainty may be different from objective uncertainty in the environment. When trying to validate Lawrence and Lorsch's and Duncan's uncertainty measures, they found either no statistically significant correlations or only very weak ones. It may therefore often be better to analyze the relevant task environment and to subjectively assess the degree of environmental uncertainty. Such an assessment can complement attempts to measure uncertainty more precisely.

Coordination and control under uncertainty

Most empirical research indicates that effective organizations facing environmental uncertainty, created by heterogeneous and unstable environments, adopt more flexible and adaptive organizational structures. They tend to rely less on hierarchical control, rules and procedures. Instead, they become more decentralized and less formal and standardized (Burns and Stalker, 1961; Lawrence and Lorsch, 1969; Hage, et al., 1971; Galbraith, 1973 and Van de Ven, et al., 1976).

Environmental uncertainty has been hypothesized to influence intra-organizational distribution of power. Thompson (1967) argues that those organizational functions or subunits which cope with the most critical uncertainties facing the organization tend to get the most power. The empirical evidence of a link between the ability to cope with environmental uncertainty and intra-organizational power is not conclusive, however. Other hypotheses have

been advanced, stating that power is linked to those who are most able to contribute to and maintain the flow of critical resources to the organization. Power may also become institutionalized by the establishment of permanent structures and policies (Pfeffer and Salancik, 1978, pp. 233-234).

Task uncertainty is often defined as including both internal and external environmental uncertainty. Galbraith (1973) defines it: "... as the difference between the amount of information required to perform the task and the amount of information already possessed by the organization" (op. cit., p. 5). Van de Ven (1976, p. 324) defines it as: "... the difficulty and variability of the work undertaken by an organizational unit". Implicit in these definitions, as well as in Lawrence and Lorsch's definition above, are that the interdependence is an important contributor to uncertainty.

Galbraith argues that increased uncertainty makes traditional information processing and control techniques inadequate, as the organization becomes overloaded with exceptional cases. Plans, rules and procedures become obsolete and adjustments have to be made on the spot, forcing managers to focus on operating matters. He states:

... the greater the uncertainty, the greater the amount of information that must be processed among decision makers during task execution in order to achieve a given level of performance.
(op. cit., p. 4)

According to Galbraith, the primary methods of coordination are rules, programs and procedures. These methods become inappropriate if the organization faces changing situations. In a new situation for which there is no preplanned response, the hierarchy is the second major complementary coordination mechanism, since the hierarchy allows the new situation to be referred upwards. The third major method of coordinating subunits is to specify targets

and goals to be achieved. The employees are then assumed to select responses which are appropriate to the goals.

Galbraith notes:

The ability of an organization to successfully coordinate its activities by goal setting, hierarchy and rules depends on the combination of the frequency of exceptions and the capacity of the hierarchy to handle them. As task uncertainty increases, the number of exceptions increases until the hierarchy is overloaded. Then the organization must employ new design strategies.
(op. cit., pp. 14-15)

Galbraith devises two major design strategies: first, to reduce the need for information processing through the creation of slack resources and/or self-contained tasks; alternatively, to increase the capacity to process information through vertical information systems.

To reduce the need for information processing involves the creation of lateral relations, decentralization of decision making, creation of informal communication patterns beyond the formal hierarchy and to design managerial roles, reward systems and conflict resolution practices in such a way that they facilitate intra-organizational communication and joint decision making.

Galbraith stresses the importance of integrative devices for coordinating and to a certain extent formalizing lateral relations. The simplest and least costly form is to utilize direct contact between managers. The most complex and costly form involves permanent teams and roles, and the evolution of matrix structures with dual authority relationships (op. cit., p. 48).

The second design strategy, i.e. the investment in vertical information systems, aims at reducing the number of exceptions which have to be referred upwards in the hierarchy. The structural characteristics of the information system include the frequency and the degree of formalization and standardization of the information flows,

the scope of the data base, and the capacity of the decision mechanism to process information (Galbraith, 1973, p. 31). The overall objective is to increase capacity to use information during task execution without creating excessive costs and information overload.

The implication of the information processing concept of organization design is that organizational effectiveness is related to the degree of fit between information processing requirements and the information processing capacity of the organization.

Organizations facing high information processing requirements, e.g. because of interdependence and task uncertainty, tend to utilize more complex coordination and control mechanisms, as these are better able to handle inter-unit uncertainty. The specific choice of these mechanisms depends on the particular processing requirements and the cost of the various mechanisms. More complex and elaborate mechanisms are also more costly. Rational organizations would utilize more simple mechanisms to the fullest extent possible (Tushman and Nadler, 1978).

Galbraith (1977) has also noted, drawing on the contingency theory of organizations, that firms in order to be effective have to achieve a fit between organization design and the requirements imposed by the degree of task diversity and uncertainty. Contrary to the work of Lawrence and Lorsch (1969), Galbraith argues that for effectiveness, congruence is required, not only between structure and environment, but also among various organizational processes and subsystems.

Subsystems include selection, transfer and development of managers, reward systems, information and decision processes, planning and control systems, design of integrative devices and performance evaluation systems.

Although the design of the total configuration is not related in a deterministic fashion to contingent variables, a change in one design variable may require changes in other variables in order to maintain internal consistency.

The extended version of the contingency theory can be logically deduced from open system theory (cf. Christenson, 1973; Hedlund, 1977; Leksell, 1979). Empirical evidence about its correctness, however, is not yet conclusive. The lack of evidence is due to several conceptual and methodological problems. First, the relevant contingent and design variables have not yet been fully identified or properly defined. Second, the number of potentially interacting variables comprising the total configuration creates measurement problems. Third, the hypothesized causal relationship between achieved congruence and organizational effectiveness is also hard to establish as to both existence and direction. Given any causality, the measurement of effectiveness is a problem in itself (cf. Steers, 1975).

For our specific purpose, the information processing view is important for several reasons. As uncertainty is partly a function of product and geographical diversity, we can assume that MNCs in general will rely on elaborate and complex mechanisms for coordination and control of their foreign subsidiaries.

Secondly, the modes of managing headquarter-subsidary relationships are not deterministic. Rather, they are a function of choice, interactions among different control systems and the specific environmental conditions, and requirements which impinge on the organizations.

As was noted above, the potential external environmental influence on the MNC is in principle unlimited. As organizational theorists have seldom specified and operationalized the specific environmental factors which may constrain and influence organizations, little is known about specific and direct environmental impact. Due to the

low degree of variable specification, the managerial value of earlier research is also limited. As a consequence, it has been considered most fruitful here to try to empirically identify, conceptualize and describe the nature of those variables which seem to be the most relevant. Variables which have been identified in this research and their potential influence on headquarter-subsidary relationships will be detailed in the next chapter when discussing the MNCs investigated and the context of the headquarter-subsidary relationships.

CORPORATE STRATEGY AND ORGANIZATIONAL GROWTH

A large part of the research on contextual variables, as reviewed above, has treated these as causal determinants of structural characteristics. Environmental conditions, size, technology, interdependence, etc have been seen as static factors forcing the organization to adopt certain structures and processes, as well as restraining ability to achieve organizational change. Many of these studies can therefore be criticized both for being static and for neglecting the role and discretion of the organization itself in varying, selecting, and influencing its own structure and the environment in which it operates.

In a now classical study, Chandler (1962) investigated from a historical perspective the strategy followed by some of the largest firms in the United States. Chandler noted among several things that the organization structure tended to be a consequence of the growth strategy employed by the firms. The growth strategies themselves followed a pattern of moving first from pure volume expansion to a geographic expansion of functions within the same industry. Next, the firms embarked upon a strategy of vertical integration into related product areas. When the primary markets of the firm started to decline, the growth strategy tended to lead to diversification into completely new product lines and industries.

According to Chandler, the different growth patterns were followed by structural change. Growth led to administrative problems of coordination and control. Volume expansion and vertical integration created pressure for increased specialization and rationalization and led to the development of functional organization structures. When product diversity increased, problems of performance evaluation, division of responsibility, and resource allocation between different product lines emerged. To solve these administrative problems, the firms adopted multi-divisional structures.

Chandler also noted that the organizations tended to resist structural change. Only when the administrative problems caused by growth started to create inefficiencies and impinge on performance did structural changes occur.

Chandler's study has stimulated considerably subsequent research that refined and empirically tested his hypothesis. These studies have given further insight into how firms adapt to increased complexity caused by product and geographic diversification.

Scott (1971) elaborated Chandler's work and argued for stage-wise sequential development of new organization structures as a response to increased diversity and complexity. According to Scott, organizations develop from (1) an entrepreneurial stage to (2) a single product or functionally organized stage to (3) a divisionalized stage. Increased product diversity leads not only to divisionalization, but also among other things to changes in the control and reward systems.

Empirical research has subsequently showed that not all firms adopt a multi-divisional structure when product diversification increases. Only when competition also increases does this structure tend to develop as a response to the potential or actual threat of a decline in performance (for a summary see Scott, 1973). Under these condi-

tions the multi-divisional structure seems to produce relatively better results, although the evidence in this respect is not conclusive (Rumelt, 1974, see also Galbraith and Nathanson, 1978 for a review).

Chandler's work also stimulated several organization sociologists. Thompson (1967) argued that internal interdependence is the major determinant of structure, since rational organizations tend to minimize coordination costs by first grouping all reciprocally interdependent units in common, i.e. the form of interdependence that is most difficult to coordinate. Thereafter, subunits facing simpler forms of interdependence are grouped together. By grouping the most interdependent tasks and product lines into divisions, coordination is facilitated.

Child (1972) introduced the concept of strategic choice, arguing that variation in formal structure is influenced by the strategic decisions made by top management. Among organizational theorists this concept moderated the view that environmental and contextual variables directly impinge on organization structure and processes. Instead, the influence of these variables is mediated, depending on the attention given to them by organization members and in particular by the leadership (Aldrich, 1979, p. 137 and Stymne, 1979, p. 44).

The concept of strategic choice draws the attention to the importance and influence of leadership. The perceptions, values and attitudes of the dominant management team and their power struggles have been argued to affect the structure and processes of the organization and clearly also its strategy (Hall, 1972; Hedlund, 1977; Miles and Snow, 1978).

The introduction of "choice" as an explanatory variable also resulted in the recognition among organization theorists that organizations to a certain extent can choose the external environments in which they operate. Further-

more, organizations may influence and shape their external environments in various ways (see among others Pfeffer and Salancik, 1978).

The development of multi-divisional structures has been the most common structural change which has accompanied increased diversity at least among US firms. Chandler (1962) showed that firms choose different bases as primary differentiating factors when forming divisions, depending on their specific needs. The major differentiating factors have been product lines, geographical areas, markets served and functions.

Allen (1978) has developed an empirically based taxonomy of divisionalized firms, using a longitudinal research approach. He noted that divisionalized firms are far from a uniform or homogeneous type of organization. Instead, divisionalized firms differ in terms of several variables, e.g. degree of divisional self-containment, extent to which corporate headquarters perform functions or services for the divisions, extent of interdivisional interdependence, and complexity of coordinative devices.

Divisionalization as the structural response to increased product diversification can also be explained by the need to clarify managerial responsibility for different product/market activities. With diversification it becomes more difficult for corporate management to keep informed about diverse market conditions and to manage often very different business activities. Through divisionalization it is possible to separate the operating responsibility of divisional management from the strategic coordination of different divisional activities by corporate management.

The separation of responsibility and the clustering of interdependent tasks into more or less autonomous divisions largely explains the changes in administrative systems and process that have become shown to accompany an increase in product diversification.

In spite of this, little is known about the more precise nature of decision processes in large diversified multi-business firms. With some noteworthy exceptions (e.g. Spångberg, forthcoming 1981), most researchers in the area have confined themselves to the study of specific strategic decisions and not decision processes in general.

It is therefore difficult from the studies to make any generalization about management processes in highly diversified firms. In view of this shortcoming, the general finding of the studies is that strategic decisions in diversified firms are frequently the result of a series of decisions made over time by individuals located at various organizational levels. Corporate management does not often involve itself, nor does it actively intervene in the process. Instead, corporate management uses different organizational, administrative and social coordination and control instruments to influence the decision processes. The design and use of these instruments create an internal organizational "context" which guides the decision making and behavior of lower level managers (cf. Bower, 1970).

Some recent studies on decision processes in highly diversified firms with unrelated product portfolios show that divisional management is given great discretion and autonomy to decide about divisional affairs. Corporate management's intervention and involvement in divisional operations are dependent on how much confidence the corporate level has in divisional management (Östman, 1977, and Spångberg, *op. cit.*).

It is likely that several factors contribute to the observed impact of diversification on management processes. One plausible explanation is that the degree of interdependence among divisions is low in highly diversified firms. As a consequence, more autonomy can be given divisional management, and less coordinative functions have to be performed by corporate management.

A second explanation relates to the lack of information. With increased diversification follow difficulties for corporate management to keep informed about the market and competitive conditions facing each division. Involvement in divisional affairs is hindered by a lack of knowledge. As a consequence, it also becomes increasingly difficult to evaluate the performance of the divisions by intermediate and operating measures. It is likely that more emphasis is given to evaluation criteria which can be used in a standardized fashion. Financial end-results like net profit and return on investment are typical criteria of this kind. This may explain many of Lorsch and Allen's (1973) results described above.

Growth and diversification can be achieved through either mergers and acquisitions or internal expansion or a combination of both (cf. Berg, 1965). Each pattern can involve the inclusion of related or unrelated business activities in the corporate product portfolio.

Although this is a very rough classification of diversification strategies, it has a certain relevance. If the firm diversifies through acquisitions instead of expanding internally, everything else being equal, acquired entities may be left alone without much corporate involvement. Acquired entities are often going concerns with their own technical, financial and human resources. It is then not always necessary to integrate them into a broader corporate context. Corporate coordination and control activities can be kept to a minimum, and the acquired entities can be left to develop their own business activities, organization structure, and control systems.

The extent to which acquired entities are integrated and required to conform to and adopt corporate systems for coordination and control seems to depend primarily on two factors: first, the control strategy of the acquiring firm and the corporate policy regarding the integration of newly acquired entities (Spångberg and Lindgren, 1980); second,

the economic advantages or potential synergy (Ansoff, 1965) that can be realized through an integration. Synergy is more easy to realize if the product program of the acquired entity is related to the existing corporate product portfolio.

Consequently, to understand the potential effect of diversification strategy on the headquarter-subsidary relationships in MNCs, the two factors have to be taken into consideration.

Berg (1969 and 1971) has shed some further light on this issue. He observed that the role of the corporate office differs in firms which have pursued an unrelated diversification compared to those with related diversification. According to Berg, firms which have had an unrelated diversification pattern have considerably fewer functions represented at the corporate level compared to firms which had followed a related diversification strategy. In Berg's sample the first group of firms had more and larger corporate functions for R&D, marketing and manufacturing.

Firms with a related product portfolio had on the average more than three times as many people employed at the corporate level - this irrespective of any differences in size measured as total sales revenues.

According to Berg (op. cit.), many highly diversified firms are explicitly trying not to add any extra corporate functions, leaving the divisions to develop their own staffs. Rather, the development of independent and professional divisional managers is emphasized by corporate management. The existence of fewer and smaller corporate staff functions is also positively correlated with divisional autonomy.

It is likely that Berg's observation can also be explained by a low degree of interdependence among divisions. This in turn is largely explained by the low degree of product relatedness, which characterizes conglomerate firms.

It can be argued that there are no particular operative advantages in having large corporate staff functions under these circumstances.

Organization structures in MNCs

Drawing on Chandler's research, Stopford and Wells (1972) studied how US MNCs developed new organization structures as they expanded internationally and formed new growth strategies. In total, the authors investigated the structural characteristics of 170 MNCs, selected among the 500 largest manufacturing enterprises in the United States.

Stopford and Wells observed, similarly to Chandler (1962) and Scott (1971) that most of the investigated firms in the face of increased sales and product diversity developed new structures in a stage-wise pattern. The first major stage was a structure with autonomous subsidiaries with high discretion in decision making reporting directly to corporate top management. The second stage involved the formation of an international division. With increased international sales and product diversity, the MNC faces coordination problems, and pressures arise to coordinate subsidiary activities and to rationalize worldwide production. According to Stopford and Wells, firms developed global structures as a response. This structure involves the creation of independent divisions using product line or geographical area as the primary differentiating variable. The autonomy of the foreign subsidiaries decreases, and reporting relationships are formed with the divisions. The development of this structure occurs when top managers perceive a need to adopt a worldwide perspective on the operations of the firm.

The adoption of global product or area divisions is accompanied by more comprehensive planning and control mechanisms, and an internationalization of managers in terms of their cognitive orientations.

Stopford and Wells also found that the reorganization into worldwide product divisions was positively correlated with product diversity and interdependence, while firms adopting area divisions were characterized by low product diversity, mature product lines and/or low product interdependence.

Reorganization into a global structure also involves problems, as it is based on the principle of unity of command. Communication among divisions may be extensive, and coordination of the activities of foreign subsidiaries in different divisions becomes difficult (Stopford and Wells, *op. cit.*, p. 27).

As a response, some of the investigated firms adopted matrix structures with shared responsibilities and dual or multiple reporting relationships. Some firms introduced corporate staff groups or management committees, *i.e.* integrators whose responsibilities cut across divisional responsibility. At the time of the research, Stopford and Wells were not able to describe precisely the nature of the matrix or "mixed" structure, as they called it.

Stopford and Wells observed, similarly to Chandler, that the development of new formal structures tends to be resisted by the organization. During a period of lag before a reorganization, change in the informal structure is likely. The magnitude of the lag is a function of performance, management resistance and the growth in foreign sales and product diversity.

Other major studies have given further insight into the organizational characteristics of European MNCs. Schollhammer (1971) compared the organizations of twelve US and European MNCs in the chemical and pharmaceutical industries. Schollhammer did not find conclusive evidence that European firms gradually reorganized in the pattern suggested by Stopford and Wells in face of increased international activities. It was observed that European firms

avored functional organizations with a few key headquarter executives who fairly loosely control and coordinate worldwide operations. This was matched by the appointment of senior executives with long company experience to head the foreign subsidiaries.

Franko (1976) investigated continental European MNCs, their spread and organizational characteristics. The most common organizational form used by these MNCs was the "mother-daughter" structure. According to Franko and similarly to Schollhammer's findings, this form is characterized by a functional organization structure with the foreign subsidiary presidents reporting directly to the president of the parent company.

The form was equally common in European MNCs with many or with few foreign manufacturing subsidiaries. Of the 70 firms investigated by Franko, 25 had the mother-daughter structure, and 21 of these had manufacturing operations in more than seven countries (op. cit., p. 188).

This differs considerably from the US firms investigated by Stopford and Wells (op. cit.). None of these had a president-to-president reporting relationship beyond ten foreign subsidiaries, and all favored a fully divisionalized structure before they established their fifth foreign manufacturing entity.

The wider spans of control in the mother-daughter structure were also accompanied by different headquarter-subsidiary relationships than in US MNCs. The European MNCs with mother-daughter structures had more informal and personalized relationships, few written rules and procedures, and little standardization of financial control systems.

Franko (1976) observed that firms with mother-daughter structures employed a higher proportion of home-country expatriates as subsidiary presidents than did firms with

alternative structures. Control processes were largely personalized and subsidiary presidents were trusted by headquarters, where they had usually spent several years absorbing the values and culture of the parent company.

Franko (1976) notes:

Consequently, foreign subsidiary presidents were often allowed greater autonomy - but within precise yet unwritten constraints ... As long as constraints were respected and dividend checks appeared when anticipated, the center rarely interfered with - or even asked for much information from - foreign subsidiaries. When information was transferred, it often travelled on lines established by friendship and acquaintance, and in a manner showing little concern for the principle of unity of command. (op. cit., p. 192)

According to Franko, the primary reason for the mother-daughter structure and its persistence among European in contrast with US MNCs was the existence of barriers to trade in Europe and the low degree of competitive pressures. The separation of markets ruled out global product specialization and intra-organizational interdependence.

In support of the "stage theory" of structural change, Franko noted that as competition increased, the European firms abandoned the mother-daughter structure and adopted multi-divisional structures, with worldwide product or area divisions, or matrix organizations. Contrary to US MNCs, the European firms moved directly from a functional mother-daughter structure to a divisionalized global structure without the transitional stage of an international division (op. cit., pp. 200-204).

Franko also observed that many European MNCs moved towards an adoption of matrix structures involving dual or multiple relationships and responsibilities. The following sections will discuss the forces behind the development of multinational matrix organizations and the influence of this structure on headquarter-subsidiary relationships.

The evolution of multinational matrix structures

Recently a growing body of research has focused on the forces behind the development of multinational matrix organizations and the managerial characteristics of this structure.

Stopford and Wells (1972) noted:

Firms that have developed a grid structure have abandoned the notion that concentration on one variable should dominate the organization. They have designed structures in which two variables - differences in products and in areas - are of roughly equal importance; both are considered relatively more important than functional differences. Managers of products share responsibility with managers of areas. By assigning shared responsibilities, these firms are attempting to integrate their diverse activities more effectively than is possible when responsibility is assigned by traditional means.
(op. cit., pp. 87-88)

Davies and Lawrence (1977) define a matrix as any organization that employs a multiple command structure with related support mechanisms and associated organization culture and behavior pattern (op. cit., p. 3).

Matrix organizations are generally recognized as possible organizational forms when a dual or multiple focus has to be established - in other words, when there is a need to focus on more than one primary differentiating variable - function, product line, area or market and customer segments. Matrix organizations therefore exist in several different forms (Sayles, 1976).

Davies and Lawrence (1977) argued that three environmental conditions are conducive to matrix organizations. First, there is outside pressure for a dual focus. Tasks require that at least two constraints be solved simultaneously. Second, there are pressures for high information processing capacity caused by environmental uncertainty, product diversity and interdependence. Third, the organizations are faced with pressures for shared resources, e.g.

to achieve high economies of scale and at the same time utilize scarce human resources (op. cit., pp. 11-18).

According to Davies (1976), matrix organizations in MNCs have often evolved when there is a simultaneous need to coordinate global product responsibility within any geographic area or along critical functional tasks.

Recently, the specific pressures for a dual organizational focus have been further identified. A matrix organization may be required when the MNC is confronted with simultaneously conflicting pressures to be sensitive and adaptive to host country conditions, as well as to rationalize production and implement competitive strategies on a global basis (Doz, 1979; Leksell, 1979). These pressures may or may not lead to the development of formal multinational matrix organizations, depending on among other things how headquarter-subsidiary relationships are managed (Leksell, 1979).

Figure 2:1 depicts schematically the major structural alternatives of a product or area emphasis in the MNC, and how differences in emphasis relate to organization structures with a dual focus (Leksell, op. cit.).

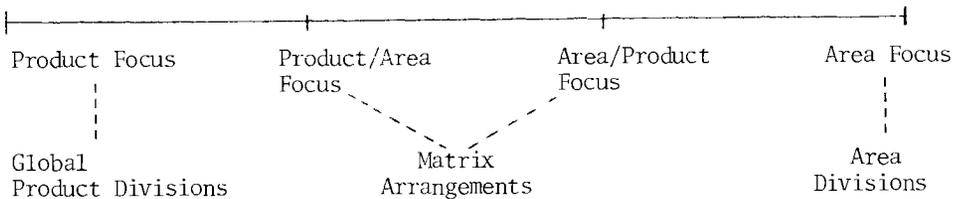


Figure 2:1. Structural alternatives of a product and area focus in MNCs

Doz (1979) made intensive case studies of three MNCs, operating in the telecommunication and electro-mechanical industries - LM Ericsson of Sweden, Brown Boveri of Switzerland, and General Telephone and Electronics of the United States. All three firms are faced with high degree of host government influence on their operations, which requires them to be responsive to local demands, e.g. to start local manufacturing and R&D activities. At the same time, due to competitive pressures, they face pressures to rationalize and coordinate critical activities globally, e.g. to centralize manufacturing and R&D in order to achieve economies of scale (cf. also Chapter 3).

Doz found that the three MNCs employed different means to achieve a dual focus in their organizations with an appropriate balance between global product coordination and high responsiveness to local conditions.

The particular problems involved in managing matrix organizations have been described by several authors (Davies and Lawrence, 1977; Janger, 1979). Prahalad (1977) investigated strategic decision making processes in a diversified MNC having a matrix structure with area, product and functional dimensions, each considered to be equally important. According to Prahalad, strategic decisions made by top-management were largely influenced by their judgment and confidence in the executive proposing a particular alternative (cf. Östman, 1977; Spångberg, 1981). Shifts in strategy were accomplished by changing the relative intra-organizational power of some dimensions of the matrix. Global coordination of product lines, for example, was achieved by shifting relative power from the functional to the product dimensions of the matrix. This was accomplished by moving key individuals and by changing the pattern of information flows in the matrix.

Recently some other scholars have investigated what conditions are conducive to dual orientations in MNCs and how formal and informal matrix organizations evolve. Bartlett (1979) made intensive case studies of nine MNCs in the food processing and pharmaceutical industries and noted that changes in organizational orientation and culture could be achieved gradually and not only through reorganizations of the formal structure.

Bartlett found that the food processing companies had retained their international division structure in spite of considerable international growth and increased complexity. The explanation given was that the nature of the business was such that product development, manufacturing and marketing were all done at the national level for cultural and economic reasons. As each subsidiary operated independently, no particular coordination and control problems arose which required structural changes.

The five companies in the pharmaceutical industry exhibited different patterns. These companies faced strong requirements to adapt and to be responsive to host country demands. Simultaneously, they needed to be globally effective and to coordinate their R&D and manufacturing activities, which involved centralized production facilities for certain ingredients. Contrary to the food processing industry, the pharmaceutical industry was also less mature and operated in a highly uncertain environment because of host government controls and regulations.

According to Bartlett, the pharmaceutical companies were faced with the necessity to develop complex global organizations of the type described above. Instead of developing new structures through a series of reorganizations, as proposed by Stopford and Wells among others, new managerial modes evolved gradually over time without any change of formal structure.

New organizational cultures emerged with coalitions between product and area managers. Decision processes became more cooperative and intra-organizational communication flows became more informal, flowing in multiple channels.

As a result, while still retaining their formal structure with an international division, the MNCs gradually developed flexible multidimensional decision processes with the same properties and results as a formalized matrix structure (cf. Leksell, 1979).

To conclude, the evolution of matrix organizations requires a break-down of bureaucratic behavior and assumptions. It tends to involve the creation of new behavioral patterns and processes among organizational members which emphasize collaboration, resource sharing and interpersonal skills. It has been argued that in order to manage the matrix mode, support systems have to be developed (Kolodny, 1976; Davies and Lawrence, 1977).

This development leads to dual evaluation and reward systems and dual accounting and control systems. An important characteristic of a dual focus is the balance of power. As the matrix mode implies resource sharing and dual responsibility, the power balance between e.g. a product orientation and an area orientation has to be monitored and adjusted if the desired behavior is to result.

Consequently, pressures for a dual organizational focus tend to be accompanied by more complex relationships between headquarters and the foreign subsidiaries. We can expect that MNCs which are faced with these pressures will employ elaborate instruments for managing the intra-organizational relationships. We will return to this in subsequent chapters.

THE THEORY OF ORGANIZATIONAL CONTROL

All formal organizations are concerned with how to channel human efforts towards the attainment of organizational objectives. The organization employs a set of instruments and processes designed to influence the behavior and performance of organizational members, groups, subunits and/or the organization as a whole towards goal congruence and goal achievement. The sets of instruments and processes are designated herein as either control systems or control instruments.

The previous sections have primarily been concerned with identifying the relevant structural and environmental variables which constitute the context of control systems. The purpose of this section is to discuss more specifically the elements of control systems.

The literature on control systems is highly confusing as to the meaning of the concept and the approaches taken to study it. The confusion stems largely from the fact that the theorists having employed very different perspectives when defining the concept. Because of the many different definitions and perspectives, no agreement exists on what constitutes the boundaries of the concept.

It has not been possible to review all the extensive literature that exists in the area. Instead, an effort has been made to try to select and discuss the most representative theories and "schools of thought". The selection has been made taking the relevance, for our purpose, of the various "schools" explicitly into consideration.

The concept of control

We can identify three broad perspectives in the literature on organizational control: a psychological/sociological, an organizational and a management perspective. The differences in perspective become particularly evident from

looking at the instruments of control proposed by the respective theorists. Before turning to the instruments, some common definitions are worth mentioning.

Weber (1947) and Fayol (1949) view controls as attempts to verify and correct actions which differ from established plans and directions. Arrow (1964) defines control as the selection of rules to maximize the organization's objective function. Tannenbaum (1968) adopts a broader definition, seeing control as interpersonal activities aiming at influencing behavior and actions. Etzioni (1961) equates control with the strive to secure compliance from subordinates through different means of coordinating specialized and interdependent parts of an organization.

Argyris (1964) and Likert (1967) emphasize self-control, i.e. motivation to perform the job without regard to reward systems, while Lawler (1973, 1976) stresses the importance of specifying desired behavior and to support this with reward and punishment systems. Anthony (1965) and Anthony & Dearden (1976) employ, similarly to Fayol, a definition which views control as a structure and as processes which ensure that resources are obtained and used effectively and efficiently to accomplish the objectives of the organization.

For our purpose, all these definitions are equally valid. Explicitly or implicitly, the definitions of control are focused on goal achievement and goal congruence. The major differences can be found in the various control instruments implicitly emphasized in the definitions.

Instruments of control

The literature gives many examples of instruments of control. The differences in "schools of thought" are particularly visible when it comes to the identification of control instruments.

According to sociologists and organizational theorists like Weber (1947), Blau and Scott (1962) and Thompson (1967), control is accomplished through structural mechanisms and the power of the dominant management coalition. Rules, standardized procedures, hierarchy of authority and specialization are viewed as important control instruments.

Those adopting a psychological perspective like Likert (1967), Argyris (1964), Tannenbaum (1968) and Lawler (1973, 1976) emphasize motivation, goal setting procedures, measurement, feedback and rewards as primary instruments.

The management or administrative school exemplified by Fayol (1947), Anthony (1965), and Anthony and Dearden (1976) is primarily concerned with plans, budgets and instructions as the bases of control. Performance measurement, evaluation comparison and feedback are regarded as principal elements of the system.

It is evident that the literature lacks a common conceptual framework and definition of control and control instruments. Divergences also exist regarding the level of analysis, e.g. individual, group, subunit, etc and the extent to which empirical research has been conducted.

Some attempts have been made to integrate the different theories of organizational control. Ouchi (1979) views the purpose of control as ensuring present and future cooperation and cooperative efforts among individuals or units with non-congruent goals. He identifies three major control mechanisms - "market", "bureaucratic", and "clan" mechanisms (op. cit., pp. 834-837) - and argues that these can be used at any level of analysis. The first mechanism is based on output measurement and relies on price information; the second, on hierarchical surveillance and relies on rules and procedures; the third on socialization and sharing of organizational values and norms and relies on organizational culture and traditions.

Extensive research has been made regarding the purpose design and functioning, as well as the effectiveness of control instruments. It has been shown that various forms of control result in differences in commitment to or alienation from organizational objectives. For our purpose, this research is of interest as it gives an insight into the efficiency of various control instruments and an identification of alternative ways to design and manage the instruments.

Measurement as a control instrument

Most theories of control discuss measurement as an important control mechanism. Measurement implies the quantification of the object or criterion of control. Measurement has most often been seen as a device to provide information necessary for corrective action. The control process involves the collection, analysis and transmission of information (Anthony and Dearden, 1976). Hofstede (1967), among others, observed that measurement also has a behavioral impact. It may affect perceptions and motivations so that individuals focus their efforts towards the criterion that is measured.

March and Simon (1958) have noted that the measurement itself generates the alternatives available for decision making. Correspondingly, it may also limit the available alternatives.

As the measurement may act as a constraint, the validity and reliability of the data in the information system is of critical importance. At the individual and group level of analysis Lawler (1976) has argued that participation in the design of the measurement system is positively correlated with perceived validity and reliability of the measures and to organizational commitment. Perceived validity and reliability of the information produced through the measurement is, in turn, positively correlated with performance outcomes.

Feedback and rewards as control instruments

Most researchers are in agreement that feedback on behavior and performance has a strong impact on both job outcomes and motivation. Consequently, feedback is an important control instrument. According to Lawler (1976), feedback provides the individual with information that enables him to correct behavior when it deviates from goals or standards. The information provided may have a motivational impact as it may suggest reward and punishment, as well as give direction.

Ilgen (et al., 1979) argues that the effectiveness of feedback is positively related, among other things, to its frequency and timeliness, its relevance to the task and its sign, i.e. if it is positive. Effectiveness is also improved if feedback comes from what is considered to be a competent source.

Ouchi (1979) has made a distinction between feedback on behavior and feedback on job outcome. Feedback on outcome is appropriate only when outcomes and the process behind the outcome are understood and can be measured with a high degree of validity and reliability. If this is not the case, feedback on work behavior, i.e. how the work is performed, is more appropriate.

When there is little understanding of the work process and the measurability of outcome is low, neither behavioral nor outcome feedback is appropriate as a control instrument. In this case traditional bureaucratic control instruments are also inappropriate, since these instruments assume that desired behavior and output can be specified and measured with reasonable precision.

Closely related to feedback is the distribution of rewards and punishments. Rewards and punishments can influence future behavior and performance. The mere existence of rewards and punishments may also function as an

important control instrument, as it creates expectations and influences the behavior towards goal achievement.

Research has shown that the effectiveness of rewards is related to how well the rewards are linked to actual performance, their timeliness and the extent to which they are perceived as valid and equitable. Obviously, rewards are also more effective as a motivational tool if their distribution base is congruent with the goals and aspirations of the individual (Lawler, 1977).

Planning and budgeting as control instruments

Planning and budgeting are traditional control instruments. On an ex ante basis, they are a vehicle to establish goals and standards to guide the actions of individuals, groups or units. Planning and budgeting also allow for an exchange of information towards the attainment of goal congruence. According to Anthony (1965), planning is an integral part of the control system.

On an ex post basis, planning and budgeting constitute a basis for measurement and evaluation of performance against pre-established goals and standards.

Empirical research has shown that goals are more effective in influencing performance outcomes the more they are understandable and specific, i.e. closely related to the task and job situation instead of being general (Latham and Yuki, 1975).

Argyris (1964) argues that participation in goal setting promotes congruence between individual and organizational goals and improves system effectiveness. There is also evidence that more difficult goals are positively correlated with higher performance levels (cf. Östman, 1977).

Organization structure and culture as control instruments

Blau and Scott (1962), Thompson (1967), Hall (1972), among others, see the development of organization structure as a primary response to problems of control and coordination. As already noted above, organizational specialization, vertical and horizontal differentiation, centralization, formalization, and standardization have all been considered as important control instruments. The formal structural characteristics of the organization are a control instrument in themselves as may reduce the variation and increase the predictability of behavior and performance levels.

Etzioni (1961) and Katz and Kahn (1978), among others, have pointed out the importance of norms and values as control instruments to guide behavior and actions. Organizational culture, i.e. the existence of common values and norms, can provide information about behavioral expectations and goals (Ouchi, 1979). The process of socialization ensures that the culture and the expectations about goals and behavior imbedded in the culture are understood and internalized by the members of the organization.

Many organizations do not have single or coherent sets of goals, partly because subunits are often only loosely linked to each other (March and Simon, 1958). Bureaucratic control instruments are not well suited in situations of goal incongruence, limited rationality and uncertainty, as these require standardization, predictability and objective measurements.

If common values and attitudes are shared among organizational members, the organization can nevertheless ensure desired behavioral patterns. Bureaucratic control instruments are then completed and/or replaced by "indoctrination" of desired behavior and supported by selection procedures. Through careful selection and training of appropriate individuals, self-control is instituted and the organization may rely less on direct surveillance and measurements.

However, socialization as a control instrument requires low turnover of personnel. Its efficiency depends among other things on the degree of goal incongruence (Ouchi, 1979, p. 846).

Control strategy in multinational companies

Few attempts have been made to systematically describe and analyze how MNCs balance their use of different control instruments. Most studies of control and coordination in MNCs have investigated the design and function of single instruments and systems. Seldom have these studies attempted to identify the relevant conditions which may influence the choice of and balance among different control instruments or the conditions which may affect the use of any particular instrument.

Still, we can expect that complex organizations like MNCs do not rely solely on one instrument to manage their headquarter-subsidiary relationships. On the contrary, it is likely that complex systems are used, with different emphasis on each, depending on specific contextual factors in each setting. It can also be expected that the various control instruments are in a state of dynamic interaction with one another, as well as with their context.

Recently some attempts have been made to identify the design and functioning of different control instruments used by the MNCs to coordinate and control overseas operations. Youssef (1975) investigated 302 US firms to determine how certain contextual factors influenced the control strategy of the MNCs.

Youssef identified eight control instruments: the choice of nationality of the subsidiary president, headquarter influence over selection and training of subsidiary managers, headquarter supervision and staff support, standardization of such factors as subsidiary organization

structure, operating procedures, accounting and product design. He also identified some contextual variables such as ownership share, size and age of the subsidiary, host country development and the international experience of the MNC as a whole.

Youssef found that only ownership share and age of the subsidiary had significant relationships with most of the control instruments. His data indicate that as ownership share increases, the use of the various control instruments tends to increase. It was also found that when the subsidiary gets older or the more developed the host countries are, the use of local nationals as managers tends to increase.

Youssef's study, although interesting, has some limitations for our purpose. The most serious one lies in the methodology. His identification of different contextual factors and control instruments incorporates different levels of analysis, thus preventing an analysis of potential relationships. Furthermore, most of the control instruments identified by Youssef do not easily lend themselves to measurements for statistical analysis.

Recently Prahalad and Doz (1980), through case studies, observed some forces which seem to influence the ability of headquarters to control the strategy of the foreign subsidiaries. According to the authors, what they call strategic control of subsidiary operations declines when the subsidiaries mature and grow in size. More mature subsidiaries can afford adequate management talent and their own R&D function. Similarly, as the industry matures the technological advantage that headquarters may possess disappears. As a whole, with greater industry maturity and subsidiary size, the extent of dependence on headquarters diminishes and its nature changes.

According to Prahalad and Doz, the problems of loss of control can be solved if more "subtle" controls replace "direct and overt" controls. Without precisely defining

the first type of controls, Prahalad and Doz stress the balance and shifts in the distribution of intra-organizational power and the use of supporting mechanisms to achieve a desired change in control strategy. Among the supporting mechanisms they are: (1) "people oriented mechanisms", e.g. staffing policies, reward systems, and patterns of socialization, (2) "data management mechanisms", e.g. information systems, budgeting and planning systems, and (3) "conflict resolution mechanisms", e.g. task forces, committees and integrative positions (op. cit., 1980, pp. 13-14).

The research of Prahalad and Doz is of interest as it is one of the few attempts to identify and conceptualize the problems of and needs for coordination and control of foreign subsidiaries in MNCs. The normative and prescriptive nature of the research, and the lack of more precise definitions than broader conceptual categories, limit the value of their study. Their uncontrolled sample, together with imprecise definitions and measurements, makes it unfortunately very difficult to establish and verify the existence and direction of any causal relationships among control strategy, control instruments, and contextual factors.

It is clear that headquarter needs for and modes of coordination and control may vary depending on subsidiary-specific factors. For example, Otterbeck (1979) has shown in great detail, using the same sample as I did, how the mode of managing the headquarter-subsidiary relationships may vary depending on the MNC's ownership share in the foreign entity. Hedlund (1979) has made a comprehensive investigation, also using the same sample, of how subsidiary autonomy is influenced by subsidiary-specific factors such as the size and location of the subsidiary, its age, the nature of the technology, and the magnitude of intra-company transactions. Hedlund found few statistically significant relationships and he questions whether any direct and simple relationships exist. Instead, he points

out the necessity to look at the context of decision making processes.

Most studies on the coordination and control of foreign subsidiaries have focused on subsidiary-specific factors. When the subsidiary is used as the unit of analysis, the context of the MNC as a whole is neglected. It can be argued that the characteristics of the environment and the strategy of the MNC as a whole are the primary determinants of the needs for coordination and control, and the design of various control systems. It is likely, however, that subsidiary-specific factors may explain variations in the actual use of different control systems. Such variation may then be caused by factors such as ownership share, subsidiary size, host country conditions, and subsidiary performance. We can expect, though, that the influence of subsidiary-specific factors is systematic in the sense that the influence in general can be observed to be equal in different MNCs. Earlier research results seem to point to such a conclusion (cf. findings of Brooke and Remmers, 1970; Alsegg, 1971; Robbins and Stobaugh, 1973; de Bodinat, 1975; Otterbeck, 1979; Hedlund, 1979; Garnier, 1980; Welge, 1980).

Consequently, subsidiary-specific factors do not necessarily contribute to our understanding of the internal functioning of the MNC or of the overall requirements for coordination and control of the foreign subsidiaries.

Some studies have focused on the MNC as a whole and the control strategies of these firms, on the other hand, most of these studies have been concerned with the design and functioning of individual control systems rather than the whole range of potential systems.

Edström and Galbraith (1977) have hypothesized that transfer of managers in the MNC can be used to coordinate and control the activities of the firm. They argue that transfer of managers among the foreign subsidiaries, and

between foreign subsidiaries and headquarter units, would lead to a control and coordination strategy based on socialization of organizational values and ideologies.

According to Edström and Galbraith (op. cit.), the transfer of managers enables the creation of informal information networks, facilitating control and coordination of the MNC by increasing the degree of identification, commitment and cultural internalization of its organization members. Their study is one of the few attempts at linking human resource management issues in the MNC to the intra-organizational relationships in these firms, and provides a major contribution in this area.

Another approach has been taken by Perlmutter (1969), and Heenan and Perlmutter (1979). They argue that the decision processes of the MNC are determined by the organization structure and the attitudes and perceptions of its managers. Perlmutter (op. cit., p. 18) has classified the attitudes and managerial orientations as being ethnocentric, polycentric, regiocentric, or geocentric, each category having a specific impact on various managerial aspects of the MNC. According to Perlmutter (op. cit.), the degree of multinationalism is also dependent on the pressures placed on the firm by its various stakeholders. As a whole, the cognitive orientation of the MNC's managers is hypothesized to have far-reaching consequences for the management of the headquarter-subsidary relationships.

Some research has pointed to the potential difficulties of implementing social control strategies in MNCs. As noted above, social control requires a low turnover of managers. It is also likely that cross-cultural differences in cognitive orientations and attitudes among organization members in the MNC may to a certain extent prevent internalization of organizational values and norms.

For example, in a sample of 3 641 managers from 14 countries, a considerable variation was found among nationalities, particularly regarding managerial attitudes toward subordinates and the degree of participative management (Haire, et al., 1966). Such differences may clearly make it difficult for managers to adapt to new environments and thus cause problems with the transfer of managers among different countries (cf. also Stymne, 1979).

Laurent (1979) found differences in management attitudes among 772 managers from 9 countries. Managers from countries like the United States, Switzerland, the United Kingdom, Germany and Sweden tended to view the role of the organization structure less as a political and authority system than managers from Latin countries like France, Italy and Spain.

Laurent (op. cit.) also investigated attitudes among managers from different countries who worked within the same MNC. He found even larger differences in management attitudes in this sample. In this study, the existence of a multinational corporation was not found to have any homogenizing effect on attitudes, independent of national culture. These research results show that there may be serious obstacles to creating a uniform organizational culture in the MNCs and to using socialization of values as an effective control instrument if managers represent different nationalities.

For our purpose, research on individual control instruments gives only a partial picture of the management of headquarter-subsidiary relationships in MNCs. From a methodological and conceptual point of view, the major problem and challenge lie in the description and analysis of the design and functioning of different control instruments and their interrelatedness and relevance in different environmental, strategic and structural settings.

SUMMARY

The purpose of this chapter was to develop a framework which may help explain potential relationships between the context of the MNC and the requirements for and modes of coordination and control of foreign subsidiaries. Specifically, the framework has been used in the following way:

The research on complex organizations has identified major forces behind organization structure and processes. This research current helps us to analyze the environment of the MNC and how environmental factors may influence the structure and the intra-organizational relationships of the MNC.

Research on business strategy and the impact of growth introduce the concept of managerial choice as a complement to the more static and deterministic relationships postulated by organization theory. Empirical research on growth strategies in the business firm has also contributed specifically to our knowledge about organization structure and processes in MNCs. This research helps us to further identify and analyze the strategic factors which may influence the design of control systems and management of head-quarter-subsidary relationships.

Taken together, the two research currents above allow us to identify and conceptualize the environmental and strategic context of the intra-organizational relationships, as well as the requirements for coordination and control in the MNC.

The research on organizational control allows us to identify different coordination and control instruments.

To facilitate the analysis, the various coordination and control instruments have been grouped into three major control systems. These systems are designated herein as organizational, administrative and social systems for the management of headquarter-subsidary relationships. In Chapters 4-6 we describe and analyze the design and functioning of each of these systems. The major control systems are broken down into specific instruments for coordination and control.

3 The Environmental and Strategic Context of the Headquarter—Subsidiary Relationships

The primary purpose of this chapter is to describe the key characteristics of the firms investigated, their competitive environment and the major attributes of their growth strategies. The environmental and strategic characteristics of the MNCs investigated influence directly or indirectly the need for and mode of coordination and control of their foreign subsidiaries. The characteristics of the MNCs investigated thereby constitute the context of the headquarter-subsidiary relationships.

A second purpose of this chapter is to briefly analyze how the context of the MNCs may influence the relationships. The potential influence of most of the contextual factors has already been discussed in Chapter 2, while in this chapter the analysis is focused on the influence of some specific factors which have not been discussed at length in earlier research. As such it complements the discussion in the previous chapter.

The selection of characteristics and attributes of the MNCs under study has been purposely restricted to include only those which have been found to be of major importance. The following characteristics are described and analyzed in succeeding sections: (1) the magnitude of international operations in the MNCs, (2) product diversity and diversification strategy, (3) industry and customer structure, and the competitive environment in which the

MNCs operate, (4) the nature of the technology and the manufacturing strategy, and (5) the degree of environmental uncertainty facing the firms. The chapter ends with a summary.

In the descriptions below, the names and industries of the company are kept anonymous. Although making the descriptions somewhat more abstract, this does not impose any restrictions on our purpose. Only the salient characteristics of the firms and their environment are of interest, not their specific names and industry settings. The description and classification of each firm are made relative to the others in the sample if not noted otherwise.

The key characteristics of the MNCs investigated are summarized in Table 3:1. Each of the dimensions in the table is further described in succeeding sections.

SIZE AND INTERNATIONAL OPERATIONS OF THE MNCs

All the MNCs investigated are relatively large. In terms of sales they are among the fifty largest industrial companies in Scandinavia, and among the thirty largest in Sweden.

Organizational size can be measured in different ways (cf. Chapter 2). Table 3:2 shows the size of each MNC using different measures. All figures refer to the end of the 1970s.

As is shown in Table 3:2, companies I-III are approximately equal in size. Companies IV-VI are relatively smaller, but as a group they are also of approximately the same size.

Table 3:1. Summary characteristics of the MNCs investigated

Company Charac- teristics	I	II	III	IV	V	VI
Degree of product diversification	Low	Low	Low	Medium	High	High
Technology intensity and level of complexity	High	High	Intermediate	Intermediate	Low	Low
Barriers to entry	High	High	High	Medium	Medium/Low	Low
Industry structure	Oligopoly	Oligopoly	Oligopoly	Oligopoly	Fragmented	Fragmented
Intensity and scope of competition	High global	High global	High global	High global	Medium local	High local
Degree of host country and government influence	High	High	Medium	Medium	Low	Low
Size	Large	Large	Large	Medium	Medium	Medium
Interdependence between headquarter and the subsidiaries	High/ Reciprocal	High/ Reciprocal	High/ Reciprocal	High/ Reciprocal	Low/ Pooled	Low/ Pooled
International experience	High/ Medium	High	High	High	High	Medium

Table 3:2. Size of the MNCs (rounded figures)

Company Characteristics	I	II	III	IV	V	VI
Total invoiced sales (in SEK 1000)	10.000	9.000	10.000	5.000	5.000	4.000
Total assets ^{a/} (in SEK 1000)	15.000	14.000	14.000	5.000	5.000	3.000
Total number of employees	40.000	65.000	55.000	20.000	25.000	15.000

a/ at book value

Magnitude of international operations

All six MNCs have extensive experience of international operations. With the exception of company VI, the MNCs started to internationalize their operations in the early part of this century and expanded rapidly after the second world war. Some of the MNCs established their first manufacturing subsidiary at the end of the last century. All six MNCs have more than 30 foreign subsidiaries and all had more than 10 manufacturing subsidiaries outside Sweden in 1978. Company II, for example, has over 60 foreign entities, of which more than 13 have manufacturing operations.

More than 50 % of the total sales of all six MNCs is generated abroad. In companies III and IV the Swedish home market accounts for less than 10 % of total sales. In companies II and V the Swedish home market accounts for less than 30 % of total sales.

With the exception of company I, all the MNCs have more than 50 % of their employees working outside Sweden. The

percentage for company I is approximately 25 % because their major manufacturing facilities are located in Sweden.

The effect of the MNC's size on headquarter-subsidary relationships cannot be carefully analyzed in this sample, since the size of the firms does not vary much. The large size, however, in absolute terms of the MNCs investigated indicates the organizational complexity of the firms (cf. Chapter 2).

Both the magnitude of international operations and the international experience of the MNCs are of interest for our purpose. There is some evidence, although not conclusive, that greater international experience may be related to less subsidiary autonomy. Empirical evidence regarding the potential impact of international experience on headquarter-subsidary relationships, as defined here, is scarce.

Most studies have focused on the effect of international experience on subsidiary autonomy in specific functional decision areas. Piccard (1978) found that headquarters in more experienced MNCs was more involved in the marketing decisions of their foreign subsidiaries; i.e., the subsidiaries had lower autonomy. Weichmann (1976) did not find any relationships of this kind. Robbins and Stobaugh (1973) found the reverse situation in the area of financial decisions in the foreign subsidiaries of US MNCs. Recently, Hedlund (1979) investigated subsidiary autonomy in our sample and found no clear association with experience.

It is difficult to perceive that the international experience of the MNC would have any major impact on the needs for coordination and control. It is possible, however, that experience is related to the modes of managing the relationships.

When experience increases, a learning process takes place in the organization. We would argue that during this process, the MNC gains experience in the design, use, and adequacy of instruments for coordination and control, particularly administrative ones. Everything else being equal, it is then probable that more experienced MNCs can increase the standardization of the control instruments in use. The learning that follows with an increase in experience makes the MNC, at any single point in time, better acquainted with system design alternatives. A chosen degree of system standardization can then be achieved more easily and still fit the particular coordination and control requirements of the firm.

It can be hypothesized that besides standardization of administrative systems, any other potential relationships between international experience and the design and functioning of the control systems are very weak or even non-existent.

PRODUCT DIVERSIFICATION AND DIVERSIFICATION STRATEGY IN THE MNCs

All six MNCs investigated have diversified their product portfolios to a varying extent. A simplified version of Wrigley's (1970, Chapter 3) and Rumelt's (1974, pp. 11-32) classification schemes of product diversity and relatedness was used.

The degree of product diversity was measured as the proportion of annual sales revenues during 1978 which can be attributed to different discrete product lines. If more than 50 % of annual sales revenues can be attributed to a single product group or activity, the degree of diversification has been classified as *low*. If a single product group or activity accounts for between 25-50 % of total sales, the degree of diversification has been classified as *medium*. Correspondingly, if no single activity accounts

for more than 25 % of total sales, the degree of product diversification has been classified as *high*.

Contrary to the concept of product diversity, the degree of product relatedness concerns how the firms have diversified, i.e. their diversification strategies. The degree of relatedness among different product lines is a composite measure and defined as the extent to which the MNC has built upon existing resources and skills when diversifying into new activities. For example, a common technology may be used in different product lines, the same production methods and distribution systems may be used for different products and/or different products may have the same end uses.

The degree of relatedness has been classified in three dimensions, namely, *dominant*, *related*, and *unrelated*. It is obvious that product diversity and relatedness are correlated with one another to a certain extent.

Using the classification scheme, a company with high vertical integration would be classified as being dominant. Contrarily, a firm which had diversified into new activities without regard to any relationships among different businesses would be classified as having had an unrelated diversification strategy. This last pattern is quite descriptive of so called conglomerate firms. A related diversification strategy implies that different discrete product lines are linked to each other.

Table 3:3 summarizes the diversification strategies pursued by the MNCs.

Companies I-III all have very narrow product lines, although many product varieties may exist within each line. More than 80 % of company I product lines are found within the same 3-digit S.I.C. code. In companies II and III one product line accounts for more than 50 % and 70 %, respectively, of total sales revenues.

Table 3:3. Diversification strategies in the MNCs

Company Characteristics	I	II	III	IV	V	VI
Degree of product diversification	Low	Low	Low	Medium	High	High
Degree of product relatedness	Dominant	Dominant	Dominant	Related	Un-related	Un-related

Company IV has a more diversified product portfolio. The largest single product line accounts for slightly less than 50 % of total sales revenues. Companies V and VI are highly diversified and are best described as being conglomerates.

The major product lines in each of companies I-IV are all based on the same core technology. Many lines make use of the same components and intermediate products. In general, all product lines in these firms are distributed through the same international distribution system.

These four MNCs have diversified primarily through internal expansion by adding new product lines developed or spun-off from existing products and technologies. In very few cases have these firms diversified through mergers and acquisitions. Acquired entities account only for a minor part of their total sales revenues.

Companies V and VI are considerably more diversified. Contrary to the other group of MNCs, these firms have diversified through the acquisition of other firms. During the 1960s and up to 1976, company V had an explicit strategy of becoming a conglomerate. Corporate policy has been that no single newly acquired entity should account for more

than 10-15 % of consolidated revenues. Company IV has diversified as well as internationalized its operations, mainly through foreign acquisitions.

As noted in Chapter 2, it is clear from prior research that product diversity has a profound impact on organizational structure and internal functioning of the firm.

We would expect that the headquarter-subsidary relationships in companies V and VI, being highly diversified, with unrelated product portfolios, would exhibit the characteristics described in Chapter 2. Compared to the less diversified firms, i.e. companies I-IV, we would assume that performance evaluation criteria differ, and that corporate management is less involved in subsidiary affairs.

Following our discussion in Chapter 2 regarding the effect of different diversification strategies on intra-organizational relationships, we would also expect that companies V and VI would have smaller headquarters offices than companies I-IV. Moreover, fewer corporate staff functions are likely to be found in this first group of MNCs, indicating that control and coordination requirements may in fact be lower in these types of firms.

INDUSTRY STRUCTURE, CUSTOMERS, AND COMPETITIVE ENVIRONMENT

As the particular industries in which the companies operate have had to be kept anonymous, the attributes of these industries are described instead. It is also the attributes of the industries which are of primary interest for our purpose.

Companies I-IV all operate in industries which are best characterized as international oligopolies. This holds for their major product lines, while minor lines are sometimes competing in fragmented industries.

The industry concentration is very high. In general, the four to five major manufacturers hold over 70-80 % of the total market. Companies I-IV have an average global

market share of 15-35 %. In some regions it may be even larger, while in others smaller. As the degree of product diversification is low in these four MNCs, the competitive position of their major lines is very important for corporate performance.

In general, companies I-IV encounter the same but few competitors in most foreign markets. Competition is global and comes from three to five other international firms with approximately equal market power. These firms are based primarily in other highly industrialized countries, such as France, Japan, West Germany, the United Kingdom, and the United States. Competitive rivalry is intense and each firm devotes considerable effort to competitive analysis and product positioning.

The industries of companies I and IV are slightly less concentrated. Relatively speaking, these two firms also encounter relatively small competitors which quite often are local companies.

The high industry concentration and the intensity of competitive rivalry are due to several interrelated factors. First, the major product lines, particularly of companies I, III, and IV, are mature in terms of their location on the product life cycle. Company II is still in its growth phase. For these firms product maturity implies slow industry growth and strong competition for market shares.

Second, the product lines require capital intensive production methods and/or make use of complex technologies. This leads to economies of scale in production and R&D and high barriers for new industry entrants. The characteristics of the technology and production function in these firms will be further discussed in a subsequent section.

The oligopolistic market situation facing the four MNCs has diminished the relative importance of price competition. Instead, other product attributes such as quality

and technology are emphasized. Companies I and II are considered to be among the leaders, with regard to technology in their respective industries. Companies III and IV emphasize product quality and global distribution and service networks as their major competitive strength.

Although price is not a major competitive parameter, it does not imply that the firms are operating in price inelastic markets. On the contrary, for all firms price and cost competitiveness are still very important. The emphasis on other product attributes, however, is part of their competitive strategy of increasing product differentiation. Being located in Sweden, a high cost country, the firms have a certain competitive disadvantage regarding price, which makes product differentiation more important. This creates needs for, among other things, rationalization of manufacturing operations.

Company III in particular, but also company IV to a certain extent, are price leaders within their respective industries. Companies I and II are engaged primarily in systems selling and turn-key projects, which makes price comparisons less meaningful. On the other hand, the strategic stakes in receiving an order are higher for these two MNCs, making it sometimes necessary to sacrifice short-term profitability (cf. Porter, 1980, p. 20).

Companies V and VI are operating in different industries. For most product lines the industry structure is best characterized as fragmented. Competition comes primarily from local firms with little or no international operations.

As the degree of product diversity is much higher in these two firms, compared to companies I-IV, different product lines clearly exhibit different characteristics regarding market position, competitive conditions, and product maturity.

As an average, also considering the relative size of different product lines, these two firms have fairly mature products, low technology intensity and large number of competitors which are often small or medium sized firms.

The most important competitive parameter is price. These two firms have also managed to gain competitive strength through extensive international distribution systems. Barriers to entry in their respective industries differ. They are low for company VI's major product lines because of low capital intensity in production, but high in company V's major product lines, which have heavy capital requirements. The intensity of competition is high, due among other things to the existence of substitute products.

Company V is slightly different from company VI. This firm has some product lines with very high global market shares. These lines are highly mature and require capital intensive production methods. The company has long had extensive international operations in the form of foreign manufacturing facilities for these lines. In these particular product groups barriers to entry are considerable.

One distinct difference between companies I-IV and companies V and VI is that there is less value added in the major products of the latter group of firms. This factor, among other things, has contributed to preserving the local nature of their respective industries.

A second difference between the two groups of firms is that the two conglomerates, i.e. companies V and VI, are not exclusively selling industrial goods. Some of their products are consumer durables and sold directly to end users. Most of their product-market activities, however, are directed towards industrial goods markets.

Table 3:4 summarizes some of the industry characteristics and the competitive position of the firms investigated. The figures relate to the situation of the sub-

Table 3:4. Industry structure and competition

Company						
Characteristics	I	II	III	IV	V	VI
Average industry concentration ¹	81%	97%	79%	90%	97%	40%
Average number of competing firms	5	3	5	4	10	>50
Type of competitors ²	Mostly foreign owned firms	Mostly foreign owned firms	Mostly foreign owned firms	Both foreign and local firms	Both foreign and local firms	Mostly local firms
Average intensity of competition ³	2.0	1.6	2.0	2.5	3.33	3.0
Average market share for the firm ⁴	25%	39%	25%	47%	60%	16%
Sample size ⁵	5	5	4	4	3	3

- 1 Industry concentration has been measured as the combined market share of the four largest sellers in the market. The variance is high particularly for companies I, V and VI. Figure for company V is not representative as noted above.
- 2 Type of competitors in each subsidiary market has been classified by subsidiary executives in six categories e.g. foreign owned firms, local firms (private), state-owned enterprises, foreign imports etc.
- 3 Intensity of competition has been classified by headquarter and subsidiary executives according to a 5-point scale, ranging from 1, equal to very high intensity, to 5, equal to very low intensity.
- 4 Average market share for the subsidiaries in their respective host countries. The variance is high. The figure for company V as noted above is not representative.
- 5 The number of investigated subsidiaries in each MNC. All measurements except intensity of competition have been made at the subsidiary level.

subsidiaries studied in each MNC. The figures are representative for the firms as a whole except for the market-share and industry-concentration figures for company V. The figures for this company relate to one specific product line and market segment in which the firms have achieved a very dominant position through the acquisitions of competing firms. The figures for company VI relate to the two most international product divisions in the MNC.

As is shown in Table 3:4, the industry concentration is high, particularly in the industries of companies I-IV. This is apparent when concentration is measured as the number of firms competing in the industry. The average number of firms competing in the industries of companies V and VI are 10 and 52, respectively, compared to less than 5 in the industries of the other four MNCs.

The figures for industry concentration, measured as the market share for the four largest sellers in the countries of the subsidiaries investigated vary considerably. The variation is due to differences in each geographical market.

Geographical differences in market shares are more pronounced in the MNCs operating in oligopolistic markets. Company II, for example, has a market share of over 90 % in Sweden, and around 40 % in Brazil, and less than 1 % in the United States, and an average market share of 16 % worldwide. Similarly, company IV is strong in Europe, with an average market share of over 40 % compared to less than 10 % in the United States.

Knickerbocker (1973) has shown that the global spread of MNCs in oligopolistic market structures is dependent on the market presence of its competitors. In the effort to increase and/or preserve global market shares, the establishment of foreign subsidiaries in these types of MNCs tends to follow the geographical establishment pattern of

their competitors. Market shares tend to be fairly stable in mature oligopolistic markets. No single firm can allow an uncontrolled geographical spread of its competitors. Geographical differences in competitive position emerge easily under these conditions. This is the major explanation for the observed variance in market shares for companies I-IV.

In the two conglomerates the variance is explained primarily by their product diversity and their internationalization pattern, i.e. in which foreign countries they have chosen to undertake direct investments.

The customer structure in the MNCs

All six firms investigated manufacture almost exclusively industrial products. The nature of the six firms' customer segments differs, however, in both the number of and type of customers.

Companies I and II have a highly concentrated customer base. Both firms are extensively engaged in system sales rather than single products. The products are sold primarily to public customers, i.e. governments, public agencies and/or state-owned enterprises.

More than 30 % of company I's total sales go to public customers. For company II public customers account for more than 45 % of total sales revenues. Private industrial firms account for the remainder of both MNCs' total sales.

The high proportion of public customers implies high customer concentration. These customers often requires public tenders as a basis for their purchasing decisions. Information about prices is therefore easily accessible, thus often compelling the MNC to harmonize its prices worldwide.

Companies III and IV market their products primarily to private-owned and in some instances state-owned industrial

firms. The smaller proportion of public customers compared to companies I and II makes their customer structure relatively speaking less concentrated.

Compared to companies I and II, companies III and IV are also more involved in the sale of single products with standardized product specifications. In spite of this, their customers are concentrated in absolute terms. A large proportion of their total sales goes to original equipment manufacturers. These customers are often of considerable size and multinational in scope. In many instances they use companies III and IV as suppliers in many parts of the world and are sensitive to price differentials. As a consequence, global price harmonization is of importance also in these two MNCs, as is a coherent marketing approach among the foreign subsidiaries.

Companies V and VI have a different customer base. Their customers are mostly local privately owned firms, which are relatively small. The bulk of the products are standardized with low technology intensity. Compared to the other four MNCs, marketing efforts, segmentation and distribution networks are more important for companies V and VI. Price differentiation is also more easily implemented because of the nature of the customer base.

The high product diversity in companies V and VI makes measurements of market characteristics difficult. The description above holds, however, for products which account for the majority of total sales revenues.

Having described the characteristics of the competitive environment and the customer structure of the six MNCs, the next section will analyze the potential impact of these contextual variables on headquarter needs to coordinate and control subsidiary operations.

The potential impact of industry and customer structure, and competitive environment on the headquarter-subsidary relationships

As already described in Chapter 2, it has been observed in earlier research that increased competition tends to lead to a decentralization of responsibility. Decentralization becomes necessary in order to enable the firm to be responsive and to react swiftly to changes in competition.

These findings are not exhaustive, though, as the nature of the competitive conditions may also require a centralization of decision making. If the MNC operates under intense competitive conditions, which also are characterized by oligopolistic market structures, it is likely that two opposing forces are working simultaneously. Competition alone requires swiftness and responsiveness in decision making which, as described above, is likely to be achieved by increasing subsidiary autonomy. However, oligopolistic markets imply high interdependence among the competing firms. If the oligopoly is global in scope, the MNC's market behavior in one country may have an impact on the competitive conditions in other countries.

A need then arises to ensure coherent market behavior among the foreign subsidiaries. The striving for coherence implies that the market conduct has to be coordinated and controlled by the center. The subsidiaries would be free to act and make decisions within their organizational domains, but their discretion would be specified and constrained within the limits established by the center, i.e. headquarters.

The need for coordination and control is not necessarily equal under all forms of oligopolistic conditions. The nature of these conditions may vary considerably, thereby changing the control requirements.

If there is substantial collusion among different companies regarding price and other competitive parameters, the need for headquarters to internally control and enforce agreements among the subsidiaries is stronger. Other factors may also mediate the influence of the competitive conditions on intra-organizational relationships. Such factors may be the relative bargaining power of sellers versus buyers and political and social limits on bargaining and collusion in the industry (Williamson, 1975).

Stigler (1964) has shown that collusion is more effective when prices are easily comparable and investigated, if the customer structure is stable, if the number of sellers and buyers are relatively small, and if the relative size of competing firms is fairly equal. For our purpose Stiegler's findings imply that the influence of industry structure may be mediated by, among other things, the customer structure of firms.

Subsidiary market conduct in oligopolistic markets is non-routine and may require competitive responses which are not easily standardized or pre-specified. To control market conduct, more elaborate and complex control instruments such as socialization may be required. Such instruments are more appropriate to the control of non-routine tasks.

Intense competition in a fragmented industry probably makes a decentralization of decision making appropriate. As fragmentation implies less interdependence both between and within countries, the needs for central coordination and control are not so strong. MNCs operating in this type of industries may therefore require less complex instruments for subsidiary coordination and control.

It is obvious that the higher the customer concentration, the more important is each single customer relationship for the performance of the firm as a whole. High customer concentration implies that the relative bargaining power of the customers versus the sellers is stronger.

As a consequence, sellers have to be more adaptive to customer requests than if the customer base is fragmented. Besides concentration, the relative size of customers versus sellers affects the relative bargaining power of the two.

We can hypothesize that strong requirements to be adaptive to customer requests, resulting from lack of bargaining power among sellers, would lead to decentralized marketing responsibility. This hypothesis is symmetrical to the earlier research findings regarding intensity of competition, which has been shown to be positively correlated with decentralization. Both factors require adaptiveness and swiftness in market conduct, which are best promoted by decentralization of marketing responsibility.

Decentralization does not, however, imply less need for coordination and control. In the multinational context it does not mean that the subsidiaries are highly autonomous in the area of marketing decisions. On the contrary, although marketing may be decentralized in an operative sense, there may still be, as noted above, a strong need for the center to closely coordinate and supervise the marketing activities of the foreign entities (cf. Perrow, 1977).

Such a need may exist, for example, if the marketing efforts of a single subsidiary can have an impact on the activities and performance of other subsidiaries and the MNC as a whole. Similarly, if any single market is of considerable importance for company performance as a whole, central control of company activities in that market may often be necessary. It is likely that high customer concentration and strong bargaining power increase this need for central coordination and control.

This situation can be briefly illustrated by taking company II as a case in point. This MNC has extensive sales of customized systems to public customers. Techno-

logical requirements and product specifications require close customer contacts. Furthermore, intimate knowledge about local conditions, competitive conditions and customer behavior and requirements is necessary. Each local subsidiary is considered by headquarters to be the organizational unit which is best equipped to gain the necessary local expertise and to handle the customer contacts. As a consequence, this MNC has decentralized local market responsibility to its foreign subsidiaries, giving them great discretion in their marketing efforts.

With the highly concentrated customer structure, however, each individual customer is very important for the MNC as a whole. In fact, around 300 customers account for approximately 40 % of company II's consolidated sales revenues. Each customer that has bought the MNC's equipment is also an important reference for future sales to other potential customers. Overall, this gives rise to a strong need to coordinate and control subsidiary marketing efforts, price levels and product specifications.

The situation in company II illustrates that there may exist simultaneous needs both to decentralize marketing decisions to the subsidiaries and to coordinate and guide their activities on a global level. Although these needs are quite extreme in this particular MNC, the situation is not uncommon. Companies I, III, and IV exhibit the same situation, which is caused by complex market interdependencies among different countries.

Companies V and VI do not face this form of interdependence, as they have many customers and each is relatively small and local in scope. Their foreign subsidiaries can adapt their marketing mix to suit local market conditions. A decentralization of decision making can be more easily achieved without requiring headquarter intervention and guidance.

It should be noted that such a decentralization does not necessarily occur. Still, economies of scale may be gained through global standardization of marketing activities when the firm's international activities reach a certain level (cf. Sorenson and Wiechmann, 1975). Central coordination and control may then be necessary in order to achieve and sustain a standardized market approach among the foreign subsidiaries. This is particularly the case for consumer product firms which need to protect brand name loyalty.

To summarize, in some instances an MNC needs to allow its subsidiaries great discretion in marketing decisions, and promote high adaptiveness to host country conditions, while headquarters must simultaneously coordinate and control worldwide market conduct and product policies. Oligopolistic market structures, intense competitive rivalry and high bargaining power of customers visavi sellers are important factors behind these simultaneous and conflicting needs.

This is the case with companies I-IV because of market interdependence among different countries and the strong relative bargaining power of their customers. The situation is particularly pronounced for companies I and II, as public customers account for a large proportion of the total sales revenues of these MNCs. Companies III and IV have a similar problem, since they are global suppliers to other MNCs. For reasons described above, companies V and VI do not face this situation.

TECHNOLOGY AND PRODUCTION IN THE MNCs

Because of the size and diversity of the MNCs, several different technologies exist within the same firms. Care has been taken to classify the nature of the major or core technology employed.

The nature of the technology in the MNCs has been classified in different ways. The complexity of the core technology has been assessed by the researcher to allow for comparisons among the firms. Operations technology has been classified according to whether it is customized, large or small batch, or small production. None of the firms are involved in process manufacturing. The capital intensity of the firm has also been taken into consideration. It has been measured as average fixed assets as a percentage of total assets for the period 1970-1978. Table 3:5 shows the results.

Table 3:5. Technology in the MNCs

Company Characteristics	I	II	III	IV	V	VI
Level of technology complexity	High	High	Intermediate	Intermediate	Low	Low
Primary production methods	Custom and large batch	Custom and large batch	Large batch and mass production	Small to large batch	Large batch and mass production	Large batch and mass production
Fixed assets as a percentage of total capital (Average for period 1970-1978)	31	21	32	20	41	35

The core technology employed by companies I and II is highly complex both in absolute terms and relative to the other firms investigated. As already noted, both firms are considered technological leaders within their industries, and technology is also a major competitive parameter. Efforts are made to keep technological advancements and product designs proprietary, and large investments are continuously made in research and development (between 7-12 % of total sales revenues).

Companies III and IV employ less complex and more mature technologies than do companies I and II. The technology level is also less important for their competitive posture. The two MNCs differ regarding principal production methods. Company IV produces primarily standardized products in small or large batches. Company III is heavily involved in large batch or mass production.

The characteristics of the technologies employed by companies V and VI are difficult to classify because of their high product diversity. Nevertheless, to provide a composite classification of their major technologies, these two MNCs employ mature technologies of a low level of complexity. The production methods of companies V and VI are primarily geared towards large batches or mass production of highly standardized products.

The capital intensity is relatively high, particularly in companies I, III, IV and VI. The figures for company V are partly overstated, as this firm has substantial investments in real estate. In companies II and IV the value added is derived primarily from technology and distribution capacity, respectively. In both firms, critical components are bought from independent suppliers. This explains their relatively lower capital intensity.

The nature of the technology in the MNCs makes it possible to realize substantial economies of scale in production, i.e. declines in unit costs of a product with increases per period in production volume. In companies I and II there are economies of scale, particularly in the manufacturing and testing of standardized components and products. As already noted, these items are used as parts of more customized systems and turn-key installations. These two MNCs have also achieved cost reductions, independent of economies of scale, through their experience in designing and assembling the systems. This experience is largely due to proprietary technology and the sharing of the technology between different product groups.

For companies III-VI scale economies are also substantial. Company III in particular has achieved scale advantages in the manufacturing of standardized mature product lines. The same holds largely for company V.

Economies of scale are present not only in manufacturing but also in R&D by sharing this function among product lines. Similarly, cost reductions have been achieved in distribution by sharing distribution costs among different products.

Manufacturing and R&D strategy in the MNCs

The manufacturing strategy of the six MNCs investigated differs somewhat because of the nature of the technologies and their competitive strategy. There are also strong similarities, particularly between companies I-IV, mainly for historical reasons.

From a historical perspective, the international expansion of these four MNCs was based on unique product inventions and proprietary technology. The Swedish home market, which was comparatively small, soon became saturated. But access to technological expertise and skilled labor in Sweden led the MNCs to invest in manufacturing capacity there.

In order to realize economies of scale, the companies centralized production facilities to a few locations, primarily in Sweden and other locations in Western Europe. These facilities served world demand and were supported by the establishment of foreign sales subsidiaries and assembly plants.

The centralization of manufacturing capacity was followed by a similar centralization of the R&D function. As R&D is a critical resource for these MNCs, central control of the function has been considered necessary. Substantial economies of scale could also be achieved in R&D, and new

product developments were facilitated by locating R&D and manufacturing closely together.

During the 1950s and 1960s, companies I-IV, and companies III and IV in particular, established some large manufacturing facilities in continental Europe and the United Kingdom, sometimes in connection with the acquisition of competitors on these markets.

With an increase in labor costs and competition in Sweden and elsewhere, the manufacturing operations of the MNCs were extensively rationalized and became more capital intensive. As a result, none of the four MNCs could generally manufacture their major products more cheaply than in their existing facilities located in Sweden or Europe.

Besides cost reductions, the centralization of manufacturing capacity had a second major advantage in that it facilitated product standardization and quality control. Standardization improved cost competitiveness, and quality became an important part of the MNCs competitive strategy.

The need to exploit economies of scale and other advantages of centralizing manufacturing and R&D capacity has affected the MNCs' foreign investment behavior. Investments in manufacturing and R&D at the subsidiary level are restricted and closely controlled by corporate headquarters.

Company I's prevailing policy regarding foreign investments in manufacturing illustrates the situation. According to corporate policy, the establishment of foreign plants, as opposed to exports, is permitted only if one or more of the following conditions are fulfilled; (1) if a foreign market cannot be served by an existing factory in Sweden or elsewhere, (2) if exceptional profitability can be achieved, (3) if an investment can provide sales support for products manufactured in Sweden.

This policy has been established to ensure continuous high capacity utilization of the capital intensive manufacturing facilities in Sweden and a few other foreign loca-

tions. Similar policies are more or less explicit in companies II, III and IV as well.

The implementation of these policies is not without problems. In many countries, particularly less developed ones, there is strong pressure on the MNCs to start or expand local manufacturing and R&D activities. Visible and invisible trade barriers make it increasingly difficult or even impossible to continue exporting from centralized plants.

Besides trade barriers, host government demands and competitive pressures have forced companies I-IV to establish manufacturing plants in many countries. These pressures often imply that a decision to produce in the market or not determines whether the company will have access to the market.

When investing in manufacturing capacity abroad, these firms follow the strategy that the foreign subsidiary should only serve its local market. With such restrictions on the market territory of the subsidiary, the impact on the rest of the production and logistics system is limited.

Many host governments also request that the foreign subsidiaries should start or expand their exports of locally produced goods, increase R&D efforts and employ local managers. If these requests are not granted by the MNC, various negative sanctions are imposed; i.e., no access to preferential financing sources, and less business with public customers.

The power of host governments to enforce such sanctions depends on several factors. Among the most important are the relative bargaining power of the MNC and the host government and their overall dependence on each other (cf. Doz and Prahalad, 1980).

The relative bargaining power of company I-IV is not particularly strong, at least not in those countries which have a strong market and economic potential. Companies I and II are, as already described, highly dependent on good government relations, since public customers account for a substantial part of their sales revenues. Similarly, companies III and IV are dependent on access to local markets in order to be able to serve their multinational customers. For all four MNCs the oligopolistic nature of their industries makes it important to adapt to local conditions and host government requests. Otherwise, market shares are easily lost to competitors.

The simultaneous needs to take advantage of potential economies of scale and to adapt and conform to host government demands place the MNCs in a strategic dilemma. This dilemma is not easily resolved and often results in lengthy negotiations with host governments coupled with other efforts to restrict any negative consequences of a fragmentation of manufacturing operations. Needless to say, it also tends to promote conflicts between headquarters and foreign subsidiaries regarding the strategic choices to be made (cf. Hedlund, 1980).

Overall, the dilemma creates a need for a delicate balance between a global product perspective emphasizing product rationalization and cost competitiveness, and a local perspective emphasizing adaptability and a geographic differentiation of strategies and operations. For companies I-IV the need for balance is magnified by the nature of their customer structure and the competitive conditions in their industries.

In discussions with managers in the firms investigated, it was noted that the establishment of foreign plants was dictated more by trade barriers and competitive pressures, than by a desire to take advantage of any relative cost differentials between countries. This investment behavior

is interesting, since it is inconsistent with the theories of traditional trade and the international product life cycle (Vernon, 1966).

When undertaking foreign direct investments, the four MNCs generally choose to use the same technology and production methods worldwide irrespective of any differences in production factor costs in different countries. As noted above, standardization of production methods ensures smooth manufacturing operations and homogeneous product quality.

The advantages of standardization from a managerial point of view have been noted by others. Morley and Smith (1977) have observed that MNCs use different production methods abroad only because of differences in the scale of operations, as opposed to differences in relative factor costs. Skinner (1968) and Wells (1974) have argued that MNCs should differentiate their technology and production methods in order to take advantage of factor cost differentials and to adapt to local technological conditions. These authors have not considered, however, that competitive conditions may force the MNC to standardize production methods in order to ensure homogeneous quality standards. Global standardization also facilitates internal sourcing and the supply of intermediate and final products from multiple, geographically dispersed foreign subsidiaries.

Companies V and VI have had a different manufacturing strategy. These two MNCs are less restricted in the establishment of foreign manufacturing facilities. Similarly, their R&D function is more decentralized than in companies I-IV.

Three factors explain this difference. First, companies V and VI have internationalized their operations through acquisitions. As a result, many existing foreign plants were acquired at the same time. Second, the products of these MNCs are often costly to transport. There are economic incentives to locate manufacturing near end-users.

Third, many product lines must be adapted to local needs and standards. Consequently, global production standardization is both less important and less advantageous. The critical question for companies V and VI when establishing foreign plants is whether the local market is large enough to make the investment viable. As their foreign manufacturing subsidiaries operate fairly independently, there are fewer intra-company transactions than in the other four MNCs. For the reasons mentioned above, there is also less emphasis on global standardization of production methods and technology.

All six MNCs try to avoid investing in any R&D capacity at the subsidiary level. Still, the R&D function may be decentralized to product divisions. The wish to keep central control over the R&D function, in spite of host government pressures, is due to a potential loss of economies of scale in R&D and difficulties of financing fragmented R&D efforts (cf. Duerr, 1970). In the case of companies I and II, competitive conditions in their industries also require that they control the diffusion of their proprietary technology.

The strategy of companies I-IV to centralize manufacturing capacity leads to complex interdependence within the firms. While the buying subsidiaries are dependent on other company units for supplies, the selling units are dependent on the subsidiaries as customers. Overall, this creates reciprocal interdependence - to use Thompson's (1967) classification. Companies V and VI exhibit less complex interdependence, as each subsidiary operates more independently. The type of interdependence prevalent in these two firms is more similar to what Thompson calls pooled interdependence.

The degree of interdependence is re-enforced by the interdependence caused by the characteristics of the market and the customer structure of companies I-IV.

The degree of interdependence in the MNCs is reflected in the magnitude of subsidiary imports of intermediate and final products from the parent company. To assess the consequences of the manufacturing and R&D strategy of the firms, the magnitude of subsidiary exports and R&D expenditures has also been measured. Table 3:6 shows the results.

Table 3:6. Subsidiary imports, exports and R&D expenditures

Company						
Characteristics	I	II	III	IV	V	VI
Average subsidiary imports from parent company (as percentage) ¹	26.4	24.8	18.2	40.5	8.3	nil
Subsidiary exports to parent company (as percentage) ¹	5	4.7	0.5	0.3	nil	nil
Subsidiary exports to sister companies (as percentage) ¹	8.4	nil	6.7	nil	nil	nil
Subsidiary exports to third parties (as percentage) ¹	4.2	12.4	0.5	2.0	1	0.3
Subsidiary R&D expenditures (company definition) (in US \$ 1000)	1000	n.a.	nil	330	nil	nil

1 Measured as a percentage of total sales by the subsidiaries.

2 Figures relate to subsidiaries in the most international product division.

As can be seen in the table, subsidiary imports from the parent company are a substantial part of total sales in companies I-IV, but less so in companies V and VI. The manufacturing strategy of the first group of MNCs, with centralized manufacturing facilities, explains these differences.

As shown in the table, the low magnitude of subsidiary exports as a percentage of total sales illustrates the policy of all the MNCs to restrict the market domain of the foreign entities. Exports are rarely allowed, as they create internal competition and, in the case of companies I-IV, may reduce capacity utilization in other existing plants.

Similarly, the non-existent or low expenditures on R&D by the foreign subsidiaries reflect the MNCs' policy of keeping central control over the R&D function. There is either no variation, or very little, among subsidiaries within each MNC in this respect.

The technology and manufacturing strategy of the MNCs clearly influence the firms' needs for coordination and control of the foreign subsidiaries. The importance of technology for the competitive position of companies I and II in particular creates a need for the center to coordinate and control its use. As an example, the foreign manufacturing subsidiaries of these two MNCs are not allowed to change any product specifications or production methods without headquarter approval.

It can be argued that in MNCs which exhibit these characteristics, the functioning of integrative devices and control instruments must meet higher standards than in low technology firms like companies V and VI. It is not primarily the degree of centralization in manufacturing which creates such a situation, but rather the relative importance of the technology for the competitiveness and performance of the firm as a whole.

According to earlier research, we would expect the MNCs operating under unstable technological conditions to be more informal and to rely more on social control systems than on organizational and administrative systems. Companies I and II operate under particularly unstable conditions, while companies III and IV have fairly complex but less dynamic technologies. We would also expect the firms with job order and small batch production to be less specialized and to have less hierarchical and formal structures than firms engaged in mass-production. We will return to this in succeeding chapters.

DEGREE OF ENVIRONMENTAL UNCERTAINTY

An attempt was made to measure the degree of uncertainty facing the MNCs. If the degree of perceived uncertainty differs, this affects the need for coordination and control. Differences in environmental uncertainty can also explain potential differences in the design and functioning of the control systems in the MNCs (cf. Chapter 2). These measurements complement the descriptions of the contextual factors in the preceding sections.

Subsidiary managers were asked to subjectively assess on a 5-point scale, how difficult they considered it to be to predict different environmental variables. Table 3:7 shows the results.

As can be seen from the table, no clear pattern exists regarding the degree of uncertainty among the companies. The figures also indicate that subsidiary managers have grown accustomed to uncertainty and are not particularly bothered by it. As can be observed on some items, however, the variance is large and interpretations should be made with great care.

Table 3:7. Subsidiary managers' ability to predict host country market and political conditions

Company							
		I	II	III	IV	V	VI
Market demand	Average	3.8	3.6	2.0	3.2	2.6	2.3
	Variance	0.2	1.8	1.3	0.9	2.3	0.3
Political conditions	Average	3.0	2.6	3.7	3.0	3.0	2.0
	Variance	1.0	0.3	1.5	0.6	1.0	-
Market for supplies	Average	3.4	1.8	2.2	1.7	3.0	2.6
	Variance	0.8	0.2	0.9	0.9	-	0.3
Market for capital	Average	2.8	2.4	3.2	2.2	1.6	2.6
	Variance	0.7	0.3	2.2	0.2	0.3	0.3
Labor market	Average	2.6	3.0	3.5	2.0	3.0	2.0
	Variance	0.3	0.5	3.0	0.6	1.0	1.0

Key 1 = Very easy
5 = Very difficult

The measurement has certain important shortcomings, which make it difficult to draw any firm conclusions. Our ability to make comparisons among the firms is restricted in that the degree of uncertainty is confined to the experience and perceptions of the individual subsidiary managers and the context in which they operate. In a different context the perceptions may vary.

To complement the subjective measurements above, an attempt was made to measure the degree of uncertainty in more objective terms. One such measure is the variance in the return on total capital. Variations in returns give an indication of the degree of business risk facing the firm. The standard deviation and range in consolidated return on total capital was calculated for each MNC. In order to smooth the impact of changes in the business cycle, the measurements were made for a period of eight years. Table 3:8 shows the variance, as well as the aver-

age return on total capital in the six MNCs. Of course, return on capital gives also an insight into the financial performance of the MNCs.

Table 3:8. Average values and variation in return on total capital in the MNCs (for the period 1970-1978)

Company Charac- teristics	Company					
	I	II	III	IV	V	VI
Average return on total capital (%)	7.11	9.64	7.28	13.91	8.08	10.68
Standard deviation in return on total capital (%)	1.57	2.11	2.79	2.46	3.27	5.68
Range in return on total capital during the period (%)	5.04- 11.70	5.35- 12.27	3.77- 12.15	11.38- 17.94	3.18- 11.39	4.33 24.50

According to this measurement, companies V and VI, the two most diversified MNCs, face the largest variation in return, and - given the accuracy of the measurement - also the highest degree of uncertainty.

It should be noted, however, that uncertainty is composed of variations in several interrelated dimensions of the internal and external environment of the firm. This variation may not necessarily be reflected in the return on capital. The degree of variation in return may instead indicate of how well the firms have managed uncertainty.

Our own subjective opinion is that the degree of uncertainty is high in all six firms. This is due to their geographical diversity and the nature of their environmental and strategic context. The potential influence this may have on intra-organizational relationships has already been discussed extensively in Chapter 2. The primary value of the measurements above is that they give further insight into the environmental and strategic context of the firms.

SUMMARY

The primary purpose of this chapter was to describe the sample of MNCs and their environmental and strategic characteristics. These characteristics constitute the context of the headquarter-subsidiary relationships. A second, less important purpose was to analyze and advance some hypotheses on how the environmental and strategic context may influence the MNC's needs for coordination and control of its foreign subsidiaries. The analysis complements the discussion in Chapter 2, but focuses on the potential influence of some contextual factors which have not been discussed at length in earlier research.

The following contextual factors were described and analyzed: (1) the size and magnitude of international operations in the MNCs, (2) the product diversity and diversification strategies pursued, (3) the nature of the customer structure and competitive environment, (4) the nature of the technology employed and the manufacturing strategy, and (5) the degree of environmental uncertainty facing the firms.

The key characteristics of the environmental and strategic context of the MNCs investigated are summarized below. The reader is also referred to Table 3:1.

Product diversification. In companies I-III one single product line accounts for over 50 % of total sales revenues. In company IV the product lines are related, all using a common core technology. Companies V and VI have a highly diverse and unrelated product portfolio. Companies I-IV have diversified through internal expansion, while companies V and VI have grown and diversified primarily through acquisitions.

Barriers to entry are high in companies I, II and III, because of capital-intensive methods and/or the level of technology. There are also barriers to entry in companies IV and V, mainly in distribution and marketing.

All companies except V and VI operate in *oligopolistic markets*. *Competition* is intense and comes principally from other MNCs operating on a worldwide basis. In companies III and IV price and customer service are the major competitive parameters. Company III is the global price leader in its industry. Companies V and VI encounter competition primarily from local companies operating in each foreign market. In companies I and II the level of the technology and product quality are the most important competitive parameters. All companies manufacture industrial products, with the exception of companies V and VI, which also have some consumer products.

Companies I and II, in particular, are exposed to considerable *government influence* in their operations. First, their major product lines are of strategic importance for many host countries. Secondly, national or local governments or state-owned enterprises are their major customers in most countries.

Companies III and IV have a *customer structure* dominated by rather few large private enterprises. Some of their customers are MNCs which use companies III and IV as suppliers on a global basis. Companies V and VI have a fragmented customer structure and little government involvement in their operations.

Interdependence. Thompson's (1967) classification was used. Companies I, II, III, and IV exhibit reciprocal interdependence, while V and VI have less complex forms of interdependence, i.e. pooled. In companies I, II, III, and IV, production and R&D are centralized in Sweden and in a few other locations. This centralization is partly explained by substantial economies of scale in production, with a consequent need to concentrate production to a few large manufacturing facilities. Capital-intensive production methods and a small home market also explain the high degree of centralization of manufacturing capacity.

Companies V and VI exhibit simpler forms of interdependence; each subsidiary operates independently in its respective host country. Consequently, in these firms there are less internal trade and less complex forms of interdependence.

All firms investigated have long *experience in operating internationally*. Company II, for example, established its first foreign manufacturing subsidiary towards the end of the previous century. In all firms foreign sales account for more than 50 % of total sales. Companies I and VI internationalized their operations primarily during the early 1960s and 1970s, respectively. All MNCs are among the fifty largest firms in Scandinavia.

4 Organizational Systems for the Management of Headquarter–Subsidiary Relationships

This chapter is the first of three which will discuss how the MNCs manage headquarter–subsidiary relationships. The specific purpose of this chapter is to describe and analyze the design and functioning of the organizational systems for subsidiary coordination and control.

The organizational systems consist of several inter-related subsystems, each being an instrument in guiding and coordinating the behavior of the foreign subsidiaries. The organizational instruments are a part of and strongly linked to the design of the formal structure and the hierarchy. More precisely, the following instruments are separately described below: (1) the MNC's formal organization structure and the rationale behind the structure, (2) the functions of corporate and divisional headquarters, (3) the standardization and policies and procedures, (4) headquarter committees and task forces, (5) the functions and responsibilities of the board of directors in the foreign subsidiaries, and (6) communication flows and patterns within the MNCs. The chapter ends with a summary.

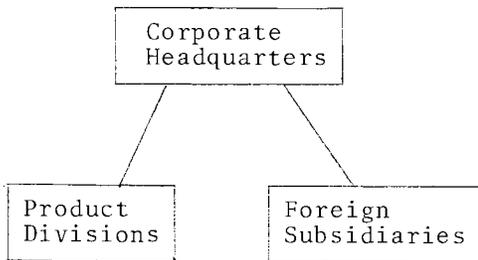
The design of these instruments gives only a partial picture of their importance. Their functioning is also of interest. In this respect, the instruments are process-oriented and have many informal dimensions.

As will be detailed, the design and functioning of the organizational instruments can be explained largely by three factors; the environmental and strategic context of the MNCs, the design and functioning of other organizational control instruments, and - as will be shown in Chapters 5 and-6 - the design and functioning of the administrative and social control systems. The organizational systems, including the organizational structure, are of particular importance, as they constitute the framework in which the administrative and social control systems operate.

THE FORMAL ORGANIZATION STRUCTURE

The formal organization structure specifies among other things the hierarchical authority of the foreign subsidiaries. The six MNCs investigated have all chosen some form of divisionalized structure with decentralized profit responsibility. Seen from the point of view of corporate headquarters, the MNCs have decided to let the foreign entities report either to the corporate level and the chief executive officer (CEO), or to divisional headquarters and the president of the division. Figure 4:1 illustrates schematically the formal structure of each of the MNCs.

Company I,II,IV



Company III,V,VI

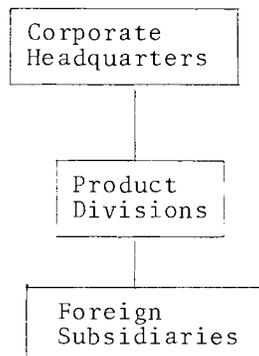


Figure 4:1. Formal organization structure of the MNCs

In companies I, II and IV the foreign subsidiaries report to the corporate level and the CEO, while in companies III, V and VI they report to a product division, which in turn reports to corporate headquarters. Formally, all subsidiaries report through a local board of directors.

The basic structure in the first group of MNCs is similar to the mother-daughter structure with the important exception that they also have product divisions. Nevertheless, we will call this form a mother-daughter structure, as the subsidiaries report to the corporate level. The structure of the second group of MNCs corresponds to an organization with global product divisions (cf. Chapter 2).

In all six MNCs the product divisions and the foreign subsidiaries operate as profit centers. In the second group of MNCs, i.e. companies III, V and VI, the product divisions consolidate the operations of several foreign entities. In these three MNCs the divisions act as headquarters for their own subsidiaries.

The number of divisions varies among the MNCs. Company I has eleven highly specialized manufacturing divisions, operating mainly as manufacturing units, and two divisions responsible for systems selling and turn-key installations. Company II has five product divisions, company III has four, company IV has three, and companies V and VI have ten and nine product divisions respectively. The larger number of divisions in the last two firms is a reflection of their greater product diversity.

The primary responsibilities and functions performed by the product divisions and the foreign subsidiaries differ between the two groups of MNCs, but are similar within each group, i.e. companies I, II and IV, and companies III, V and VI. Table 4:1 describes the primary functions and responsibilities of each entity.

A major difference between the two groups of firms is that the subsidiaries in companies I, II and IV have the

Table 4:1. Primary functions of product divisions and subsidiaries

Organizational units and their functions		Company					
		I	II	III	IV	V	VI
PRODUCT DIVISIONS	Primary functions and responsibilities ¹	Manufacturing, some product development and product design	Product development, marketing, product design	R&D, product design, marketing, manufacturing	R&D, product design, marketing, manufacturing	R&D, product design, marketing, manufacturing	R&D, product design, marketing, manufacturing
	Services performed to subsidiaries	Technical assistance, product specifications and the sale of goods (source of supply)	Technical assistance, product specifications, marketing support, sale of goods	Technical assistance, marketing, accounting and control, sale of goods	Technical assistance, marketing, sale of goods	Technical assistance, marketing, accounting and control, sale of goods	Technical assistance, marketing, accounting and control, sale of goods
	Major forms of compensation from subsidiaries	Royalties and payment for goods	Royalties and payment for goods	Royalties, payment for goods, dividends and fees	Royalties and payment for goods	Royalties, payment for goods, dividends and fees	Royalties, payment for goods, and fees
FOREIGN SUBSIDIARIES	Primary functions and responsibilities ²	Sales and marketing of all the divisions' products	Sales and marketing of all the divisions' products	Sales and marketing of the division's products	Sales and marketing of all the divisions' products	Sales and marketing of the division's products	Sales and marketing of the division's products
	Determination of compensation to product divisions	Royalties determined by corporate level. Transfer prices according to standard price lists determined partly by the corporate level	Royalties as in company I. Prices after negotiations with division	Prices determined by the division. Corporate guidelines for royalties, fees and dividends	Royalties as in company I. Prices after negotiations with division	Prices determined by the division. Corporate guidelines for royalties, fees and dividends	Prices determined by the division. Corporate guidelines for royalties and fees

1 Each division is responsible for a specific range of products.

2 Subsidiaries may also have their own manufacturing facilities.

ultimate responsibility for the marketing and sales of all the various product lines of the MNC in their host country. Each division shares the sales and marketing capacity of the foreign entities with the other divisions. The subsidiaries themselves tend to adopt a mixture of functional and divisionalized structures which correspond to the various product lines of the divisions. Smaller subsidiaries are for the most part functionally organized. On the contrary, in companies III, V and VI the foreign subsidiaries are responsible for marketing and sales only for the product range of the division they belong to.

Some other differences are worth noting too. In company I the divisions are not responsible for marketing support and coordination. This function is performed by the corporate marketing staff. In company II the product divisions are not responsible for manufacturing. Instead, manufacturing is concentrated in a separate department which supplies all divisions. The department includes all major production facilities in Sweden and has more than 15 000 employees. The department operates as a cost center and reports to the corporate CEO. It also handles all transfers of manufacturing technology to the foreign subsidiaries.

The product divisions in all MNCs give the foreign subsidiaries technical assistance. Due to the nature of the technology and products of companies I and II, this service is relatively more important than in the other MNCs. As these companies sell complex customized systems and turn-key installations, technical support on product design, documentation and quotations is important. As already noted, the other MNCs sell primarily standardized products. Product design and documentation are then less complicated.

The size of the divisional staffs varies in the six firms. In companies I, II, III and IV the staff has between 100 and 400 professionals, while in companies V and VI there

are usually less than 50, and in some cases even fewer than 10 professionals. The largest division of company II employs approximately 300 people in purely staff positions and more than 1500 persons in different line positions.

Two questions of interest arise. Why have the MNCs chosen different structures? How does the structure affect both the needs for and the modes of coordination and control of the foreign entities?

In Chapter 3 the environmental and strategic context of the MNCs investigated were extensively described. The characteristics of this context, together with earlier research findings (cf. Chapter 2) would lead us to assume that all six MNCs would adopt a structure with global product divisions or a matrix. Companies I, II and IV have not done so, in spite of factors which include intense oligopolistic competition, interdependence among foreign markets, substantial economies of scale and a need for global standardization of products and procedures.

Companies III, V and VI, on the contrary, have adopted a structure which is very similar to what has been prescribed in earlier research. A comparison of the two groups of firms may therefore give further insight into both the evolution of organization structures in MNCs and the impact of formal structure on the headquarter-subsidary relationships.

Three factors in particular explain the choice of organizational structure in companies I, II and IV: (1) organizational histories and traditions, (2) the characteristics of the technology, industry and customer structure, and (3) cost considerations related to the degree of product diversity.

The *organizational histories* of these three MNCs have followed a similar pattern. In the early stage of their internationalization process, the foreign subsidiaries were

autonomous and managed by expatriate managers. Coordination and control of the foreign entities were performed primarily through personal contacts and relationships between subsidiary presidents and the chief executive officer. This pattern was similar to that in many other European MNCs and led to the evolution of mother-daughter structures (cf. Franko, 1976).

Within these MNCs there evolved a tradition of independent, often strong-willed subsidiary presidents. These became accustomed to reporting directly to the CEO and to having great freedom to decide about matters concerning the subsidiaries.

Due to these traditions, which are still prevalent in the MNCs, it is difficult to change the hierarchical status of the subsidiary presidents - this in spite of the evolution of specialized product divisions with the same hierarchical position as the foreign subsidiaries. It is likely that organizational traditions of this kind, which also involve personal consideration for the subsidiary presidents, explain the persistence in European MNCs of a structure in which the subsidiaries report directly to the CEO.

As an obvious consequence of this structure, there is a very large span of control for the corporate chief executive officer. The CEO of company II, for example, has more than sixty subsidiaries formally reporting to him.

Contrary to what has been postulated by Franko (1976), the three MNCs have not abandoned this structure in spite of extensive international operations, intensive competition and economic integration in Europe. But it is also clear that company traditions of the kind described above can be changed over time. Company III is a case in point; with a history similar to that of companies I, II and IV, it nevertheless adopted a structure with global product divisions. Therefore, history alone cannot fully explain why the structure of these MNCs has not changed as prescribed by earlier research.

A second explanation may be found in the nature of the *competitive conditions, product characteristics and customer structure*, particularly of companies I and II but also, to a lesser extent, of company IV. As detailed in Chapter 3, these MNCs have a strong need to coordinate product strategies at a global level. This need is due to competitive pressures, interdependence among foreign markets and the necessity to realize economies of scale in manufacturing and R&D in order to maintain cost competitiveness. This alone would lead us to expect that a structure with global product divisions would be most suitable.

Simultaneously, however, the nature of the customer structure - particularly in companies I and II which have important public customers - creates demands for local adaptation and flexibility. It becomes necessary to differentiate the marketing approach to suit local conditions. These requirements alone would make an organization with area divisions most suitable (cf. Chapter 2).

It is likely that the persistence of the mother-daughter structure in companies I, II and IV is explained by a wish to simultaneously reconcile both a product and area perspective. By not incorporating the foreign subsidiaries into the product divisions, a geographically oriented perspective is preserved. The global product perspective of the divisions is balanced by the local perspective of the subsidiaries. As both formally have the same position in the hierarchy, the product divisions have to be responsive to subsidiary considerations about local market conditions. Correspondingly, the subsidiaries are dependent on the product divisions as a source of supply, and for technical assistance and R&D.

The fact that the product divisions have to share the sales and marketing capacity of the foreign entities tends to increase the bargaining power of the subsidiaries. An allocation can be made by the subsidiaries among the products

of different divisions. This makes it important for the divisions to take local conditions into consideration.

A third explanation to the organization structure in companies I, II and IV is *cost considerations associated with their degree of diversity*. With low product diversity or with a related product portfolio like company IV, it is possible to let a single foreign subsidiary handle the marketing and sales of all product lines. Thereby administration and distribution costs are reduced compared to if each division had its own subsidiary in each foreign market. The high degree of product relatedness in company IV has prevented this MNC to adopt a structure with global product divisions, as it would require more than one subsidiary in each market.

Consequently, the fact that companies I, II and IV have adopted a structure which is a mixture between a divisionalized and a mother-daughter structure is explained by several partly interrelated factors rather than any single factor advanced by earlier research. The "stage-theory" of structural development in MNCs is particularly inappropriate. According to this theory, product diversity is a major determinant of divisionalized global structure. In spite of low product diversity, the three MNCs have created divisions but limited their responsibilities. And they have not chosen to adopt formal matrix structures in spite of strong need for a dual organization focus.

Company III is of particular interest, as this company in spite of a similar context has a structure different from companies I, II and IV and very much contrary to what has been postulated in earlier research. In spite of low product diversity and high product relatedness, this MNC has chosen a structure with global product divisions.

Two other factors seem to explain the structure of company III. First, there may be less need to preserve a dual or multiple organizational focus than in the other three MNCs. The mature and oligopolistic market for company III's

major products requires a global product focus. This need is reinforced by low product differentiation, high interdependence and the firm's role as a global price leader. To ensure a coherent marketing approach to implement competitive strategy and to control pricing policies in different countries, an integration of the foreign entities into global product divisions has been considered most appropriate.

A second explanation for company III's structure can be found in the size and the low product diversity of this firm. As already noted, one product group accounts for approximately 70 per cent of total sales. It is also this product which is most international. The MNC has chosen to split this product group into two separate divisions. One of the two divisions is responsible for the major manufacturing facilities and the large European markets. The other is responsible for small and medium sized foreign manufacturing subsidiaries, all sales companies and joint ventures.

It is likely that the low product diversity of the firm, coupled with the size of the major product group, led to the divisionalization. Through reorganization into divisions, more manageable units were created. Operating responsibilities could also be decentralized, thereby improving market responsiveness. Before the divisionalization, the firm had a mother-daughter structure.

The evolution of the formal structure of companies V and VI is explained primarily by their degree of product diversity. These two firms divisionalized their operations in order to decentralize operating responsibilities. The low degree of relatedness among different product groups facilitated the creation of global product divisions with their own foreign subsidiaries (cf. Stopford and Wells, 1972). The high degree of product diversity reduces the benefits of having only one subsidiary in each local market.

The differences in the organization structures of the MNCs indicate that several factors influence the evolution

of formal structure. Neither product diversity, history, size nor various forms of interdependence fully explain structural form.

THE ROLE OF CORPORATE AND DIVISIONAL HEADQUARTERS

Earlier research has shown that highly diversified firms tend to have smaller corporate offices than firms which are less diversified. The major reason advanced for this difference has been that the diversified firms tend to decentralize operating responsibilities to their divisions. Thereby reducing the need of functional staff expertise in the corporate office (cf. Chapter 2).

The environmental and strategic context of the MNCs would lead us to assume that the number of staff functions represented at the corporate level would be fewer in companies V and VI compared to the other four MNCs. Earlier research would also lead us to assume that company III, which is fully divisionalized, would have fewer corporate functions than companies I, II and IV. By fully divisionalized MNCs I mean that the foreign subsidiaries formally report to a division instead of the corporate level. In these cases the divisions would assume many staff responsibilities of the corporate level.

Earlier research on the role of the corporate office in divisionalized multi-business firms has focused on the nature and the size of the staff functions represented only at the corporate level and equated this with decentralization of operating responsibilities (cf. Berg, 1971). The fact that the corporate office is smaller or larger in different types of divisionalized firms may be a matter of choice and of minor importance. It does not necessarily tell us anything about decentralization of operating responsibilities if corporate staff functions are just transferred to the divisional level. In order to understand the functions and responsibilities performed by "headquarters" versus its subunits, one has to analyze the characteristics of both the corporate and the divisional levels.

Distinguishing between the two levels promotes understanding not only about the decentralization of responsibilities to various levels but also regarding the overall staff services and functions at headquarters. Table 4:2 shows the results for the six MNCs.

Table 4:2. Staff services and functions performed in relation to subsidiaries by corporate and divisional headquarters

Staff Services provided to Foreign Subsidiaries	Corporate Level in Company						Divisional Level ¹ in Company					
	I	II	III	IV	V	VI	I	II	III	IV	V	VI
Marketing	x	x	-	x	-	-	-	x	x	x	x	x
Accounting and Control	x	x	x	x	-	-	-	-	x	-	x	x
Finance	x	x	x	x	x	x	-	-	-	-	-	-
Production	x	x	-	-	-	-	x	-	x	x	x	x
Research and Development	x	x	x	x	-	-	x	x	x	x	x ²	x
Public Relations	x	x	x	x	x	x	-	-	-	-	-	-
Personnel Administration	x	x	x	x	x	-	-	-	-	x ²	x ²	-
Legal	x	x	x	x	x	x	-	-	x	-	-	-

Key: x = the service is given to the subsidiaries
 - = no such service is given to the subsidiaries

¹ The markings for the divisional level do not concern all product divisions. Variations may exist among divisions. In company I the markings are representative for the largest divisions. In company II the markings concern the largest division. In company III they concern the next largest but most international division. In company IV they concern all divisions. In companies V and VI they concern the two most international divisions.

² This service is provided to the foreign subsidiaries but not by a formally organized staff function.

Several interesting observations can be made from Table 4:2. The product divisions of the fully divisionalized MNCs, i.e. companies III, V and VI, perform more staff functions in relation to the foreign subsidiaries than do the divisions

of the other three MNCs. This is most evident in the areas of marketing, accounting and control. Formal reporting relationships explain the differences here.

The formal structure also affects the corporate office. In companies I, II and IV, the corporate office performs more staff functions than in the fully divisionalized MNCs. What is interesting to note is that in the first group of MNCs, some staff functions are performed at both the corporate and divisional levels. This is notable in the areas of marketing, production and R&D. Company III, although fully divisionalized, also exhibits some duplication of staff functions. Companies V and VI have fewer staff functions at both corporate and divisional levels than any of the other four MNCs. This corresponds to observations made in earlier research.

But why does this seemingly wasteful doubling of efforts take place in companies I-IV? One possible explanation is that the firms may be overstaffed any single point of time. Another possible explanation would be the differences in organizational size. Company IV is, however, smaller than company III, e.g. in terms of sales and approximately of equal size as companies V and VI. Still, company IV exhibits the same pattern with more staff functions as the larger MNCs.

Better explanations can probably be found by analyzing the situational context of the MNCs. Companies I-IV face complex forms of interdependence in R&D, production and marketing (cf. Chapter 3). It is likely that the management of this interdependence, as well as the related needs for coordination and control, requires overall more specialized and larger staff units compared to companies V and VI.

The importance of this factor is supported by the observations above regarding differences in the size of the divisional staffs of the six MNCs. The same differences

can be observed in the size of the corporate staff. Company VI, for example, has a corporate staff of 20 professionals, while company IV has a staff of over 200 professionals, i.e. excluding clerical staff. The corporate office staffs at companies I and II are even larger.

Another explanation for the larger number of corporate staff functions in companies I, II and IV compared to companies III, V and VI can be found in the design of the formal organization. With the subsidiaries not incorporated into the product division, while at the same time there is strong interdependence between them and the divisions, the likelihood of intra-organizational conflicts is increased.

Under these circumstances corporate integration and resolution of conflicts between the subunits, to the benefit of the corporation as a whole, become more important. Corporate staff functions are one device among others, which performs the task of integration and conflict resolution. As a consequence, it is likely that these functions have to overlap with similar functions in the subunits. Characteristically, the duplication of functions is also most prevalent in the areas of marketing, production and R&D, i.e. where there is the greatest interdependence between the divisions and subsidiaries.

In the areas of marketing and R&D for, for example, the market value of the services given by the subunits to one another is difficult to determine. In the absence of a price mechanism, it is more likely that the corporate level has to mediate between the two in order to promote cooperation and to reach a mutual understanding on a fair price level. This situation does not occur so easily in the fully divisionalized firms, since the subsidiaries and divisions form one single subunit in relation to the corporate level. As the most interdependent tasks in general are grouped within one division, there is less need, with this structure, to divide and allocate the benefits of internal transactions between divisions and subsidiaries.

STANDARDIZATION OF POLICIES AND PROCEDURES

In Chapter 2 we noted the importance of standardization of procedures as an organizational instrument for coordination and control. Standardization reduces the need for supervision, as it prescribes desired behavior and guides managerial actions. Standardized instructions, policy statements, manuals, etc are also a tool for downward communication in the hierarchy and a part of the intra-organizational communication system (Bacharach and Aiken, 1977).

Standardized policies and procedures are formal control instruments as they tend to be in written form, inflexible and in general valid for all subsidiaries concerned. By studying the number and content of such policies and procedures, an insight can therefore also be gained about the degree of formalization of headquarter-subsidiary relationships in the MNCs.

It was found that the relative importance of standardization varied among the MNCs. Only in one area - accounting and finance - do all six MNCs have standardized corporate manuals similar for all foreign entities. In other areas - e.g. manufacturing, marketing sales and planning - only companies I, III, IV and V make more frequent use of written manuals and operating instructions. Companies II and VI have virtually no instruments of this kind, which indicates a lower degree of formalization in these two MNCs. The six MNCs have been ranked in Table 4:3 as to the overall degree of standardization of policies and procedures.

The relative extent of standardized procedures has shortcomings as a measure of the importance of this control instrument. A complementary measure is the extent to which standardized policies and procedures are in fact used by the foreign subsidiaries. Managers in the investigated subsidiaries were therefore asked (1) to what extent they relied on *written policies* from headquarters to guide their

Table 4:3. Relative degree of standardization of policies and procedures

Company Characteristics	Company					
	I	II	III	IV	V	VI
Ranking of standardization	3	5	1	4	2	6

Key: 1 = highest rank
6 = lowest rank

decision making, and (2) to what extent they relied on *manuals and procedures* to guide their decision making. The respondents were asked to answer the questions by using a five-grade scale from "A very great deal" (1) to "Very little or not at all" (5). Table 4:4 shows the average values of the responses.

Table 4:4. Subsidiary reliance on written policies and procedures provided by headquarters (average values)

Company Characteristics	Company					
	I	II	III	IV	V	VI
Subsidiary reliance on written policies	3.8	4.6	3.0	3.7	2.6	5.0
Subsidiary reliance on manuals and procedures	4.2	4.2	2.0	3.2	4.6	4.3

Key: 1 = "A very great deal"
5 = "Very little or not at all"

The results in Table 4:4 shows that subsidiary use of written policies varied among the MNCs with, as we would expect from ranking above, the highest average usage in companies III and V, and the lowest in companies II and VI.

It can be questioned to what extent *written policies* can be continuously up-dated and operational in guiding subsidiary decision making in the heterogeneous and changing environments facing the MNCs. In fact, company II has an explicit policy not to formalize or write down any corporate policies, claiming that these are not flexible enough to accommodate to continuously changing situations. Company I, on the other hand, has a long tradition of trying to formalize and write down corporate policies and instructions. Companies III and V exhibit similar formality in this sense.

The subsidiary reliance on *manuals and procedures* as a guide in decision making gives a different picture than the first dimension. As can be seen from Table 4:4, only companies III and IV can be considered relatively successful in getting the subsidiaries to use these tools. The subsidiaries of company V do not rely on manuals very much even though manuals exist. In the other MNCs the reliance on manuals and procedures is low, which indicates that it may be difficult to use these tools to guide decision-making processes and to fit them to the specific needs and situation of each subsidiary.

The differences observed may be the result of differences in growth stages and product maturity among the MNCs. Company III has mature products. According to Scott (1971), this would tend to increase the reliance on more formalized procedures. As company III is also the price leader in a highly oligopolistic industry, this would also tend to increase the need for standardized market conduct (cf. Chapter 3). This factor does not explain, however, the difference observed between companies V and VI, as both operate in a similar context; it indicates rather that other forces are also at work.

It is likely that corporate traditions explain some of the differences observed among the firms. It can be noted

that in spite of the differences between companies II and IV in size, environmental and strategic context, none relies very much on formal instruments of this kind. Correspondingly, in spite of the strong similarities in the context of companies I and II, their reliance on standardized policies and procedures varies considerably.

Although the overall reliance on standardized and formalized manuals and procedures is low, such tools are not necessarily inadequate in guiding subsidiary behavior. A senior corporate executive in company I commented for example:

We don't enforce our instructions and procedures as long as the subsidiaries perform well and operate within our written and unwritten rules. They know, however, that if anything goes wrong we may well hit them with the instructions. This keeps them on their toes.

The comment illustrates that manuals and procedures can be and are used in different ways. Company III states the following purpose for their manuals:

The manuals describe how to act in those situations in which all companies are expected to act in a uniform way. If the group has a policy for dealing with certain financial or administrative questions, you will also find that policy in the manual. Even when no binding group instructions for policies exist, we have included check lists and suggestions on administrative procedures. They are there to make your work easier and to give you some ideas on how to solve certain problems. You are free not to use these guidelines but in that case we expect that you will have introduced something better in their place

The purposes stated above show the importance of standardized manuals and procedures in company III, not only to coordinate and control subsidiary activities but also as an educational tool.

The variations among subsidiaries as to how useful and important they considered manuals, policies, and procedures provided by headquarters, were found to be determined largely by the perceptions of the subsidiary managers, and the specific situational needs of the entities.

COMMITTEES AND TASK FORCES IN THE MNCs

Earlier research has shown that committees and task forces can be used as a complement to formal structure, for coordination and control and as devices to achieve a dual organizational focus (cf. Chapter 2).

It is of interest to explore the extent to which the MNCs make use of task forces and intra-organizational committees to coordinate the activities of the foreign subsidiaries. Committees, task forces, boards of directors and advisory councils with members from headquarters and the subsidiaries allow for a reconciliation of business strategies and operational activities (cf. Hedlund, 1980; Leksell and Lindgren, 1980). Boards and committees are also instruments for intra-organizational communication and exchange of information.

It was found that none of the MNCs makes much use of committees and task forces. Only in companies I, III and VI do subsidiary managers participate in any committees at the corporate level. In these three cases the committees are concerned only with product development and production planning. In none of the MNCs are subsidiary managers members of policy-making boards or committees at the corporate level.

It is difficult to explain why this device is not used more extensively, particularly in companies I and II with their high interdependence and need for a dual organizational focus. It may be a matter of choice on the part of headquarter management not to use formalized instruments of this kind. It may also be a reflection of a corporate

strategy to restrict subsidiary managers' responsibilities to matters that concern only their host country and market territory.

While subsidiary managers do not participate much in headquarter boards, committees and task forces, headquarter executives may be members of committees at the subsidiary level. Committees and boards at the subsidiary level can clearly not have the same scope and global perspective as their counterparts at the corporate level. Still, the same integrative functions can probably be equally well performed at the subsidiary level. The major difference is then that integration only takes place on a bilateral basis, between headquarters and individual subsidiaries.

THE SUBSIDIARY BOARD OF DIRECTORS

An important formalized organizational instrument for coordination and control at the subsidiary level is the subsidiary board of directors. Among the traditional roles of the board are: to determine company policies and objectives, to select the chief executive officer and to monitor and control the operations and management of the firm (Copeland and Towl, 1947; Koontz, 1967). Due to the importance, at least formally, of the subsidiary board, care was taken to analyze its role in the MNCs under study.

Through the research, three major roles of the subsidiary board were identified; these have been designated the external, internal and legal roles. Each role implies a specific set of board responsibilities, which are more or less actively fulfilled and pursued (for an extensive discussion on the board of directors in foreign subsidiaries, see Leksell and Lindgren, 1980).

The external role implies that the primary function of the board is to act as a link between the foreign subsidiary and its host environment. This linkage can take two forms,

one being passive and the other active in terms of decision making. In the first form of the external role, the primary function of the board is to assist subsidiary management and to a certain extent corporate headquarters with advice and information about economic, legal, social, and political affairs in the host country. In the latter form the role of the board is to assist, as well as to a certain extent manage, the MNCs' external relations with the host country.

The external relations function was well illustrated by the president of a subsidiary in company I, located in a less developed country:

My board is extremely important and valuable to me. The chairman (an outside director) has several times introduced me to government officials and assisted me in negotiations with major customers... Mr X (an outside director) is on the executive committee of the most important trade organization. He protects our interests in that organization.

Typically, the external role of the board was found to be performed more in between than during the meetings. Several subsidiary managers stressed the importance of being able to consult and use individual board members on a continuing basis.

The internal roles are primarily focused on the linkages and relationships between the foreign subsidiary and the MNC as a whole. Two major types of internal roles were identified.

The first internal role implies that the primary purpose of the board is to *control and monitor* the management and the operations of the foreign subsidiary. When assuming this role in a pure form, the board is generally passive in relation to major decisions. Instead, it becomes a forum for exchange of information and communication about the subsidiary's situation, the local environment and corporate policies. A corporate executive vice president in company IV, who served on some 30 subsidiary boards, commented:

Although I know through informal contacts and the financial reporting system what's happening in our foreign subsidiaries, the presence on the board is very valuable for me. By visiting the subsidiaries and attending the board meetings, I can make a first hand assessment of our people and our local operations, as well as get more information about what is happening in the country in question.

It was found that the role of controlling and monitoring the subsidiary is often performed in conjunction with one or both of the external roles. By being present at the board meeting, headquarter executives learn about local conditions and are able to inform local outside directors, i.e. directors not employed by the MNC in any managerial position, and subsidiary management about corporate strategy and policies. The presence of headquarter executives is considered important for increasing the motivation of the outside directors.

The second form of internal role implies that the primary purpose of the local board is to *coordinate and integrate* the subsidiary with the MNC as a whole. This role is different from the previous one, by being more active and decision-oriented. In this case the board is used as an instrument to coordinate and integrate the subsidiary with the activities of product divisions and other subsidiaries. The board becomes an integrative device.

A situation found in a subsidiary in company I can illustrate this function of the board:

As described above, company I has product divisions responsible for global production and R&D. The product division sells through foreign subsidiaries which are independent profit centers reporting directly to group management.

Subsidiary X, located in a less developed country, demanded permission to start local production in view of government pressures and trade barriers. This was in conflict with the needs of a major product division as it

would lead to lower capacity utilization, and it was strongly resisted by divisional management. Severe intra-organizational conflicts emerged, customer service programs were inhibited, and the subsidiary's market share started to decline.

The conflict was partly solved by appointing the divisional president to the subsidiary board. Representation on the board forced the division to take the strategic needs of the subsidiary into account, as well as improve its understanding of the foreign environment. Through the board discussions, subsidiary management gained a better understanding of the economics and strategy of the product division. A compromise solution was found, and technology and production skills were successfully transferred from the division to the subsidiary.

In this particular case the subsidiary board was used to solve intra-organizational conflicts and to improve internal communication. The internal role may also imply that subsidiary management uses the board as a resource in the process of formulating local strategy, and to receive input and advice from corporate and divisional managers acting as directors. At the same time, corporate management can "translate" corporate strategy for subsidiary management and integrate global and local strategies.

The legal role of the subsidiary board implies that the board has no function or authority other than to fulfill legal formalities. Some of the MNCs investigated had deliberately chosen this role for their subsidiary boards.

Table 4:5 summarizes the role of the board in the MNCs investigated. The different roles have been ranked according to their relative importance, (1) denoting the most important role, and (3) the least important. Only the roles which were actually performed have been taken into consideration.

Table 4:5. The role of the subsidiary board

Roles Company	EXTERNAL ROLE	INTERNAL ROLES		LEGAL ROLE
		Control & Monitoring	Coordination & Integration	
I	2	1	3	-
II	1	2	3	-
III	2	3	-	1
IV	2	1	3	-
V	2	-	-	1
VI	-	-	-	1

Key: 1 = most important role
3 = least important role

It can be noted from the table that in each of the MNCs, except VI, the board performs different roles with different emphasis.

Companies I, II, III and IV in particular have a need for global integration and coordination because of organizational interdependence and competitive pressures, as well as a need for local adaptation and flexibility.

It could be expected that under these circumstances, the subsidiary board would tend to perform primarily the internal role. But, in spite of this, the local boards in the four companies I, II, III and IV do not actively perform the role of integration and coordination (cf. Table 4:5). The explanation is twofold.

First, the market and customer structure is such that a high degree of local responsiveness and flexibility is required. Under these conditions the MNCs need advice about local conditions, and assistance with external relations. This in turn may lead to external roles' being assigned to the local board.

The MNCs that emphasize the external roles of the board tend to structure the board around local outside directors who are well connected in the country of the respective subsidiary. Only outsiders familiar with and influential in the local environment can fulfill the external role. The internal roles tend to require a board composed primarily of inside directors.

When performing the internal role, the board needs information about corporate policies and procedures, and about the management and allocation of internal resources. Part of this information is not always deemed suitable to disclose the outside directors who are residents of the host country. Some of these items may conflict with host country ambitions and government objectives. If such information is given to local directors, conflicts of interest may arise.

On the other hand, if the board has a very active external relations role and accordingly includes locally important outside directors, there is another potential conflict: if these directors feel that they have no influence at all on the more strategic decisions of the subsidiary, they may ignore their board assignment. Whether or not they feel a part of the strategic decision process depends partly on what information they acquire about the subsidiary and the MNC as a whole.

Second, although integration is needed, the local board is not always a necessary instrument for providing it. Instead, the research indicates that this need may be fulfilled by other coordination and control systems. The need for communication, for example, can be met by frequent visits and informal contacts among headquarters, divisions, and the subsidiaries. Also, well developed formal control systems and corporate policies reduce the need for the board to perform more active internal roles.

As will be described in the next section, companies I and IV have less developed informal communication channels than, for example, company II. Intra-organizational conflicts between subsidiaries and product divisions in these two companies are resolved through a small number of executive vice presidents and liaison officers. This task is performed at the local board level, which explains why the role of the local board is different in companies I and IV compared to II. These differences probably also account for the stronger role of the board in controlling and monitoring subsidiary operations in companies I and IV (see Table 4:5).

Company III, on the other hand, has highly centralized production planning and is also forced by competition to centrally control the sales prices on different foreign markets (cf. Chapter 3). The local board is not considered well suited to be a part of this system. Instead, the company has standardized policies regarding marketing and production, as well as an elaborate planning and information system. These administrative systems seem to reduce the need for the internal roles of the local board. Company III also has global product divisions instead of a mother-daughter structure, thus further facilitating coordination of the foreign subsidiaries.

Companies V and VI are different in other respects. These companies have generally chosen to let the local board fulfill only legal requirements. There are several reasons for this.

First, companies V and VI are operating in industries which are much less subject to host government involvement and pressures. As a result, the external roles of the local board are not so important.

Second, these companies (V and VI) have global product divisions, each with its own foreign subsidiaries. As the subsidiaries operate fairly independently in their own en-

vironments, the simultaneous needs for global integration and local adaptation are much less than in the other four MNCs. Less integration and coordination are then required; therefore, there is also less justification for any internal roles to be performed by the local board.

This conclusion is partly confirmed by the statements of company managers. One executive vice president in company VI commented as follows:

We do not use the board in our subsidiaries as we primarily focus on other channels for controlling their operations ... It (the board) should be passive. We only have it for legal reasons.

The difference between the subsidiary boards in the two groups of MNCs is also evident from comparison of the medium number of board meetings per year, as is shown in Table 4:6.

Table 4:6. Median number of board meetings per year

Interdependent oligopolies (Companies I, II, III, IV)	4 meetings/year (Range 2-6) ¹
Conglomerates (Companies V, VI)	1 meeting/year (Range 1-9) ²

¹ The range in number of meetings is primarily due to the fact that the number of board meetings is higher in joint ventures than in wholly owned subsidiaries (see Leksell and Lindgren, 1980).

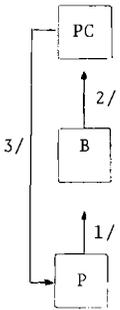
² The high range includes the number of board meetings in a joint venture in company V; it is not included in the median number as it is not representative for the company as a whole, but is due to specific legal factors in the host country.

If there is no need for either external or internal roles, it is likely that the subsidiary board will only perform the passive legal one. In these cases the internal role of control and monitoring is fulfilled by other control systems, and/or by other means, such as frequent informal communication and personal contacts.

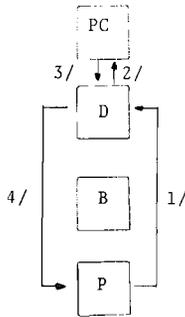
The responsibility of the subsidiary board

The actual responsibility of the local board was found to be related to the role the board performed in the different companies. Some differences in responsibilities were found, however, when actual decision processes were studied in more detail. An actual decision process regarding a large subsidiary investment in companies I, II and V illustrates the typical board responsibilities and the differences among the MNCs. These are described in Figure 4:2.

Case 1 - Company I

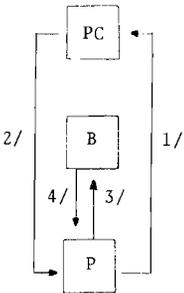


Case 3 - Company V

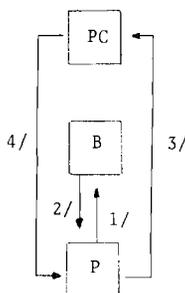


Case 2 - Company II

Situation I



Situation II



Key: PC = Parent Company
 D = Division
 B = Board of Directors in Subsidiary
 P = Subsidiary President

Figure 4:2. Various forms of subsidiary board involvement in large investment decisions

In Case 1 - company I, the initiative (1) is taken by the president of the subsidiary and decided upon by the local board; the investment proposal, if approved, is remitted (2) to the parent company for approval of the investment (3).

In Case 2 - company II, the investment proposal in situation 1 is sent directly to the parent company from the president (1) of the subsidiary for approval. The parent company decision is communicated back to the president (2) who then has to have the subsidiary board formally approve the proposal (3-4). This formal decision is of course very seldom contrary to the parent company decision.

Situation 2 describes the way company II handles investment proposals in some of their subsidiaries in which outside directors have a say in the matter before the parent company finally makes a decision.

In Case 3 - company V, the board is passive. The investment decision process can thus be illustrated as follows: the proposal is sent from the subsidiary president to the divisional president (1), who either approves it directly or has the issue remitted to the parent company or its board (2-3). The decision is then communicated back to the subsidiary (4). The board of the subsidiary is not involved at all.

There is an interesting difference between company I and company II. In company I the board of the subsidiary actually decides first. It shows that the concept of responsibility varies among the companies and that one must clearly distinguish between cases where the responsibility of the board is merely formal and in reality the entire responsibility lies with headquarters and those where the board actually has responsibility for the decision-making process.

COMMUNICATION BETWEEN HEADQUARTERS AND SUBSIDIARIES

The purpose of this section is to describe and analyze the importance of different forms of intra-organizational communication and communication patterns. A distinction has been made between informal and formal communication flows. The formal flows are in general structured as to channels, timing and format. The financial reporting system is a typical example of a formalized communication system used to structure headquarter-subsidiary information flows. This type of formal systems will be discussed in the next chapter.

For more continuous exchange of information, as well as necessary "dialogues" in strategic and operative matters, more informal tools are generally used. Non-routine coordination and control are not easily managed through standardized instruments, for they require information which cannot be prespecified and prestructured.

It is likely that among other things, the environmental diversity of MNCs creates considerable variations in information needs among different subunits. Chorafas (1969) has noted the difficulties of establishing channels and procedures in MNCs, which meet the information needs of both headquarters and subsidiaries. Informal communication becomes, as a consequence, an important tool and a complement to more formalized procedures. Informal communication can be managed through several means, e.g. personal visits, letters and telephone conversations. In each MNC the importance of these instruments has been investigated.

Personal visits and informal contacts between headquarters and subsidiary

Table 4:7 shows the average number of times corporate and divisional executives visited the foreign subsidiaries during one year, as well as the predominant hierarchical position of the visitors.

Table 4:7. Average annual number of visits to the subsidiary by corporate and divisional executives and the hierarchical position of visitors

Company Character- istic	Company					
	I	II	III	IV	V	VI
Average annual number of personal visits ^{1/}	4.5	5.0	4.7	4.3	3.2	7.0
Predominant hierarchical position of visitors	1,2,3	1,2,3	3,4,5	1,3	4,5	1,4

Key: 1 = Senior corporate executives (CEO, executive vice presidents)

2 = Corporate controllers

3 = Corporate and divisional staff managers

4 = Divisional presidents

5 = Divisional controllers

^{1/} The variance is large, ranging between 3-6. It is explained by subsidiary specific factors such as subsidiary performance and the relative importance of the entity and host country for the MNC as a whole.

As shown in Table 4:7, companies I-IV do not exhibit any major differences in the average number of visits to the subsidiaries by headquarter personnel. It is likely that the complex forms of interdependence in these firms explain the similarities. It also explains why these have a higher frequency of visits than has company V.

It is interesting to note the difference in frequency between companies V and VI in spite of the contextual and structural similarities between these two firms. We would expect that with their similarities in context, these two firms would have the same need for informal integrative effort.

The difference may be a result of a conscious decision on part of company VI regarding system design. As already noted, this company does not rely extensively on formalized organizational instruments. Instead, the coordination needs are solved through more personalized and informal means, e.g. through visits.

A second explanation may be found in the more limited international experience of company VI as compared to company V. It is possible that the latter firm, being more experienced, would be more inclined to formalize headquarter-subsidary communication and rely less on informal communication.

It is also interesting to note the difference in the hierarchical position of the visitors. In companies I-IV the position of the visitors is highly mixed, ranging from the CEO to corporate and divisional staff personnel. In the two conglomerates, companies V and VI, and to a certain extent also company III, the visitors are generally the president and other senior divisional executives.

Greater coordination needs, for example because of interdependence and technology, is probably an explanation for the differences observed. The two highly diversified firms with their independent subsidiaries need less coordination, since their businesses are little related to each other.

The design of the formal structure is another explanation. There is less need for visits by corporate executives in companies III, V and VI, which are fully divisionalized. In companies I, II and IV, corporate executives have to coordinate and reconcile the activities of both the divisions and the subsidiaries.

The importance of personal visits for the management of the headquarter-subsidary relationships is further reflected in the purpose of the visits. Senior corporate and

divisional executives stressed the significance of visiting the foreign entities themselves in order to become acquainted with subsidiary operations and host country conditions, and to make an assessment of the subsidiary and its management. In all companies these executives generally preferred to visit the subsidiary, instead of having subsidiary managers visit them. The advantages of seeing subsidiary operations "on the spot" were often cited. In companies I, II and IV, senior corporate executives made a habit of trying to visit each subsidiary at least once a year. These visits were also used to increase the motivation of subsidiary managers by creating a feeling that they were not "forgotten", as well as to keep a certain pressure on them.

A comment by a senior corporate executive in company I regarding his presence at subsidiary board meetings illustrates some of the purposes of the subsidiary visits.

The primary purpose for me being there is to get a feeling for what's going on. You feel it in the air if everything is OK. Secondly, I keep local management on their toes by being present, asking questions, and checking that they keep in line with our corporate policies.

Besides visits by senior executives, the subsidiaries are regularly visited by headquarter staff in functional areas such as finance, manufacturing, and marketing. Visits by senior executives usually were either ad hoc, e.g. just to be informed about the entity, or regularly scheduled, for example in connection with subsidiary board meetings. Visits by other headquarter staff or line executives were found to be mostly problem- and task-oriented. The number of visits in both directions tends to increase if subsidiary profits decline, and if major investment projects are discussed and implemented. Clearly, the need for integration and supervision then increases.

Subsidiary managers also visit headquarters. It is primarily subsidiary presidents who make these visits, although companies I-IV are exceptions. In these firms sub-

subsidiary marketing and manufacturing managers visited headquarters regularly. On the other hand, subsidiary financial managers make almost no visits. In companies II and IV, for example, subsidiary financial managers visited headquarters only once every third year, on the average, whereas production and marketing managers conducted two to three visits annually. This pattern is probably due to the fact that standardized and formal communication channels and procedures are most developed in the area of finance and accounting, and there is consequently less need for informal communication and contacts.

Besides personal visits, the total frequency of personal contacts between subsidiary presidents and headquarters during one month was investigated. Personal contacts include all forms of communication by means such as the telephone, letters, and telex. Table 4:8 shows the results.

Table 4:8. Personal contacts between subsidiary president and headquarters during one month

Company Char- acter- istic	Company					
	I	II	III	IV	V	VI
Average contact frequency	Every week	Every week	Every other day to every week	Every week	Every month	Every week to every other week

As can be seen from the table, the personal contact frequency was found to be highest in company III, equally high in companies I, II and IV, and lowest in companies V and VI. It was not uncommon either that subsidiary managers in companies I, II and IV had personal contact "every day" or "every other day". None of the subsidiary presidents had less frequent contact than once a month. The variation

found in the frequency in personal contacts between the MNCs seems to be dependent on very much the same factors as described above.

Communication patterns in the MNCs

It was observed in this research that horizontal and diagonal communication flows play an important role for the management of the headquarter-subsidary relationships (cf. Chapter 2).

Diagonal communication refers to communication between corporate managers, divisional managers, and subsidiary managers at different hierarchical levels. Horizontal communication is defined here as communication between individuals on the same hierarchical levels but in different organizational units, e.g. between subsidiaries and between subsidiary staff and headquarter staff managers. Both forms of communication patterns occur outside the ones prescribed by the formal organization and hierarchy.

The research indicates that it is particularly important for subsidiary managers to know whom to communicate with at corporate headquarters and in product divisions in order to speed-up decision processes. Subsidiary managers, particularly in companies I, II and IV, stressed the importance of "knowing their way around". It is likely that the organizational structure of these three firms tended to increase this need. Subsidiary managers in the fully divisionalized MNCs did not place so much stress on the importance of knowing whom to communicate with at headquarters. In companies I, II and IV, a long tenure with the organization is often necessary to learn whom to communicate with and how to speed-up communication routes.

Headquarter executives with experience as subsidiary managers were often favorably recognized by the subsidiaries as better equipped to understand subsidiary problems, and as communication with them was considered easier. To have worked at headquarters was often cited as important

by subsidiary managers in companies I and II, particularly in the area of production, as it facilitated the transfer of production skills. Brandt and Hulbert (1975) have also noted that interpersonal relationships play a key role in the effectiveness of headquarter-subsidary communications.

The importance for the subsidiaries of having communication links at different hierarchical levels in order to influence intra-organizational transactions is well illustrated by the situation in a joint venture which company I owns on a fifty/fifty basis.

The joint venture needed some new products for its local market, a highly industrialized country. The premises for the formation of the joint venture were that the Swedish partner would supply R&D competence, and the other partner the marketing and distribution know-how. However, the R&D efforts of the Swedish parent company were not considered to be well adapted to customer demands in the local market. The joint venture complained that it was not able to influence the R&D process, and that it was not informed about new R&D projects. The lack of information was interpreted by the president of the joint venture, a local national, as a sign that the Swedish headquarters did not trust them and was afraid that technology would "leak" out of the venture. In response, the managers in the joint venture made a habit of visiting the corporate R&D facilities when they were at headquarters in Sweden. In this manner they had become acquainted with several individuals over the years through whom they had obtained information about on-going projects. These personal contacts were also considered to give them a certain limited opportunity to influence the R&D process.

Several other examples were found, particularly in companies I and II, where subsidiary managers in the areas of manufacturing and marketing stressed the importance of having personal contacts with corporate and divisional managers to solve problems, and to receive information.

Companies I, III and IV have organized special international departments in each of the major product divisions to facilitate the transfer of technology and manufacturing skills to the subsidiaries. These departments have as their sole responsibility the handling of product information and technology transfer between the divisions and the foreign subsidiaries. Company II has corporate departments performing similar functions, while companies V and VI do not, probably because of their different manufacturing strategies and less complex technologies (cf. Chapter 3).

Companies I-IV also have individuals in various staff functions at corporate headquarters acting as communication links between corporate headquarter product divisions and subsidiaries. These individuals have different hierarchical positions but one feature in common: they are all well acquainted with subsidiary operations and problems. Company I, for example, has appointed "liaison officers" among their senior corporate vice presidents. Each liaison officer is responsible for a number of subsidiaries and is expected to facilitate communications and problem-solving of a strategic and operative character among the corporate level, the divisions and the foreign entities. In companies V and VI, the two conglomerates, most communication goes directly between the subsidiary and divisional presidents.

In Table 4:9 the MNCs have been ranked as to the number of communication links between the subsidiaries and headquarters. The number of communication links is defined as the number of corporate and divisional executives with whom subsidiary managers have regular contact. The ranking is based on interviews with subsidiary managers.

Company II has the largest number of links, while companies V and VI have the lowest ranks. A subsidiary manager in company II may have up to six regular links; a subsidiary in company V has two. The ranking seems to be dependent on several factors.

Table 4:9. Ranking as to number of headquarter-subsidary communication links

Company Charac- teristics	I	II	III	IV	V	VI
Ranking as to number of com- munication links	3	1	2	4	6	5

Key: 1 = highest ranking
6 = lowest ranking

First, the ranking is clearly related to the specific communication needs of the MNC. These needs, in turn, are a function of the needs to coordinate and control subsidiary operations. Second, it can be expected that the frequency of communication and the number of communication links are also dependent on the degree of formalization of organizational structure and procedures. With more formalized structure and procedures, the frequency of informal communication and the number of links can be expected to be lower. Company III, which is among the most formalized, has a high ranking nevertheless.

Galbraith (1974), among others, has argued that increased environmental uncertainty creates higher demands on the capability of the organization to process information in order to achieve a given level of performance. The information needs can be reduced by creating self-contained units. The creation of independent divisions with global product responsibilities, as in companies III, V and VI, would accordingly reduce information needs and communication links. The high ranking of company III does not conform to this pattern, however. The explanation may be that this MNC has chosen to establish self-contained divisions,

but that marketing considerations and intra-divisional trade flows also require lateral relationships and many communication links in order to facilitate joint decision making and coordination.

Communication between subsidiaries

Lateral relationships and horizontal communication may also exist among the foreign subsidiaries themselves. It was found that the frequency of communication among the subsidiaries was fairly low in all six MNCs.

Company I has the highest degree of intersubsidiary communication, while company V has the lowest. The degree of communication was measured as the frequency of personal contacts between the subsidiary president and managers in other subsidiaries. Some of the other companies, particularly company II, try deliberately to restrict the extent of communication among the subsidiaries. The effect may be to facilitate headquarter control by making it easier to differentiate policies and procedures to fit the particular business situation of any subsidiary. The relationship can then be managed on an individual, bilateral basis. A typical area where a differentiation may be important is in the pricing of intra-company transactions. With restricted communication there is less price-level comparison among subsidiaries.

SUMMARY

The purpose of this chapter was to describe and analyze the design and functioning of the organizational systems which are used by the MNC to coordinate and control the foreign subsidiaries.

The organizational systems consist of several inter-related subsystems. The following subsystems or instruments were analyzed: (1) the formal organization structure in the

MNCs and the rationale behind the structure, (2) the functions and size of corporate and divisional headquarters, (3) standardization of policies and procedures, (4) committees and task forces in the MNCs, (5) the role and responsibilities of the subsidiary board of directors, and (6) communication and communication patterns between headquarters and the subsidiaries.

The design and functioning of each of these subsystems, as well as how they are used to manage the headquarter-subsidiary relationships, were described. The differences observed in the design and functioning of the subsystems in the firms under study were analyzed. Several explanations were given and conclusions drawn as to how the environmental and strategic context of the firms, as well as the formal structure, influence the design and functioning of the various organizational coordination and control instruments.

5 Administrative Systems for the Management of Headquarter—Subsidiary Relationships

The purpose of this chapter is to describe and analyze the design and functioning of the administrative systems for coordination and control of the foreign subsidiaries.

The administrative systems operate within the framework of the organization structure. A major difference between the administrative and organizational systems is that the former is more flexible. The administrative systems can be more easily developed than the organization structure, and changed without necessarily affecting the formal structure and other organizational systems.

In this research attention has been focused on the budget and planning systems in the MNC and the financial reporting system. In subsequent sections the following dimensions of these administrative systems are analyzed: (1) the design of the international budget and planning system including the time horizon, standardization and content of subsidiary budgets and plans; (2) the budget and goal setting process; (3) the functions of and purpose of the annual subsidiary budgets; (4) the functional reporting system, its design, the magnitude of reporting by the subsidiaries, and degree of standardization of the reporting system; (5) subsidiary attitudes towards the reporting system, and (6) headquarter use of subsidiary reports. The chapter ends with a short summary.

Care has been taken to describe and analyze both the design and the functioning of the administrative systems. To understand the functioning of the systems and their importance for the management of the relationships, we have analyzed how the systems are used by both subsidiaries and headquarters.

THE DESIGN OF THE INTERNATIONAL BUDGET AND PLANNING SYSTEM

The budget and planning system are major instruments for corporate and divisional headquarters to coordinate and control the activities of the foreign subsidiaries. As such, the system strongly influences the relationship between headquarter and the subsidiaries. Although the design of the system was fairly similar in the MNCs, major differences were found as to how the system was used by headquarter executives and how it subsequently influenced relationships with the subsidiaries.

The design of an international budget and planning system is difficult, as clearly no single system can be expected to fulfill all objectives nor fit all companies equally well. Instead, the design of a formal planning system has to take into consideration the specific characteristics of the company's situation, its size and diversity and its competitive environment (see also Bergstrand, mimeo, 1978, and Lorange & Vancil, 1977, pp. 139-151).

Although no single system design is universally valid, all formal budget and planning systems have to address some key design issues (Anthony & Dearden, 1976). The objective of the design is to achieve as good a fit as possible with the objectives and characteristics of the company and its environment (Vancil & Lorange, 1977, op. cit.).

A distinction has been made between budgets and plans. The first item refers to operating and short-term profit budgets including investment, cash, personnel and other

similar budgets, while plans are defined herein as formalized long-range plans with more than a one-year horizon. Attention has been focused on the budgets and plans prepared by the foreign subsidiaries.

Time horizon of subsidiary budgets and plans

The time horizon of budgets and plans for the foreign entities were found to be closely linked to the accounting periods and consolidation principles in the MNCs. Also, the specific functions of the system and the degree of stability in the MNC's operations and environment affect the choice of time horizon.

If the primary purpose of the system is to coordinate and integrate international operations, a high degree of accuracy and realism is important. This generally requires a shorter planning cycle than if the primary purpose is to scan the corporate environment and get an assessment of future environmental and competitive forces. The choice of time horizon is also a function of the effort and resources devoted to the system (Ackoff, 1970).

All the MNCs investigated have the same time horizon for the budgets, while the time horizons of the long-range plans were found to be more varied. Table 5:1 shows the time horizon of the budget and plans together with how often these are prepared by the foreign entities.

Although the MNCs have different organization structures and operating characteristics, the similarity in the time horizon of the budget is due to the fact that all firms have one year as their accounting period. The length of the accounting period also determines the time horizon of most of the other budgets in use besides the profit budgets, e.g. production budgets, investment budgets.

The similarities among the MNCs as to the time horizon of the long-range plans are more difficult to explain. It

Table 5:1. Time horizon and preparation frequency of subsidiary budgets and plans

Company Charac- teristics	I	II	III	IV	V	VI
<i>Budget</i>						
Time horizon	1 year	1 year	1 year	1 year	1 year	1 year
Preparation frequency	Annually	Annually	Annually	Annually	Annually	Annually
<i>Long range plans</i>						
Time horizon	2 years ¹	2 years ¹	3 years ²	4 years	3 years	3 years ²
Preparation frequency	Annually	Annually	Annually	Every second year	Annually	Annually

1 A 5-year forecast for orders received is also made annually.

2 The first year of the plan is generally the annual budget.

As a result, the time horizon can also be said to cover two years.

could be hypothesized that the differences in structure, competition and environmental conditions facing the MNCs would require different time horizons. Given the environmental diversity facing the firms, as well as their organizational and operative complexity, the time horizon found can be considered to be short. It should be noted that the long-range plans are not used as major instruments for coordination and control in the MNCs under study.

Three interrelated factors seem to explain this. First, in all MNCs it was felt that longer time horizons rendered such low accuracy that the plans would have very little operational value. Higher uncertainty tends to reduce the planning horizon.

Secondly, all firms had a low organizational commitment towards long-range planning. This was due partly to what was considered a low degree of accuracy in the plans,

but also to difficulties in linking the long-range plans to the reward systems and to managerial actions. The low level of commitment to planning among corporate, divisional and subsidiary executives tended to result in a reduction of resources and efforts devoted to planning. An obvious reduction of the effort is to reduce the time horizon.

The third and last reason for the short planning horizon and the overall low reliance on planning was that all MNCs had problems in designing and implementing efficient planning procedures for the foreign entities.

Some of these problems have been observed in previous studies. In a survey of 600 companies, Steiner (1971) found that a lack of involvement by top management in planning tended to discredit the whole process among other managers. Steiner also found that a failure to develop company goals suitable as a basis for formulating long-range plans accounted for many planning failures (cf. also Ringbakk, 1971; Channon and Jalland, 1979).

Many of the problems in implementing adequate planning procedures for the foreign subsidiaries are illustrated by the comments of corporate planning executives.

In company I the executive responsible for planning in the foreign subsidiaries noted:

We have tried four times to implement corporate-wide strategic planning procedures and failed every time ... Our present long-range plan is mostly a trend extrapolation of the subsidiaries' annual budgets ... Our strategic planning is now conducted by a few individuals at the corporate staff, and they are not very successful either.

A divisional controller in company III responsible for the subsidiaries' plans commented as follows:

We originally had a five-year plan. We then reduced it to a three-year time horizon in order to improve the reliability. Now we are considering not letting the subsidiaries do any long-range planning at all. It's often a waste of time.

As a consequence, many of the planning needs in the MNCs are solved by other means. Clearly, what Steiner has called "intuitive-anticipatory" planning exists in all firms (Steiner, 1969 and 1971). This type of planning is usually the work of a few key individuals and seldom results in any written set of plans. It is more based on the experience and judgment of the individuals involved.

Some of the MNCs also had separate corporate planning departments. These departments prepare corporate plans, and the involvement of the foreign subsidiaries is not considered necessary. That is the case, for example, in companies I, III and IV. Considerable strategic planning efforts are therefore conducted outside the formalized long-range planning system.

Standardization of the budget and planning system

The formal budget and planning systems are highly standardized in all MNCs and based on manuals which lay out procedures and time schedules to be followed. It was observed that the high degree of standardization does not always allow for adaptation to subsidiary-specific characteristics; this may in turn reduce the adequacy of the budgets and plans.

In the three MNCs which are organized into global product divisions, i.e. companies III, V and VI, the divisions had some freedom in deciding the design of their own budget and planning systems. The research data indicate that the firms with global product divisions also tended to differentiate other administrative systems, more so than did the MNCs with mother-daughter structures, i.e. companies I, II and IV. It is likely that the latter organizational structure reduces the ability and/or propensity to differentiate the administrative systems for subsidiary-specific factors.

Lorange (1976) argues that the integrative purpose of planning is facilitated in MNCs which are organized into global product divisions. In contrast, planning systems in MNCs with area divisions would be more adaptive to environmental diversity. The findings from this research support Lorange's hypothesis, but indicate also that both the integrative and adaptive tasks of planning are more difficult to achieve in mother-daughter structures than in the other two divisionalized structures mentioned above.

The lower differentiation of the administrative systems in companies I, II and IV is partly due to the fact that these MNCs have standardized their charts of accounts and their accounting definitions on a corporate-wide basis. Thus, within these individual MNCs, all subsidiaries employ the same accounting system.

Companies V and VI in particular, but also company III, have opted for a lower degree of corporate-wide standardization. As a matter of fact, company VI has a policy of not standardizing the chart of accounts of the different divisions and requires only that some accounting definitions be used by all entities. Two factors explain this. First, a differentiation of the administrative systems is facilitated, as the subsidiaries report to a global product division. Each system can more easily and in a less costly manner be tailored to the specific needs of that division. There may then be standardization within each division.

Secondly, it is likely that the lower degree of system standardization in companies V and VI in particular, also depends on their higher product diversity compared to the other MNCs. No single system fits all diverse product lines equally well.

Magnitude and content of subsidiary budgets and plans

Table 5:2 summarizes the content and size of the subsidiaries' budgets and plans. The content of the system is classified according to whether it is financially or more qualitatively oriented, i.e. on the amount of verbal analysis and judgments. The content is also described in terms of the dimensions in the budgets and plans which are emphasized by corporate and divisional headquarters. The size is measured as the number of planning documents submitted by the subsidiaries.

It can be noted that all firms have a similar orientation in subsidiary budgets, while they differ as to the emphasis given to different items. All require budgeted income statements, balance sheets, cash budgets, etc.

The differences in emphasis in the budgets and plans are probably explained by the different product-markets of the firms. Companies I and II are primarily involved in selling turn-key projects on a tender basis. The completion of such projects may range over several years. In such a context orders received and gross margins are important to plan capital needs and production capacity.

Companies III and IV are operating in a competitive environment with more mature and price-sensitive products. Sales volume and market share are given high priority because of considerable economies of scale in production, and the existence of centralized capital-intensive production facilities.

The two conglomerates, companies V and VI, emphasize subsidiary and divisional financial performance. A major role for both the corporate and divisional level in these firms is to allocate resources among their diversified businesses. We can argue that information about return on investment, cash flow and net profit is important in such a context.

Table 5:2. Content and size of international budget and planning systems

Company						
Characteristics	I	II	III	IV	V	VI
Primary orientation of budgets	Quantitative - Financial	Quantitative - Financial	Quantitative - Financial	Quantitative - Financial	Quantitative - Financial	Quantitative - Financial
Primary orientation of long-range plans	Quantitative - Financial	Quantitative - Financial	Quantitative - Financial	Qualitative - Judgmental	Qualitative - Judgmental	Quantitative - Financial
Emphasis in budgets	Orders received, gross and net profit, cost efficiency, return on investment	Orders received, cost efficiency, production plans, and gross profit	Sales, market share, price development, production efficiency, net profit	Market share, sales, net profit, capital turnover, gross profit	Net profit, cash flow, capital turnover, return on investment	Net profit, cash flow, capital turnover, return on investment
Emphasis in plans	Orders received, net profit, cost efficiency	Orders received, production plans, cost efficiency and gross profit	Sales, market share, price development, competitive situation, net profit	Sales, market share, business outlook, net profit, capital turnover	Net profit, business outlook, cash flow	Net profit, business outlook, cash flow
Approximate number of budget and planning documents	14	20	30	40	53	7

The number of planning documents provides an insight into the overall budget and planning requirements imposed upon the subsidiaries. Information categories may, however, overlap one another. It is interesting to note from Table 5:2 that the magnitude of planning and budget requirements varies considerably among the MNCs. Companies

I, IV and V use 14, 40 and 53 documents respectively, while company VI makes use of 7. It seems that neither organizational size, product diversity or interdependence can explain the differences observed among the MNCs in this respect.

Although companies V and VI face a very similar environmental and strategic context, they differ greatly in the magnitude of their planning efforts.

The differences are probably due in part to management's choice of planning instruments. Company V, for example, relies on formalized planning methods, while company VI uses more personalized ones. This is also reflected in the more intensive informal communication that occurs in company VI compared to company V (cf. Chapter 4).

In spite of high product diversity, company VI does not have any elaborate planning system. It can be argued that planning in a highly diversified firm would be an important tool for corporate management to inform itself about the different product-market activities of the operating units. While the design of the planning system in company V supports this hypothesis, the situation in company VI does not. For one thing there are other instruments for information exchange; for another, it is possible that the quantitative and financial content of the plans makes them ineffective instruments for dialogues on strategic matters between headquarters and the subsidiaries.

THE BUDGET AND GOAL SETTING PROCESS

The design of the budget and planning system gives only a static picture of the system and its influence on headquarter-subsidiary relationships. If the influence of the system is to be more fully understood, the budget and goal setting process has to be described and analyzed.

As noted above, the subsidiaries' annual budgets are much more important for the management of the relationships than are the long-range plans. While the budget preparation generally involves frequent discussions between the entities, the long-range plans are much less closely coordinated and followed-up by headquarters. For this reason, the discussion below is focused on the annual budget and budget process.

In the description of the budget and goal setting process, a distinction has been made, where applicable, among corporate headquarters, product divisions, and the foreign subsidiaries. This distinction is relevant in companies III, V and VI where the foreign subsidiaries report to their respective product divisions instead of directly to corporate headquarters as in companies I, II and IV.

In all MNCs the budget process is initiated by corporate headquarters, which provides time schedules for the budget work to the foreign subsidiaries. In some but not all MNCs, corporate and divisional headquarters also state goals and assumptions for the subsidiaries' budget preparation. Table 5:3 summarizes the key characteristics of the budget process.

As can be noted from the table, companies III, IV and V follow a top-down approach; i.e. the subsidiaries are given budget goals or guidelines for their budget preparation. Companies I, II and VI, on the other hand, follow a bottom-up approach where no budget goals or guidelines are given to the subsidiaries. In company VI corporate management has explicitly stated that no budget assumptions should be given to the divisions, the reason being the high diversity in product markets. As a consequence, most divisions have also chosen a bottom-up approach for their subsidiaries and for their internal budget preparation.

Table 5:3. Characteristics of the budget process in the MNCs

Company						
Characteristics	I	II	III	IV	V	VI
Budget approach and corporate budget goals	Bottom-up. No goals except corporate-wide profitability objectives	Bottom-up. No goals except corporate-wide profitability objectives	Mixed top-down and bottom-up. Corporate goals specific to divisions	Top-down. Subsidiary specific goals	Top-down. Corporate goals specific to divisions	Bottom-up. Corporate-wide profitability objectives
Primary corporate purposes of the budget (ranked)	Instrument for coordination and resource allocation	Instrument for coordination and resource evaluation	Instrument for performance evaluation and coordination	Instrument for coordination and performance evaluation	Instrument for performance evaluation, communication and resource allocation	Instrument for performance evaluation and communication
Average number of iterations during budget process	2	1-2	3	2-3	2-3	2
Number of annual budget revisions	None or only if large changes occur	Two	No revisions as a matter of corporate policy	None or only if large changes occur	No revision as a matter of corporate policy	No revision as a matter of corporate policy
Frequency of head-quarter rejection of subsidiary budgets	Seldom	Very seldom	Often	Seldom	Often	Seldom

In companies I, II and VI only general and fixed corporate-wide profitability requirements guide the operating units in their budget preparation, e.g. fixed return on investment objectives for the MNC as a whole.

It is likely that the choice of approach is partly a matter of corporate traditions, but is also related to the primary purposes of the budget process. Those companies which emphasize the role of the budget as an instrument for performance evaluation tended to adopt a top-down approach with specified budget assumptions. In these cases, i.e. companies III, IV and V, divisional and corporate managements use the budget to enhance motivation in the subsidiaries by trying to achieve a balance between realistic and unattainable performance goals. This also explains why the subsidiaries in these firms are rarely allowed to make budget revisions (see Table 5:3). A revision makes it harder to use the budget as a fixed subsidiary commitment against which performance can be evaluated.

The companies with extensive intra-organizational transactions and needs to coordinate global production plans and other transfers tended to emphasize the budget as a tool for coordination. These companies, i.e. primarily companies I and II, were more inclined to adopt a bottom-up approach as well as to accept budget revisions. Realism in budgeted figures is necessary or valuable for coordination purposes.

As can be noted from Table 5:3, the firms which have adopted a top-down approach tended also to have somewhat higher number of iterations during the budget process. It is likely that more iterations are necessary with a top-down approach in order to reconcile budget goals established by headquarters with the subsidiary perceptions as to the possibilities of achieving desired performance levels.

It was observed that the different purposes of the budget and budget process tend to conflict. These conflicts

will be discussed more in detail in the proceeding section as they largely explain differences in the budget process among the firms.

While the annual budget is an important tool for the management of headquarter-subsidiary relationship, the long-range plan is not. In all MNCs except companies IV and V, the long-range plan is mostly a trend projection of the annual budget. Partly this was due to strong links between the two systems. The long-range plan, for example, is prepared by the same individuals who prepare the annual budget, and made on the same type of documents. The time schedule for preparation and submission is generally the same. The structurally tight links between the budget and planning cycle tend to make the latter very similar to the budget. It is likely that with the environmental uncertainty facing the MNCs and the annual requirement of preparing financial statements, the annual budget will receive considerably more attention than the long-range plan. The relatively short time horizon of the plans supports this conclusion (cf. Shank, et al., 1973).

In companies IV and V, which put more emphasis on the long-range plan, the linkages were found to be less strong. The plans have a longer time horizon, preparation frequency differs, and the content is more qualitative and judgmental than in the budgets (see Table 5:2). The planning process in these companies is considered important means to create "thinking processes" about the future and as a tool to educate subsidiary managers.

THE FUNCTIONS OF SUBSIDIARY ANNUAL BUDGETS

As noted above, the MNCs used the budget to fulfill different functions. The purpose of this section is to make some comparisons of how the budget system was used in the six MNCs, and to provide further explanations for the differences observed. In Table 5:4 the MNCs have been ranked

relative to each other regarding the importance of their budget systems as instruments for: (a) allocation of investment funds among subsidiaries; (b) planning and coordination of global production capacity and supplies; (c) evaluation of subsidiary performance; and (d) communication and information exchange between subsidiaries, product divisions and corporate headquarters. This list of functions clearly does not exhaust all possible purposes of or functions performed by the annual budget and budget processes in the subsidiaries, but includes those purposes which were found to be the most important during the research.

Table 5:4. Comparisons of headquarter purposes with the subsidiaries' annual budgets

The importance of the budget as a tool for:	COMPANY				
	Very low importance	Low	Medium	High	Very high importance
Allocations for investment funds	II	VI	IV, III	I, V	
Planning and coordination of subsidiary operations	VI	V		III	I, II, IV
Evaluation of subsidiary performance		II	I	IV	III, V, VI
Headquarter-subsidiary communication and information exchange		II	I, IV	III	V, VI

As described in Table 5:3, headquarter executives placed varying emphasis on the different purposes of the subsidiaries' budgets. The identification of different functions was arrived at by asking headquarter and subsidiary executives how they used and perceived the budget

and budget process. The final ranking among the firms was made by the researcher.

The annual budget was not particularly important as a tool for *allocation of investment funds* in any of the MNCs except companies I and V. All companies have formal procedures for evaluating and approving investment decisions in the foreign subsidiaries, e.g. discounted cash flow techniques. More or less informal discussions between headquarters and the subsidiaries about investments usually precede the submission of the budget. These discussions enable subsidiary management to consult headquarters about the feasibility and acceptance level of various proposals and to receive at least an informal approval or rejection of the investment plans (cf. Aharoni, 1966; Bower, 1970, Chapter 4). The investment budget thereby becomes very much a confirmation of decisions already taken. Once approved, the budget gives the subsidiary the total allocation of funds, which can be quite freely spent on different projects.

Some differences were found in the investment decision process depending on whether the investment concerned a replacement or expansion investment. Expansion investments are more closely controlled, as are investments in buildings, in contrast to replacement investments.

In companies I, II, IV, and to a lesser extent also in company III, the budget is important for *planning and coordination purposes*. This is due to the fact that production facilities are centralized in a few large plants serving global market needs. The subsidiaries are largely net recipients of goods produced in the plants, and their budgets are used for production and capacity planning. As the plants are capital-intensive in all four industries and production lead times are long, it becomes important that budgeted figures be as accurate as possible. Companies V and VI are much less dependent in this respect,

and consequently production planning and coordination are also less important as a purpose of the budget.

A distinction should be made between strategic and operative coordination. The coordination activities referred to above are primarily of an operative character. Strategic coordination by means of budgets and plans is rare. As noted above, in all of the investigated firms, the subsidiaries' formal long-range plans are also of minor importance.

In spite of relative differences among the MNCs investigated (see Table 5:4), all of them use the budget as the primary tool for *evaluating subsidiary performance*. Several factors seem to explain this. Environmental diversity makes it difficult for headquarters to formulate relevant standards to be used as a basis for evaluation. It is difficult for headquarters to remain continuously familiar with the unique and changing business and financial risks facing each subsidiary. As a result, it also becomes difficult to provide relevant performance standards without the involvement of the local entities themselves. The budget and budget process ensure this involvement and make it possible to take specific subsidiary and host country factors into consideration. By requesting subsidiary management to prepare a budget, headquarters obtains a performance standard based on the subsidiary's own expectations. Subsidiary-specific factors are automatically taken into consideration by the subsidiaries.

In all MNCs the budget is accompanied by financial ratios and other measures of performance, e.g. return on investment, gross margin and inventory turnover. These measures are used to ensure a certain comparability among the subsidiaries. These measures were found, however, to be of considerably less importance than the budget to evaluate subsidiary performance.

In spite of the general importance of the budget for evaluation purposes, we can observe from Table 5:4 that the relative importance of the budget in this respect varies among the MNCs. In companies III, V and VI this purpose is the most important one. The position of companies I, II and IV in the table implies that these three firms on the whole place less emphasis on performance evaluation than do the other MNCs. Why is it so?

The research seems to indicate that both the degree of interdependence and the design of the formal organization structure explain the situation. More complex forms of interdependence, resulting for example from large internal flows of goods and oligopolistic industry structures, make it more difficult to assess the absolute contribution of each subunit to the firm as a whole. Cost allocations must usually be made, and transfer pricing principles may also affect the results of the subsidiaries. It can also be noted from Table 5:4 that in companies I, II and IV, the budget is an important tool for coordination of subsidiary operations; i.e. the budget is used to manage interdependence. As will be detailed in next section, there is a conflict between the two budget functions of coordination and performance evaluation.

Interdependence does not, however, fully explain the differences between the firms. Company III faces complex forms of interdependence but still strongly emphasizes performance evaluation in its use of the budget. The design of the formal organization structure, with global product divisions, may explain this discrepancy.

Everything else being equal, MNCs with global product divisions have more homogeneous product portfolios than do the other MNCs. It is possible that divisional management may thereby be better informed about subsidiary operations. In the other MNCs the subsidiaries sell the products of all divisions.

Similarly, corporate management in companies III, V and VI has smaller spans of control, with a limited number of divisions reporting to them. This makes it easier to keep informed about divisional affairs. It is likely that knowledge about operations in the subunits facilitates a top-down budget process and subsequent use of the budget for performance evaluation purposes.

Company VI contradicts this conclusion, however, as a bottom-up approach is followed in this firm. The design of the budget process in company VI may, however, be the result of managerial choice and reliance on less formal instruments. It can also be noted in Table 5:4 that in company VI the budget is an important tool for communication and exchange of information. It is possible that in intensive informal budget discussions, budget goals are specified, which allow headquarters later to use the budget for performance-evaluation purposes.

One important conclusion that can be drawn from the discussion above is that the fully divisionalized firms, i.e. companies III, V and VI, have tighter budget control over the subsidiaries than do the MNCs with partly divisionalized structures, i.e. with the subsidiaries reporting directly to corporate management. This is contrary to the hypothesis that divisionalization tends to promote decentralization (cf. Chapter 2). It can be hypothesized instead that divisionalization makes it possible to decentralize operating responsibilities, while simultaneously allowing tighter control. Divisionalization may facilitate the spread of information by reducing spans of control and interdependence, thereby making it possible for corporate management to enforce tighter controls and to formulate specific performance targets.

It is of interest to note the role of the system as a device for *exchanging information within the organization* and in particular for spreading information at headquarters

about subsidiary environments and local business situations. There is apparently no consistent pattern among the firms in this respect. It could be hypothesized that the more information collected through the system, i.e. the larger the system, the more important the system would be for this purpose. No such pattern can be observed, however. In companies III, V and VI the system is important for this purpose; still, company VI is among those which collect the least information (cf. Table 5:2).

It can also be hypothesized that companies V and VI need more standardized and formal channels of information due to the diversity of their operations. The more diverse the product/market scope, the more difficult it is for headquarters to assimilate knowledge about the foreign entities (cf. Berg, 1965, 1969), and the greater would be the need for easily comparable information about the subsidiaries. Such a clear relationship was not found, however, as company VI is the least standardized and has a small system. It is therefore likely that to fully understand the collection and processing of information, one must take into account the totality of communication among the different organizational levels.

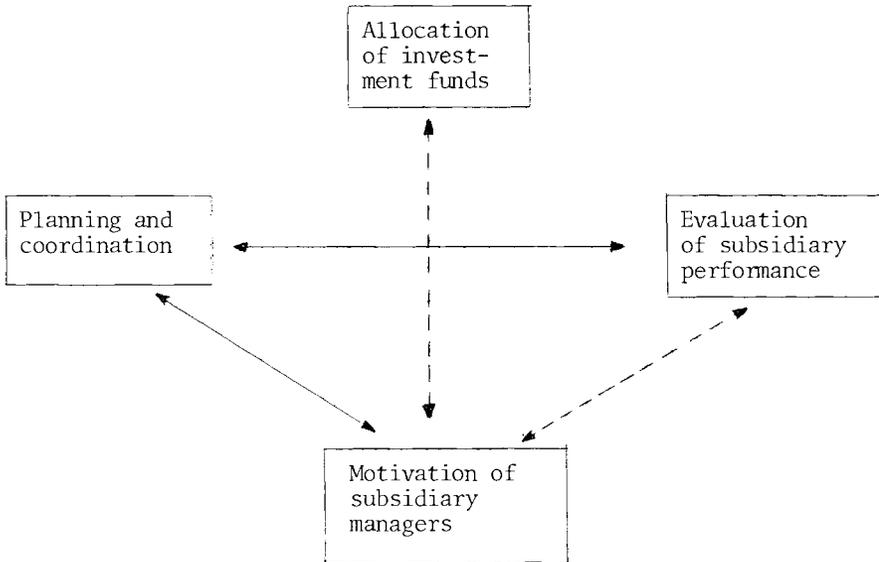
Those companies which emphasize the purpose of performance evaluation tend to have a higher degree of information exchange. This is probably due to the fact that negotiations are usually more frequent when goals and budget proposals are discussed. In support of such a conclusion, it can be noted from Table 5:4 that a certain relationship was found between these two dimensions of the budget system, as well as the characteristics of the budget process (cf. Table 5:3). This may also explain the importance of the budget system in company VI, in spite of relatively low standardization and budget requirements.

The conflicting roles of the budget

As mentioned above, some of the purposes of the budget tend to conflict with others. For example, the purpose of the budget as an instrument to motivate and to evaluate subsidiary management tends to conflict with the purposes of planning and coordination and resource allocation. The first function may require pressures for higher, perhaps virtually unattainable, levels of subsidiary performance, while fulfillment of the latter functions requires "realism" in the budgeted figures. If the distribution of rewards is based on differences between actual and budgeted results, a conflict may also arise between the motivation of subsidiary managers and the purposes of planning and coordination, performance evaluation and resource allocation. For maximum rewards, subsidiary managers would try to under-budget as much as possible. It can be hypothesized that conflicts among purposes explain why the different MNCs have stressed some functions more than others. It has also been observed by others that the budget process involves conflicting objectives, as well as political elements in the discussions between the budgetee and his superior (Hofstede, 1967; Barrett and Fraser, 1977).

Figure 5:1 depicts the major conflicting purposes of the subsidiary budget.

It was observed that foreign subsidiaries tended to "play" the role which best fitted the budget functions they perceived to be most important for headquarters. Perceptions about the importance of different budget functions were also found to vary among subsidiaries within an MNC, as well as between subsidiary managers and corporate and divisional executives. This fact further complicates the corporate task of using the budget and the budget process for any specific purpose.



Key: ————— Major conflicts
 - - - - - Minor conflicts

Figure 5:1. The major conflicting purpose of the subsidiary budgets

The situation in company III illustrates the situation well:

The primary corporate purpose of the budget in company II is to coordinate and plan capacity utilization and supply on a global basis. The product divisions use the subsidiaries' budgets to prepare their own budgets. These in turn are used as a fixed commitment for purchasing from the centralized production department in Sweden, a cost center in charge of all production (cf. Chapter 4).

The subsidiaries tend to over-budget their sales figures at the beginning of the year. By doing so they achieve a good budgeted result, as well as an assurance

that they will receive products (shorter delivery times) in case global demand is higher than current production capacity. The product divisions know this and reduce the budgeted figures to achieve "realism", and to avoid increases in inventories in case demand does not materialize. Finally, the production department makes its own "adjustments" on the basis of its knowledge about the historical budget behavior of the product divisions.

Towards the middle and the end of the year, the subsidiaries revise the budget to avoid the negative effect of excessive initial budget figures on the evaluation of their performance. The revisions take place twice a year to ensure appropriate production capacity planning (see Table 5:3). The revisions tend to reduce subsidiary commitment to the budget. Corporate executives judge subsidiary performance primarily on differences between the revised budget and/or actual figures for the budget year with the actual figures for the previous year. This manner of evaluation further reduces the value of the budget as a fixed subsidiary commitment, and thereby as a tool for performance evaluation.

Similar conflicting roles were found to exist in companies I and IV, i.e. those companies with mother-daughter structures, while conflicting purposes were less evident in companies V and VI. One probable explanation is that the degree of organizational interdependence is higher in the former category. The foreign subsidiaries in companies V and VI have less intra-company transactions and operate more independently within their host country. It is thus easier for corporate management to emphasize specific budget purposes, such as performance evaluation. In the other firms the budget serves several purposes, which clearly increases the likelihood of conflicts among different purposes.

THE FINANCIAL REPORTING SYSTEM

The purpose of this section is to describe and analyze the design and primary functions of the financial reporting system in MNCs. The discussion is focused on the role of the system for the management of the headquarter-subsidary relationships (cf. Leksell, 1980).

The financial reporting system is an integral part of the international information and control system of the MNC. The flow of information provided by the financial reporting system is used for several purposes and is simultaneously part of the measurement, communication, evaluation and decision-making processes of the firm.

A distinction has been made herein between the budget and planning system and the financial reporting system. While the former is oriented towards the future, the latter provides information about the past. The first system has a planning and coordinative function, while the latter more clearly performs an informational and control function (cf. Östman, 1975).

The financial reporting system is defined as the formal and standardized reports, which primarily but not exclusively are generated from and based on the accounting system, and which are submitted by the foreign subsidiaries to headquarters. These reports usually contain information of both qualitative and quantitative character. The common feature of reporting systems is that they usually are standardized and formalized in terms of content, structure and timing.

The reporting system generally constitutes the major formal channel of communication and information within the MNCs. It is clear that the system performs several different functions. In company III the primary purpose of the reporting requirements, according to the company reporting manual, is

... to keep headquarters informed, to be used for consolidation purposes, and to function as reference material about subsidiary operations.

The reporting requirements imposed on foreign subsidiaries also serve as an educational tool, forcing the subsidiaries to learn more about their businesses. In one of the MNCs investigated, the educational purpose is explicitly stated in the reporting manual.

The design of the international financial reporting system

The design of a financial reporting system can be described in terms of the frequency, magnitude and content of financial reporting, and the degree of system standardization (cf. also Anthony and Reece, 1975; Östman, 1975, for similar classifications). Each of these characteristics will be discussed below, utilizing the empirical data generated through the research.

Magnitude of financial reporting

The MNCs exhibited differences as to the magnitude of financial reporting. Table 5:5 shows the total *number* of formal standardized reporting documents and the different time intervals with which they are submitted by the subsidiary to headquarters. In the table the content of the reports has not been taken into consideration.

As is shown in the table, the reporting frequency varies considerably among the firms. The most common reporting frequency was found to be quarterly, with company V, for example, having its foreign subsidiaries submit 55 different reporting documents each quarter. Companies I-V require that their subsidiaries submit some reports only once a year.

Table 5:5. Number of reporting forms and frequency of regular financial reporting by the foreign subsidiaries

Company Reporting frequency	I	II	III	IV	V	VI
Upon request only	2	-	-	1	-	1
Only annually	3	1	2	5	1	
Quarterly or tertially	13	37	18	11	55	9
Monthly	1		2	7	3	4
Total number of formal reports	19	38	22	24	59	14

Factors such as corporate traditions and growth history, the control philosophy and information needs of the corporate headquarters, and group consolidation methods explain some of the differences observed among the firms. All six MNCs consolidate their accounts and prepare interim financial statements on a quarterly or tertial basis. This explains why this time interval tends to dominate the reporting frequency.

Table 5:6 shows the reporting frequencies of different items, i.e. the *content* of the reports. As can be noted from the table, the number of items reported regularly from the subsidiaries to headquarters is fairly similar among the MNCs.

When interpreting the results shown in Tables 5:5 and 5:6, one has to keep in mind that one MNC may provide one type of information in several reports, while in other firms the information might be provided in only one report. Also, overlaps may exist among different categories of information. Nevertheless, the data in Table 5:6 provides some insights into each MNC's emphasis on different items.

Table 5:6. Reporting frequency of different items

Company Item	I	II	III	IV	V	VI
Balance Sheet	3	3	2	3	3	3
Income Statement	3	3	2	3	3	3
Specification of Cash and Credit	3	3	2	3	2	3
Inventory	3	3	2	2	3	3
Production Output	3	3	2	2	6	6
Sales per Product	2	3	2	2	3	4
Market Share in Host Country	5	5	2	4	6	5
Performance Review of Subsidiary Managers	5	5	4	5	5	5
Political and Economical Conditions in Host Country	3	3	2	2	6	6

Key: 1 = weekly
 2 = monthly
 3 = quarterly or
 tertially
 4 = annually
 5 = not at all
 6 = every now and then

As can be seen from Table 5:6, company III is a notable exception, having a higher reporting frequency than any of the other MNCs. For example, company III pays the most attention to the host-country market shares. This attention is a reflection of the MNC's mature and standardized product lines and the intensive competitive conditions it faces. Company III is also the only MNC which regularly makes formal performance reviews of subsidiary managers.

In companies V and VI, conditions in the host countries are not reported regularly, while in the other four MNCs this is done monthly or every three or four months. This is probably explained by the higher degree of host country dependence in companies I-IV and the stronger host country interest or involvement in the operations of their subsidiaries. Higher host-country dependence, as well as intra-organizational interdependence, makes it important for headquarters to be informed about local conditions. Less interdependence in companies V and VI makes these MNCs as a whole less vulnerable to changes in local conditions than are companies I-IV.

The magnitude of reporting gives only a partial picture of the information system in the MNCs. As described in Chapter 4, many of the communication requirements are fulfilled by other means.

An interesting observation can be made by comparing the degree of informal communication frequency (in Tables 4:8 and 4:9) and the magnitude of financial reporting in companies V and VI. In spite of a similar context, company V has chosen to rely on standardized reporting and relatively little informal communication. On the contrary, company VI has intensive informal communication but little formal financial reporting.

It is likely that this difference is a reflection of different control philosophies in the two firms.

It also clearly shows that information needs may be met by various instruments. A strong interrelationship of a complementary nature seems to exist between the two instruments above.

Companies II and III, on the other hand, rely extensively on both formal reporting and informal communication. It is possible that high interdependence creates simultaneous needs for both informal and formal information flows. The formal information flows may be used for routine control and coordination, while the informal communication may be used for non-routine coordination and information about exceptional situations.

This conclusion is supported by the findings described below, regarding the degree of standardization of the reporting system and how senior management at headquarters uses the reports.

The size of the MNC and the degree of product diversity does not seem to affect the foreign subsidiaries' reporting requirements. It could be argued that companies IV, V and VI would require more information due to their higher degree of product diversity, but no consistent differences can be found among the six firms in this respect.

Standardization of the reporting system

Most of the firms investigated have found it necessary to standardize the design and content of their international reporting system. There is a trade-off involved here, as the information produced may not always be relevant for the context in which some of the subsidiaries are operating. Company VI is the only MNC which has deliberately chosen not to standardize the system, with the exception of some items required for consolidation purposes. The corporate controller in company VI commented as follows:

We allow each product division to develop its own planning and control system, and we request only a few items on a regular basis. We are operating

in highly different businesses and it is impossible to fit a single system to the specific needs of each of these businesses. Furthermore, we are strongly committed to a decentralization of divisional operations. They should be free to develop their own systems ...

The situation in company VI illustrates the fact that the development of the international reporting system is a complex function of the MNC's context and the prevailing corporate control philosophy or style.

All firms except company VI have formalized and standardized their international reporting documents on a corporate-wide or divisional basis as to layout, measurement principles and accounting definitions.

In some of the companies the reporting requirements changed depending on the financial performance of the subsidiary. In one case, corporate headquarters imposed new requirements partly to strengthen control and increase information, but also as a way to communicate dissatisfaction with subsidiary performance. In company II the corporate controller imposed new reports as needed, claiming that these were necessary for consolidation purposes. This explanation was given in order to reduce any resistance among the subsidiaries to increases in their reporting requirements.

Differences in reporting requirements and system standardization were also observed between wholly owned and partly owned subsidiaries (joint ventures). The degree of integration of standardized reporting systems in joint ventures was in general lower than in wholly owned subsidiaries. The degree of integration was found to be dependent on the overall integration of the joint venture into the operations of the MNC as a whole. Pressures on the joint ventures to adopt corporate-wide reporting standards tended to increase if the joint venture was consolidated into group accounts. Consolidation often makes it necessary to

ensure that each entity uses similar accounting methods and definitions.

It can be hypothesized that standardization in terms of content and format is undertaken by the MNC in order to improve the information-processing capacity of the organization. Unstructured and variable information flows can be expected to create information-processing problems (cf. Chapter 2).

It can also be argued that the MNC strives to standardize routine information flows such as those contained in the financial reports, in order to avoid information overload. Non-routine information needs are then processed on an ad-hoc basis and through informal channels. The research data supports this hypothesis, as the frequency of informal communication in the MNCs was found to be high (cf. Chapter 4).

The design of the reporting system tends to be fairly stable, changing only gradually over time. Usually it takes time for the organization to identify and correct inadequacies in the system. Abrupt changes in the design of the reports, or in reporting frequencies, may also have a negative impact on the ability of headquarters to use the subsidiary reports, and to process and act on the information supplied.

The corporate controller in company II commented:

Parts of our reporting system have been in operation since the fifties ... I hesitate to make major changes, though, as corporate managers by now have learned how to interpret and use the reports. They know the definitions and facts that are hidden behind the figures ...

A further indication of the degree of standardization and uniformity of the reporting system is the heavy reliance by subsidiaries on financial reporting manuals. In no other cases did the MNCs have such elaborate manuals to

guide the subsidiaries as in the area of accounting and financial reporting. The purpose of these manuals is to create a common frame of reference and to ensure comparability among different organizational entities.

SUBSIDIARY ATTITUDES TOWARDS THE FINANCIAL REPORTING SYSTEM

The success of any reporting system is highly dependent on the attitudes of the subsidiaries towards the system itself and the reporting requirements. The attitudes towards the international reporting system among the foreign subsidiaries were in general found to be positive. The fact that the subsidiaries are favorably inclined towards headquarter control and guidance has also been observed in earlier research (Bursk, et al., 1971). This observation is interesting, as headquarter executives often believe the contrary and are afraid of requesting too many reports from the subsidiaries.

The extent to which the subsidiaries considered the reporting system to be a help or a burden was found not to be linked to the actual magnitude of reporting, as suggested by Brooke and Remmers (1970, pp. 53-55), but to be dependent on, first, the ease of producing the reports, and, second, on the quantity and quality of the feedback given by headquarters. Feedback can range from very simple questions regarding information contained in the reports to comments about subsidiary strategy and/or host country issues.

It can be hypothesized that subsidiary acceptance of the reporting system and even their requests for central control and guidance are a function of two interrelated factors. First, as described by Hedlund (1980), the foreign subsidiaries often feel alienated from the strategy formulation process in the MNC, and lack direction about their "strategic role". Through feedback on the financial reports, and the potential intra-organizational discussions this feedback may induce, the feelings of alienation are

probably lessened. The reporting system itself then becomes an instrument to facilitate headquarter-subsidary communication and exchange of information.

Second, feedback may increase the subsidiary's feelings of affinity with the center. Many subsidiary managers use personal contacts and relationships with headquarter executives as means to solve problems and conflicts, and as a political instrument to increase their influence. The feedback given as a result of the reports and related discussions may be used to facilitate and reinforce these relationships. Headquarter feedback then also becomes an instrument to influence the future behavior of the subsidiary, i.e. as an instrument of control.

Most of the subsidiaries investigated requested more feedback on their reports. In particular, requests were made for more specific and timely headquarter opinions and expectations about performance levels, etc.

The financial manager in a subsidiary commented, for example:

I have never received any feedback on our reports. Still, we devote an enormous amount of time to producing them. If we don't submit the reports on time, the corporate controller calls us immediately ... It's very peculiar.

Another subsidiary manager commented:

I don't know if they read the reports at all. As long as I don't hear anything, I assume that everything is considered to be OK!

The research results indicate that the feedback given by headquarters is evaluated by the subsidiaries as to both content and source. If the subsidiaries consider any kind of headquarters feedback in response to the reports to be of minor importance, e.g. clarifications on accounting definitions, it tends to be regarded as "low quality" feedback. If the questions concern, for example,

subsidiary performance, strategy or environment and similar items, it is correspondingly considered to be of "high quality". The timeliness of feedback affects "quality" perceptions too (Leksell, 1980).

HEADQUARTER USE OF SUBSIDIARY FINANCIAL REPORTS

The design and content of the reporting system establish the limits for how the system can be used by headquarters for coordination and control purposes. As such it may constrain as well as direct the decision processes. The actual use of the system takes place within these limits and is process-oriented and related to other instruments of communication, coordination, and control employed by the MNC.

Several authors have made a distinction between the design and structure of the system, and the related control processes (see Anthony and Dearden, 1976; Östman, 1973, 1977). Others have noted the multiple functions of the international financial control system, and stress that the "style of control" is more important for the success of the system than its design (Bursk, et al., 1971, pp. 5-6).

Senior headquarter executives, i.e. top management and vice presidents in line and staff positions at both divisional and corporate levels, were asked what value they attached to information given in the reports and what types of actions they undertook as a result of the reports. Similarly, subsidiary managers, i.e. subsidiary presidents, vice presidents, and financial managers, were asked about the kind and frequency of feedback they received on their financial reports from headquarters.

Headquarter response takes two major forms. The first and most frequent form is that questions are asked on specific figures and/or accounting definitions employed by the subsidiary to arrive at certain items. These types of questions are highly routine and most often asked by the

corporate or divisional controllership function. The primary purpose is to clarify the specific content of the reports. No particular feedback is generally given in these situations.

More interesting are the non-routine questions and feedback aiming at influencing subsidiary behavior and operations. The research shows that this type of feedback is given only in "exceptional" situations, e.g. when subsidiary operations or performance to deviate from an expected pattern such as the budget or when headquarters perceives a problem or opportunity. The degree of headquarter tolerance of "unexpected" or "trigger" information was impossible to measure exactly, but the data indicate a high degree of variability over several dimensions. The response tends not to be confined to the controllership function, but can be given by different staff or line managers at different hierarchical levels, depending on the type of "exception" observed. The response can also vary among subsidiaries as well as over time.

The finding that headquarters responds to the reports non-routinely on the basis of "management by exception", principles has also been made in earlier research. Brandt and Hulbert (1975) found, for example, when investigating 63 subsidiaries located in Brazil, that regular feedback was not very common.

In general, top management in all MNCs receives condensed compilations of performance data from the subsidiaries. Among other things, these compilations allow corporate management to ask subsidiary managers discerning questions about their operations. Cases were observed where the corporate chief executive officers asked questions about matters like inventory levels for a minor product, or credit terms for some customer groups, etc. These very specific questions created a feeling among subsidiary managers that top management was very well informed about subsidiary operations.

Most of the senior headquarter executives commented, however, that they did not rely extensively on the formal reports to extract information about subsidiary operations and developments. Instead, the informal communication channels were used, e.g. telephone conversations and personal visits (cf. Chapter 4). The formal reports thereby become more of a confirmation of information already known. The limited use of subsidiary reports among senior executives raises the question of how valuable these systems are other than for routine control purposes. These findings are also consistent with Mintzberg's (1973) study of the type of information that attracts managers. According to Mintzberg, general managers seek current and verbal information.

It can be argued that the standardized information of the type provided in the formal reports is not what is needed in exceptional situations and non-routine matters.

Instead, headquarter staff and line managers create personal and informal communication links with the foreign entities in order to satisfy their information needs. The need for informal information channels can be explained partly by the lack of timeliness, inadequate content, and the historical perspective of the formal reports. The role of the financial reports is thus limited and of minor importance for the management of headquarter-subsidiary relationships. Rather, the reports are primarily used for consolidation purposes and for historical analysis of subsidiary operations.

It was observed that the low reliance on the formal reports and the increase in the flow of informal communication readily tends to be accompanied by increases in the number of "sub-goals" regarding subsidiary performance. The pattern observed was that different headquarter executives, staff or line, emphasized different operating areas in their communication with the subsidiaries. For example,

a divisional product manager may ask about sales levels, a financial manager about increases in inventory levels, and a corporate production manager about waste and material flows. The subsidiaries sometimes interpret these comments and questions as signals about headquarter goals and expectations, i.e. about those items against which subsidiary performance is measured.

As the number of "goals" increases, the likelihood of goal conflicts increases too; e.g. demands for better service and fast deliveries may conflict with demands for lower inventory levels. As a consequence, the subsidiaries easily become confused about headquarter expectations. For example, many subsidiary presidents were not able to state explicitly which performance targets or goals they were expected to fulfill, except what had been agreed upon in the budget for that year, even though the corporate and divisional controller had a clear perception of what he considered to be applicable goals.

An executive vice president in company IV commented on the problem as follows:

I am very careful in asking subsidiary presidents overly specific questions regarding their operating efficiency. If you repeat the same question too often, they start to believe that it's the most important evaluation criterion. Instead, I try to stick to their budgets and some specific performance goals.

The corporate controller in another of the MNCs commented on the use of efficiency ratios, etc. in subsidiary reports:

... They (ratios) are extremely dangerous. Managers here at the parent company use them to compare one entity with another, or to jump on the subsidiaries. At the same time, many of them don't know how the figures were computed or that comparisons cannot be made between our subsidiaries due to differences in operations and host country practices ...

Different and mixed headquarter goals and expectations were observed more frequently in companies I, II, III and IV than in companies V and VI. Several factors seem to account for these differences. Most notable is that the need for integration and coordination is strongest in the first group of MNCs because of their high degree of interdependence, and the oligopolistic industry structure in which they operate. The more complicated forms of interdependence are likely to lead to more complex goal structures.

In a comprehensive study on the use of management reports, Östman (1973) found that serious difficulties exist both in assessing user needs and in designing reporting systems which fit different needs. It can be assumed that the more complicated coordination requirements in companies I-IV create larger differences in user needs as to system design and content. Less reliance on formal reports and greater reliance on informal communication flows would consequently be expected in these firms. The research results support this conclusion. As already shown in Chapter 4, in the companies with more complex forms of interdependence, i.e. companies I-IV, the degree of informal communication and particularly the number of communication links were found to be larger than in companies V and VI.

Organizational structure may also have an impact on the adequacy of the formal reporting system. In companies III, V and VI, the product divisions have a certain freedom to design their own intra-divisional systems. Each system can thereby be differentiated and better fitted, within given limits of standardization, to the environmental and strategic context facing the division. In the MNCs with mother-daughter structures, similar flexibility and adaptation cannot be achieved with a given degree of system standardization and product diversity (cf. the description of the budget system).

The differences in type of goals and degree of informal communication between the integrated and the highly diversified MNCs can also be explained by a slightly different though complementary hypothesis. More internal transactions, as in companies I-IV, can be assumed to increase the difficulties in assessing and measuring subsidiary profitability. Intra-company transactions increase the likelihood that transfer pricing principles will influence the measurement of results and the validity of profit figures for entities that are profit centers. It is possible that instead of these figures operating-efficiency goals and qualitative judgments are used.

The adequacy of the subsidiary reports is also affected by measurement problems. Fluctuating exchange rates and different inflation rates among host countries clearly reduce the validity of the information contained in the reports, as well as the comparability among different entities. It cannot be excluded that this also partly explains why senior headquarter executives rely on and use the subsidiary reports to such a small extent.

The intra-organizational distribution of subsidiary financial reports

In most of the MNCs the corporate or divisional controller has the primary responsibility for processing and collecting subsidiary reports. The corporate controller in companies I, II and IV restricted as a matter of corporate policy the amount of subsidiary financial data which was given to the various product divisions. The product divisions, for example, were not allowed to receive complete financial statements and profitability analyses of the subsidiaries.

The corporate controller in company IV commented:

We have decided not to give the divisions complete financial information about subsidiary performance as it would give them an upper hand in price and

other internal negotiations. Clearly, they know fairly well the price situation in the different markets but to give them complete information could make them even stronger ...

It can be hypothesized that intra-company distribution of information is or can be used to affect the balance of relative power between the product divisions with their global product perspective and the foreign subsidiaries with their geographical-area emphasis. This balance, as noted in Chapter 3, is particularly characteristic of the MNCs with mother-daughter structures and extensive intra-organizational transactions among independent profit centers, i.e. companies I, II and IV. Companies III, V and VI did not follow this practice. As these MNCs have an organizational structure where the foreign subsidiaries report directly to divisions with global product responsibility, they have less need to balance the information flows.

SUMMARY

The purpose of this chapter was to describe and analyze the design and functioning of the administrative systems for coordination and management of the headquarter-subsidiary relationships. Two major administrative systems were discussed: the international planning and budget system, and the international financial reporting system.

Specifically, the following dimensions of the administrative systems were analyzed: (1) the design, time horizon, magnitude content and degree of standardization of subsidiary budgets and plans, (2) the budget process, (3) the purposes of the subsidiary budgets (for headquarters) and the conflict among different purposes, (4) the design, magnitude, content and degree of standardization of the international financial reporting system, (5) subsidiary attitudes towards the financial reporting system, (6) head-

quarter use and reliance on subsidiary financial reports, and (7) the intra-organizational distribution of subsidiary reports.

Each of these dimensions of the administrative systems were described and analyzed. The importance and influence of the system on the headquarter-subsidiary relationships were discussed. Furthermore, observed differences between the investigated firms regarding system design and functioning were analyzed. Several explanations were given and conclusions drawn as to how the environmental and strategic context of the MNC influences the design and functioning of the administrative systems for coordination and control of the foreign entities.

6 Social Systems for the Management of Headquarter—Subsidiary Relationships

The purpose of this chapter is to describe and analyze the social systems used by the MNCs to coordinate and control the foreign subsidiaries. The social systems consist of several interrelated subsystems which operate in conjunction with the organizational and administrative systems. This is better understood if social control is defined as the existence or creation of an organizational culture, norms and values, which guide the behavior of the organization and its members. The prevailing culture and values are influenced by the design and functioning of the organizational and administrative systems.

Earlier research has identified several instruments which can be used for social control purposes (cf. Chapter 2). Among the most important are the reward systems, which include the selection, compensation and promotion of organization members (cf. Lawler, 1977). These instruments are important, as they create a commitment to organizational policies, norms and goals. The instruments are also major tools for the creation and internalization of the organization culture.

In this chapter the design and functioning of the following instruments of social control are analyzed; (1) selection and recruitment policies in the MNCs, (2) transfer policies and mobility of subsidiary managers, (3) career and promotion of subsidiary managers, (4) compensation

policies, (5) replacement of subsidiary managers, and (6) power and social interaction between headquarters and the subsidiaries.

The description of the design and functioning of the social system gives further insight into the relative importance of social control in the firms. It has been considered important here also to describe some problems in managing the instruments of social control, as these problems sometimes prevent the active use of the instruments for coordination and control purposes. The chapter ends with a summary.

SELECTION AND RECRUITMENT POLICIES IN THE MNCs

Staffing international operations involves among other things a choice as to the nationality of subsidiary managers. These can be categorized as home country nationals, third country nationals (TCN), or local nationals, i.e. host country nationals. The final selection of any of these categories depends upon such factors as cost considerations, the qualifications and suitability of the individual candidate, host country characteristics such as immigration laws, and the availability of host country nationals with managerial talent. It also depends on the control strategy of the MNC.

Many developing countries in particular exert pressures on the MNC to employ host country nationals in order to improve the local image of the firm. At the same time there may be a shortage of experienced local managers who are capable of handling the parent company's management systems and/or are able to communicate effectively with headquarters (cf. Brooke and Remmers, 1977, p. 207).

None of the MNCs investigated have any formalized policy regarding the selection and recruitment of subsidiary managers. Instead, traditions and informal policies and procedures have evolved over time.

In general, all companies expressed a strong commitment to internal recruitment of managers for more senior subsidiary positions, i.e. recruit within the firm itself. Companies I, II and IV recruit almost exclusively from within for the positions as subsidiary president and vice president, while companies III, V and VI also actively recruit from outside.

In general, the companies expressed a commitment to recruiting the most suitable candidate for any position, independent of his nationality. In practice, however, this was not always the case.

A common, although not always explicit, policy among the MNCs has instead been to select and recruit Swedish nationals for the positions of subsidiary president and financial manager. The implicit assumption behind this policy is that coordination and control of the subsidiary are facilitated by having Swedes in these positions.

This policy is most explicit in companies I, II and IV, although it is sometimes difficult to recruit suitable Swedish candidates. The difficulties are partly due to the fact that in Sweden, as elsewhere, it is increasingly common for both husband and wife to pursue career objectives. Given dual careers, it is often difficult to find suitable international assignments that fit both parties.

Senior corporate executives also complained about an unwillingness among Swedish managers to move abroad and to accept any temporary discomfort while doing so. An executive vice president in company IV commented as follows:

We have a continuous shortage of talented people to run our foreign subsidiaries. Swedes are not willing to move out anymore. I spend hours in discussing compensation for houses that have to be sold, dental insurance, etc. Our problem is aggravated by the fact that we have difficulties in keeping track of those individuals that are willing and able to accept foreign assignments. In particular, we know nearly nothing about locally employed managers here at the parent company.

Selection and recruitment procedures

The identification, selection, and recruitment of subsidiary managers were found to be an ambiguous and ad hoc activity in all of the companies. None of them had a more formal and continuous system for keeping track of and evaluating suitable candidates for senior subsidiary positions.

Several authors have described common problems in the area of international human resource management and the difficulties of implementing adequate manpower inventory and planning systems (cf. Heenan, 1975; Desatnick, et al., 1977; Brooke and Remmers, 1977; Edström, 1979).

To identify suitable internally recruited candidates for international assignments, all the MNCs investigated rely on informal communication and the initiative and commitment of a few corporate managers. The typical selection procedure is well illustrated by the situation in Company II.

In company II the corporate personnel function becomes active in trying to fill an assignment or a need for a replacement of a subsidiary manager usually only after the matter has been requested by a subsidiary. The personnel function relies on a few corporate staff functions and senior divisional managers to generate suitable candidates. If, for example, a need arises to fill a vacancy for the position as subsidiary financial manager, the personnel department relies on the corporate controllership or treasury function to produce the names of suitable candidates. Similarly, the corporate marketing staff is expected to know of suitable candidates for the position as subsidiary marketing managers. The extent to which these functions really keep an inventory of potential candidates depends on the commitment and interest of individual staff members. Formally, it is not part of their responsibility. There is no formal *à priori* evaluation of the suitability of the different candidates, but evaluation takes place once the candidate is

found and has expressed an interest in the position. In company II senior staff members were said to be keeping track more or less continuously of around 10-15 candidates within their functional areas of responsibility.

The situation in company II is also fairly typical of companies I, III and IV. Once a candidate has been found and has accepted the new position, this tends to lead to a chain reaction of new replacements and recruitment of candidates to fill the newly generated vacancies. This puts a lot of strain on the various staff and divisional units, as well as on the corporate personnel function. Small variations were observed among companies I-IV. Company III has tried a formalized manpower planning system, managed by the corporate personnel function. The system had to be abandoned because of implementation problems and a lack of top management commitment. Company IV has adopted a system, whereby corporate staff members meet regularly with divisional managers to spot and discuss potential candidates for management positions in the subsidiaries. Recruitment committees with varying functional expertise have been formed with representatives from the personnel department and corporate and divisional managers.

Once the candidate is found, the corporate personnel function is in general responsible for salary negotiations. The candidate is sent to the subsidiary for further interviews and discussions, quite often together with his wife. It is largely at the discretion of the subsidiary president to accept or reject the candidate. In case the candidate is rejected, the selection and recruitment process starts again (cf. Miller, 1973).

The process described above is followed for managers appointed to senior subsidiary positions with the exception of the position as subsidiary president. For subsidiary managers at lower levels, corporate or divisional managers are rarely involved unless the position is considered very important and/or the candidate is employed on a con-

tract. Contract employees are in general only expatriated Swedes or third country nationals. In all the MNCs except companies V and VI, contract employees and their employment conditions are supervised by the corporate personnel function.

There is on the whole less corporate and divisional involvement in the two highly diversified firms compared to companies I-IV when it comes to recruitment of subsidiary managers. This is also reflected in the non-formalized or even non-existent corporate and divisional personnel function in companies V and VI (cf. Chapter 4). It is likely that the higher product diversity, less complex technology and lower interdependence in these two MNCs compared to the other four explain the difference.

In all the MNCs the subsidiary president has been given a high degree of autonomy to accept or reject newly appointed subsidiary managers. In general the subsidiary president has a veto power. Consultations tend to take place, however, between him and corporate and divisional managers before a final decision is taken. For recruitment of local managers (host country nationals) in the subsidiaries, the subsidiary president can in general decide upon any final appointment or dismissal. The corporate or divisional levels are consulted, however, in those cases where the appointment of a local manager could affect relations with other organizational units, e.g. the product divisions in companies I, II and IV. The corporate level tends always to be consulted when it comes to recruitment of a financial manager. This position is considered to be of such importance by headquarter executives that consultations are warranted.

The selection and recruitment of subsidiary presidents is different from the recruitment of other subsidiary managers. In general these appointments are made by the cor-

porate CEO and/or executive vice president in companies I, II and IV, depending on the importance of the subsidiary. In these cases, the corporate personnel function is primarily involved only when it comes to matters of compensation. In companies III, V and VI these are decided by divisional managers. This difference between the firms is a reflection of their different organization structures.

Table 6:1 shows the average number of Swedes and third country nationals in senior subsidiary positions in the six MNCs, i.e. as subsidiary presidents and vice presidents. (The figures have been adjusted for differences in subsidiary size.)

Table 6:1. Average number of Swedes and TCNs in senior positions in the foreign subsidiaries

Company Charac- teristics	I	II	III	IV	V	VI
Average number of Swedish managers	2.60	6.50	4.25	3.25	1.35	0.68
Average number of third country nationals	2.60	1.40	1.75	3.50	0.33	-

It is interesting to note from Table 6:1 the differences in the number of expatriate Swedish managers and TCNs among the firms. Company II clearly uses Swedish managers most frequently, and companies V and VI the least. Consequently, the latter two companies use local managers most frequently. In companies V and II there are fewer TCNs employed than in companies I, III and IV, while company VI has no TCNs.

The reliance on Swedish managers can be viewed as a form of social control. It can be hypothesized that home country nationals can more easily assimilate corporate goals and values, and understand management procedures.

The higher proportion of Swedish managers in companies I-IV compared to companies V and VI is probably due to coordination requirements in the former group of firms.

Companies I to IV are more complex than companies V and VI. The reliance on complex core technologies, standardized production methods and large flows of internal trade tend, among other things, to increase the need for control and coordination of subsidiary activities in companies I to IV. The coordination process, as well as communication between headquarters and the subsidiaries, is probably facilitated with Swedish managers in key subsidiary positions.

This interpretation may imply that when the firm uses home country nationals as subsidiary managers and as an instrument of social control, the need for other forms of coordination and control may be reduced. We will further discuss this in the next chapter in seeking to explain the differences observed among companies I to IV regarding their reliance on home and third country nationals.

It was observed that the tenure of host country nationals and TCNs tended to be longer in companies I-IV than that of their counterparts in companies V and VI. Great effort is made, particularly in companies I and II, to train and assimilate non-Swedish managers in the operations of the firm. Familiarity with operations and organization cultures are important for communication and coordination purposes. It is likely that less complex forms of interdependence, as in companies V and VI, reduce the need for training and assimilation of subsidiary managers. It is also easier under these circumstances to recruit and integrate local nationals. The subsidiaries in these MNCs operate also more independently within their respective host countries.

In the following sections some other instruments of social control will be described. The number of expatriate managers gives only a static and incomplete picture of the social systems. The transfer and promotion of subsidiary

managers and compensation policies are all integrated in the social systems for the management of headquarter-sub-sidiary relationships.

TRANSFER POLICIES AND MOBILITY OF SUBSIDIARY MANAGERS

In all six MNCs, and in particular in companies II and IV, the turnover of subsidiary managers is very low. It is not uncommon to find managers who have devoted their entire career to their company. The turnover was found to be slightly higher in the other companies.

International transfer policies differed in the six MNCs. Two major transfer patterns were identified. The first pattern typically involved transfers primarily among the different foreign subsidiaries. An international manager would move from subsidiary to subsidiary, within the same functional or product area, and/or move from lower to higher positions in the subsidiaries up to the position as subsidiary president. As subsidiary president, transfers would be from smaller to larger subsidiaries.

The second major transfer pattern involved transfers among not only different subsidiaries but also subsidiaries, product divisions and/or corporate headquarters. Typically, a subsidiary manager would regularly serve at corporate and divisional levels between subsidiary assignments. In some instances a foreign assignment would be followed by a line or staff position at headquarters.

Companies I and IV followed primarily the first transfer pattern, and companies II, III and V the second. In companies I and IV cadres of international managers have developed, while in companies II and III many more transfers were made among the foreign subsidiaries, corporate headquarters and product divisions.

In company V transfers from a foreign subsidiary were usually made only to the respective product divisions,

seldom to corporate headquarters. Transfers between divisions were rare. In company VI there were generally fewer transfers than in other firms. In this MNC it is uncommon for subsidiary managers to be moved to other units.

Although there is considerable spread in duration of foreign assignments for an expatriate Swede or TCN, the average tends to be five years. In case a subsidiary manager refuses proposals for a transfer, the corporate personnel function tends to exert pressure by changing his status as a contract employee to a local employee. This pressure to enforce intra-company mobility is used to a varying degree by all MNCs. The change of status may involve lower compensation and a loss of benefits, such as company-paid pension upon retirement. The primary consequence, however, is a loss of contact with headquarters. This is due to the fact that locally employed managers are primarily under the responsibility of the subsidiary president, while contract employment is coordinated by and under the supervision of headquarters.

It was observed that all MNCs use transfers as a means to promote control of subsidiaries, and to initiate and enforce processes of organizational change. Moving individual managers was considered to facilitate the change process.

Headquarter executives stressed the importance of personality of the subsidiary president for subsidiary performance and for the nature of the headquarter-subsidiary relationship. Transfers are actively used by the corporate or divisional levels to influence the relationship. The research findings corroborate the hypothesis of Edström and Galbraith (1977) that the transfer of home country nationals may facilitate the control and coordination of subsidiary operations.

Several cases were observed where Swedish expatriates were used to promote communication between the foreign subsidiary and the corporate or divisional level. The president in a joint venture (a local national) commented as follows on the appointment of a Swedish production manager (the production manager was the only Swede in the company):

It was absolutely necessary that Mr X was appointed. Before he came we were never able to receive any attention from the product divisions when we needed faster deliveries for some reasons or when we needed special blueprints for our own production. As a result we sometimes had serious production delays. He (Mr X) has improved the situation a lot in many instances just by knowing whom to contact in Sweden.

Other examples were found where transfers of managers, in particular expatriate home country nationals were used, for example to solve problems in connection with a performance decline in a foreign subsidiary, or to facilitate a transfer of technology. A case of technology transfer in company II illustrates this well.

Company II decided to introduce a new product in one of its South European affiliates in the beginning of the 1970's. The Swedish parent owned 51 per cent of the equity, while a state owned enterprise in the host country owned the remaining 49 per cent. The new product required completely new production methods and extensive transfer of technology from headquarters to the foreign entity. To manage the production start-up, several Swedish managers were transferred. According to the transfer plan, the number of Swedes was to be kept as low as possible. In 1970 there were five expatriate Swedes; in 1973 the number was increased to 25 to manage the start-up. In 1976 there were seven, and in 1979 the number of Swedes working in the joint venture was further reduced to three. By then the transfer of technology had been completed.

The research indicates that the different transfer policies described above may influence intra-organizational

identification patterns among subsidiary managers. In the companies which primarily undertake transfers only among the foreign subsidiaries, the subsidiary managers seemed to identify themselves mainly with the international operations of the MNC. The subsidiary managers in these companies frequently made a distinction between "us" and "them", with "them" being the corporate or divisional level.

In companies II and III, which most clearly followed the other transfer policy, subsidiary managers were less prone to make a distinction between international and domestic operations. Instead, identification or "feeling of belonging" more commonly related to different functions and/or product lines.

Although the transfer patterns seemed to influence the intra-organizational identification among subsidiary managers, no relation was found in this sample between identification pattern and the frequency of intra-organizational conflicts. The orientation of subsidiary managers is important, however, as it influences the way coalitions are formed and the possibilities of changing and developing headquarter-subsidiary relationships. The transfer policies adopted by the MNC thereby assume critical importance and must be carefully planned.

A relationship may also exist between the recruitment policies and transfer patterns in the MNC. If the MNC relies on local nationals and TCNs it may become difficult to repatriate them to the corporate and divisional levels. The difficulties are partly due to language and compensation problems and corporate traditions. This explanation is supported by the fact that none of the MNCs employed any senior non-Swedish managers at headquarters.

The corporate CEO in company I commented upon this as follows:

We try to staff our subsidiaries with the right man independent of nationality. I do not see any reason, however, nor any possibility, for staffing the parent company with non-Swedes.

As different staffing and transfer policies may influence identification patterns and the way coalitions are formed, it may also have an impact on the possibilities of changing personnel policies. The research also indicates a relationship between the number of locals and TCNs employed by the MNC, and the design and functioning of other control systems. Elaborate organizational and administrative systems may be a substitute for or complement to the social systems. Integration of locals and TCNs may then be easier, and there is less need to rely on home country nationals to coordinate and control the foreign subsidiaries. We will further discuss this in the next chapter.

CAREER AND PROMOTION OF SUBSIDIARY MANAGERS

The promotion patterns in the MNCs are linked to the transfer policies, as a transfer is often initiated after a promotion has been made. Three major patterns were identified although variations exist within all companies. Subsidiary and headquarter executives were asked how their own career had progressed and the characteristics of the typical promotion pattern within the firm.

The first pattern typically involves promotion within the international operations. An international manager would be promoted e.g. by being transferred to more important subsidiaries and to more and more important positions in them. In general, the career would culminate in appointment as a subsidiary president. This pattern was most clearly found in companies I and IV. In companies V and VI promotion is primarily within a single subsidiary rather than among subsidiaries.

The second major pattern typically involves sequential promotion between corporate headquarters, a product divi-

sion, and a foreign subsidiary. This pattern was most prevalent in company III. In this case an individual could move laterally between product divisions and different functions quite freely.

The last major pattern is similar to the second, but lateral movements, i.e. among different product divisions and/or functional areas are more restricted. Typically, promotion occurs between Swedish and subsidiary operations but tends to be within the same product group or division and/or functional areas of expertise. Company II exhibited this pattern most clearly among the six MNCs, but it was also observed, though to a lesser extent, in company IV.

Like the transfers policy, the promotion pattern in the MNC may influence the orientation of subsidiary managers and the way intra-organizational coalitions are formed. Thereby it may also influence headquarter-subsidiary relationships and conflicts among different coalitions. The research indicates that conflicts are more easily resolved if transfers and promotion patterns involve movements between headquarters and subsidiaries and across functional and product areas. In spite of promotion patterns, subsidiary managers often complained about the lack of more formal career planning. A Swedish subsidiary president commented:

No international manpower planning exists in this company, nor does anything that can be called management development. When a need arises to fill a vacancy in a subsidiary, they (corporate management) pick the first man to pass by in the corridor.

Similar comments, although less harsh, were often heard within the MNCs. Many expatriate subsidiary managers were of the opinion that appointments were often made on an ad hoc basis. With low visibility at the corporate or divisional level, expatriates often commented that they easily could be "forgotten". When they wished to be repatriated, often no suitable reentry positions at headquarters and in

the Swedish operations could be found. This is due partly to the fact that subsidiary managers become trained as general managers, while headquarter executives are more specialized in single product or functional areas. It is difficult to find enough suitable general management positions at headquarters which fit the expertise of subsidiary managers (cf. Heenan, 1970).

Similarly, host country nationals in the MNCs rarely felt that they had any particular career opportunities at the corporate or divisional levels or outside their host countries.

As noted above, the MNCs very seldom had any non-home-country nationals in senior management positions at headquarters. However, foreign managers were sometimes employed as middle managers at the divisional level, primarily in company III and to a lesser extent also in company IV. It is possible that the prevailing situation negatively affects the motivation of non-Swedish managers. No conclusive evidence was found to support such an hypothesis, although the turnover among local nationals and TCNs are slightly higher than among expatriate Swedes in some of the firms investigated.

COMPENSATION OF SUBSIDIARY MANAGERS

The MNCs follow different compensation policies depending on whether the subsidiary manager is locally employed, an expatriate, or a third country national. The latter two categories are usually employed on contracts of varying duration. For contract employees salary levels are determined by headquarters and coordinated within the MNC.

Locally employed managers receive compensation consistent with local salary levels. In general, the subsidiary president decides these levels. Contract employees usually receive a base compensation plus standardized adjustments

for local cost levels. Two major problems were found with the compensation policies employed by the MNCs.

First, with the relatively high taxes in Sweden and the various fringe benefits received from an international assignment, subsidiary managers often obtain better compensation after tax than Swedish-based corporate or divisional executives, sometimes including senior corporate vice presidents and even the CEO. It was observed that this tended to create, if not conflicts, at least some animosity among headquarter executives.

As a result, all MNCs also have problems in repatriating Swedes or employing foreign managers at headquarters in Sweden. It becomes too expensive to compensate them at the same level as on foreign assignments.

The second problem is that in countries with high salary levels and a scarcity of local managers, locally employed managers can receive higher compensation than more senior, contract employed, expatriates and third country nationals. This in turn can create problems between different managerial levels in the subsidiary.

Some of the MNCs have tried to structure their compensation packages in such a way that they conform completely to local salary levels. This in turn was found to reduce intra-company mobility and the possibility of transferring managers among different countries with different salary levels. Another similar system, tried by some of the MNCs, has been to compensate their subsidiary managers at a level consistent with prevailing salary levels in their respective home countries.

None of the MNCs have elaborate bonus or incentive systems. In those companies which used such compensation systems at all, only a minor part of the total compensation tends to be variable. This is generally true for most large Swedish MNCs.

The standardized compensation policies in the MNC implies that compensation is not a major instrument of reward; promotion and other forms of recognition are more important. This does not mean, of course, that no differences in compensation exist within the MNCs. Inter-divisional differences, for example, are quite common in companies III, V and VI.

REPLACEMENT OF SUBSIDIARY MANAGERS

While promotion and compensation are the positive dimensions of the reward system, the dismissal and replacement of managers are the negative dimensions. Both are equally important for the formation of the organizational culture and for the control of the foreign entities.

Very rarely do headquarters in the MNCs fire a senior subsidiary manager. Managers at corporate, divisional, and subsidiary levels commented that the policies in the area of dismissals were very liberal - too liberal, according to some. A corporate personnel director commented for example:

I have some doubts that we should be soft and liberal when it comes to the firing of incompetent subsidiary managers. Why should we export liberal Swedish policies to non-Swedish foreign managers, accustomed to other practices? It is clear that we, over the years, have incurred high costs by not replacing subsidiary managers fast enough.

Some differences were found among the six MNCs as to their willingness to replace a subsidiary president because of poor performance. The propensity to do so was clearly highest in companies III, V and VI. In companies II and IV, and to a lesser extent in company I, subsidiary managers could rarely remember any case where a subsidiary president had been fired for inadequate performance.

Although these latter MNCs do not fire subsidiary managers directly, they do replace them when considered necessary. More subtle methods are then used. If an expatriate

is concerned, the most common method is to repatriate him to a staff position at corporate or divisional level, and to give him some obscure responsibility.

Companies I, II and IV all had corporate staff positions which were known by the rest of the corporation to be the "dumping ground" of repatriated managers. The same type of positions also existed but to a lesser extent in company III, while they were very seldom found in companies V and VI.

It is possible that differences in organization structures explain why companies III, V and VI are more inclined to replace subsidiary managers. Contextual variables such as age, size, product diversity and interdependence do not explain the differences, as company III has a different context than do the two highly diversified firms.

The research indicates that as the subsidiaries report to a global product division, supervision is facilitated and performance evaluation becomes more precise and better understood by headquarters. The design of the administrative systems in the fully divisionalized MNCs supports this conclusion, the systems being more financially oriented and stricter than in companies I, II and IV (cf. Chapter 5). Contrary to what has been suggested in earlier research, product diversity and interdependence do not seem to explain the differences observed among the MNCs in these respects (cf. Chapter 2). The fully divisionalized MNCs have tougher personnel policies and although divisionalization may be positively related to decentralization, this structure seems also to be accompanied by tighter controls.

POWER AND SOCIAL INTERACTION BETWEEN HEADQUARTERS AND THE FOREIGN SUBSIDIARIES

All organizations have political dimensions. Coalitions are formed, and goals and allocation of resources are negotiated among subunits. Power, and its distribution within

the organization, is an important determinant of the political and social processes. Power is usually defined as the ability of a subunit or an individual to determine and control the behavior of another (cf. Weber, 1947, p. 152). It is clear that, for our purpose, the ability of headquarters to control the foreign subsidiaries depends partly on the relative power position of the two and their ability to impose any sanctions (cf. also Prahalad and Doz, 1980).

The distribution of power within the MNCs also influences the process of resource allocation among product divisions and among subsidiaries (cf. Bower, 1970). For these reasons it is important to understand the sources and distribution of power within the firms.

Authority as defined by the formal organization structure, and hierarchy is one obvious source of power. However, power can also be based on specific competence and abilities to make distinct contributions to the organization, as well as on persuasion and manipulation.

To more fully understand the characteristics of the prevailing organization culture in the MNCs and how the social systems, including culture, influenced the relationships, the political and social structure in the firms were observed.

The primary source of power in all six MNCs is the hierarchical level and the authority specified by the formal organization structure. This does not mean, however, that other power bases are unimportant. On the contrary, expertise, ability to work together with other organization members and tenure are important sources too, particularly in company II, but also in company IV.

There are also variations in the relative power of different foreign subsidiaries within the same MNC. Larger and strategically more important subsidiaries are generally more influential within their firms. Similarly, subsidiary

presidents with a proven record of high performance tend to be influential in all firms.

The relative balance of power between subsidiaries and product divisions in companies I, II and IV are of interest, as both are at the same hierarchical level (cf. Chapters 3 and 4). Particularly in company II, but also in company IV, the corporate level tries to balance power between them. In company I, on the other hand, the product divisions are more influential than the subsidiaries. An indication of the higher influence of the divisions in this MNC is that conflicts with the subsidiaries are generally resolved in the favor of the divisions by the corporate level. In company II more care is taken to resolve conflicts between the area-oriented subsidiaries and the product oriented divisions in an equitable fashion.

Companies III, V and VI do not have the same need for a balance of power between subunits, as the subsidiaries report formally to a product division. In fact, in these three MNCs the subsidiaries were generally found to be less influential than their counterparts in companies I, II and IV. The design of the formal structure, and the rationale behind the structure, explain this situation (cf. Chapter 4). In the latter group of MNCs, the corporate staff also tends to be more influential than their counterparts in the fully divisionalized MNCs.

We noted above that the balance of power between product divisions and subsidiaries was more equitable in company II than in company I. In company I subsidiary managers were more inclined to make a distinction between the divisions and the corporate level on one hand, themselves on the other. On the other hand, subsidiary managers in company II were less prone to identify only with the foreign subsidiaries and international operations, and to view product divisions and headquarters as a separate coalition.

Besides the difference in transfer policy described above, it is likely that the distribution and balance of power affect the formation of coalitions and identification patterns in the MNCs. We will return to this more in detail in Chapter 7.

Another important attribute of the social systems is the characteristics of intra-organizational relationships and interaction patterns. The social processes are part of the systems of control, as they may be used to form and to communicate organizational values and norms regarding desired behavior.

The six MNCs can be classified into three major groups according to the nature of social interaction patterns. We have chosen to describe the two most extreme cases, i.e. companies II on the one hand and company III on the other, noting that the characteristics of the other four MNCs fall in between these extremes.

In company II communication and interaction between managers at different hierarchical levels are highly informal and unregulated. There is a strong identification with company traditions and values. Authority is not strictly enforced. Company representatives are proud of the fact that more or less everybody can approach senior managers, including the corporate CEO, and freely discuss problems and express opinions about company matters without any fear of repercussions. Control is personalized in the sense that there is a belief among senior corporate managers that lower level managers will implicitly behave according to company values and objectives.

The corporate CEO in company II commented, for example:

It is impossible for me to perceive a situation where any of our engineers would discuss more confidential company matters with any of our competitors.

Similarly, a corporate executive vice president commented:

Our top management group has worked together for decades. We know each other extremely well. It would be a disaster for this company if an outsider would be externally recruited to our group.

The culture and the feelings of belonging to a "family" in company II is supported by a low turnover of managers and extensive internal recruitment.

Companies III and V, at the other extreme, have a different culture. In company III, for example, authority is more strictly enforced and specified. Communication and interaction between managers at different levels are formalized. Communication patterns are specified as to channels and more closely follow hierarchical relationships. "Freedom of speech" without fear of repercussions is less prevalent than in company II. Instead, care is taken by lower level managers not to step outside what is regarded as unwritten limits. Hierarchical authority is as a consequence not challenged. Middle managers often rely heavily on written instructions and manuals for guidance, while such instruments are nearly nonexistent in company II (cf. Table 4:4).

The differences in social interaction between companies II and III do not necessarily imply any differences in the degree of internalization of the culture among organization members. The implications for the headquarter-subsidary relationships are of another kind. In company II the organization culture is a powerful and important instrument of control. The strong culture is reflected in the lesser usage and importance of organizational and administrative systems of control. In company III the organization culture is of less relative importance for the control of the foreign entities. Instead, the more explicit and structured organizational and administrative systems complement the culture and diminish its relative importance for control purposes.

This conclusion leads to the question of how various control systems are related to each other. In the next chapter we will address this question.

SUMMARY

The purpose of this chapter was to describe and analyze the design and functioning of the social systems used to coordinate and control the foreign subsidiaries.

The social systems consist of several interrelated subsystems or instruments which influence the behavior of the organization and its members. The following instruments were discussed: (1) recruitment policies and procedures, (2) transfer policies for subsidiary managers and the implications of these policies for the formation of intra-organizational coalitions, (3) careers and promotion of subsidiary managers, (4) compensation policies, (5) replacement of subsidiary managers, (6) power and social interaction in the MNCs.

Each instrument for social control was analyzed regarding its structural design, how it is managed and how it is influenced by the environmental and strategic context of the MNC. It was shown that beside the influence of various contextual variables, the instruments are associated with the characteristics of the organization culture in the MNCs.

The relative importance of social control systems for the management of the headquarter-subsidiary relationships was also discussed. It was argued that the instruments of social control operate in conjunction with the organizational and administrative systems for coordination and control.

7 The Interrelationship Between Control Systems and Total System Configuration

In the three previous chapters each of the organizational, administrative and social systems for the management of the headquarter-subsidiary relationships was described and analyzed. These systems were studied separately in order to facilitate the analysis of how the environmental and strategic context of the MNC influence system design and functioning. This approach did not allow, however, an analysis of any potential interrelationships between coordination and control systems within a single MNC, nor of how the whole range of systems within an MNC may influence the mode of managing headquarter-subsidiary relationships.

In this chapter the focus is changed. We will analyze the total configuration of systems within a limited number of MNCs. More precisely, the purpose of this chapter is twofold. First, we will investigate the potential interrelationships among the organizational, administrative and social systems, and analyze how the design and functioning of each of the systems influence the design and functioning of the others.

Second, we will analyze how the design and functioning of all systems within one firm influence the mode of managing headquarter-subsidiary relationships as well as the performance of the firm. The whole range of instruments, procedures and processes for coordination and

control of foreign subsidiaries is here designated the *total configuration* of systems.

In order to fulfill these purposes we will make an in-depth analysis of the total configuration of systems in two of the MNCs, namely companies I and II. With the focus on a limited number of firms, potential interrelationships between control systems can be magnified and discussed more in detail. To carry out the analysis, we rely on the descriptions in Chapters 3-6. The interested reader can go back to these chapters for verification and to analyze other firms in the sample in a similar fashion.

To complement a static analysis of the total configuration of systems and to clarify the interrelationships among the various systems, we will describe in a number of cases how the two MNCs resolve intra-organizational conflicts. The cases illustrate the dynamic and process-oriented characteristics of headquarter-subsidary relationships.

Companies I and II have been selected because they face a similar environmental and strategic context. The analysis of the total configuration is facilitated in that the context of the MNCs is held constant.

THE DESIGN AND FUNCTIONING OF TOTAL CONFIGURATION OF CONTROL SYSTEMS

The purpose of this section is to analyze how the systems in the total configuration for coordination and control of the foreign subsidiaries interact and are related to each other in companies I and II. We have chosen only to summarize the design of the various coordination and control instruments, procedures, and processes. For the more precise measurements and descriptions the reader is referred to Chapters 3-6.

The environmental and strategic context in companies I and II - A summary

The environmental and strategic contexts of companies I and II are very similar (cf. Chapter 3 for more detailed descriptions and definitions).

Both I and II are among the most international and largest corporations in Sweden. They have diversified over the years, building primarily on technological strengths. Their mode of diversification can be categorized as dominant. Both are of approximately the same size in terms of sales, total assets and number of employees.

Companies I and II's main businesses are in high technology areas. Both have continuous high investments in R&D. Superior technology and high quality are their major competitive strengths. Most of the products are in their final stage; they consist of systems partly adapted to the needs of each specific customer.

Both companies I and II sell their products to large institutional buyers. Governments and state-owned enterprises are important customers. Both have more than 50 per cent of their sales outside Sweden, more than 13 foreign manufacturing subsidiaries and more than 30 sales subsidiaries. Company II has more than 50 per cent of its employees outside Sweden, while company I has around 30 per cent of the employees working abroad.

Both firms are operating in oligopolistic, highly concentrated industries. Barriers to entry are high, primarily because of capital-intensive production and high R&D content.

They are also both exposed to complex and uncertain environments. In Sweden they are faced with growing trade union influence and co-determination. This affects their ability, both legally and politically, to rationalize production in Sweden and/or to relocate production abroad.

Abroad, the MNCs are encountering strong host government influence in their businesses, particularly in many LDCs, which are the fastest growing markets for both firms. They are faced with government pressures to increase local production and R&D, and in some instances also to increase subsidiary exports. These pressures are in some countries reinforced by trade barriers, export subsidies, and local content requirements in connection with government purchases.

Areas such as R&D and manufacturing are centralized and strongly integrated on a world-wide basis by corporate headquarters in both MNCs. Foreign subsidiaries are not allowed to start any manufacturing or to make any product modifications without the consent of the headquarters production staff. Quality standards are closely controlled.

Capital investment decisions in both firms are centrally coordinated and approved by corporate headquarters. When transferring production technology abroad, the MNCs usually transfer the same technology as is used in Sweden.

The foreign subsidiaries in both firms are strictly prohibited from engaging in export activities without the approval of headquarters. Very few of the foreign subsidiaries have R&D facilities and the MNCs have followed a strategy of locating primary production and R&D capacity in Sweden in order to realize economies of scale in these activities. R&D strategy is more or less exclusively decided upon by headquarters staff and the respective product divisions.

In the next sections the characteristics of the organizational, administrative and social systems are described (cf. Chapters 4-6). While similarities exist between the firms, we will primarily focus on the differences. After the description, the total configuration of systems in each firm will be analyzed.

The organizational systems in companies I and II

Both MNCs have chosen an organization structure of product divisions and independent foreign subsidiaries reporting directly to corporate top management. Both the product divisions and the subsidiaries are separate profit centers.

Corporate headquarters in both MNCs consist of a number of staff functions. Some of these functions maintain close contact with the foreign subsidiaries. The most important ones are the controller function, production planning, finance, and marketing function. In company II the functions are, in most cases, headed by executive vice presidents. In company I the managers of these functions are at a slightly lower level. These functions are the major "integrators" in company II, while the executive presidents in company I perform most of the integrative tasks. The corporate staff functions are smaller in company I compared to company II.

As the major production and R&D facilities are located in Sweden, the foreign subsidiaries are net buyers of goods from the product divisions. This structure often gives rise to conflicts, e.g. regarding transfer prices as well as a potential imbalance of power.

Requests for local differentiation of products and procedures are, as could be expected, initiated mostly by the foreign subsidiaries, while global integration and standardization are emphasized by the product divisions. In both MNCs this frequently leads to conflicts between the divisions and the subsidiaries. Conflicts of this kind are resolved by the corporate staff functions together with top management. In company I the product divisions win relatively more "battles" against the subsidiaries compared to the divisions in company II.

There are few standing committees with members from headquarters, divisions and subsidiaries in both firms.

The committees that exist are primarily established to discuss production and R&D issues that require global coordination. In general, the agenda is established by headquarter staff. Both MNCs are committed to strong subsidiary boards of directors. The role of the board is primarily to give advice on and to manage host country relations.

In company I corporate policies and instructions are written down, continuously updated and well documented. The policies cover most facets of the company activities and are fairly operational in guiding subsidiary management. Company II, on the contrary, has very few or no written policies or instructions. Company I has less frequent informal communication between headquarters and the subsidiaries than company II. Communication between headquarters and the subsidiaries is also more regulated and formalized in company I in terms of format, channels and content. The staff in both MNCs try to restrict multilateral communication flows among the different foreign subsidiaries. This holds true particularly for company II. If any communication takes place between the subsidiaries, it generally tends to be bilateral and initiated by the subsidiaries themselves.

The administrative systems in companies I and II

The administrative systems exhibit many similarities, but also some notable differences. Both MNCs have formal long-range planning systems. The plans have, however, little operational value and are primarily extrapolations of the annual budget.

The budgeting process can be characterized as bottom-up. Budget revisions are made twice a year in company II, and in company I only if large deviations occur. In company II the subsidiaries tend, when revising the budget, to anticipate negative deviations, thereby reducing the risk of unwelcome "surprises" for headquarters.

The budget is an important tool for coordination; both MNCs, and company II in particular, use the budgets for production planning purposes. The budget is more important in company I for exchange of information between headquarters and the subsidiaries. It is also more important for performance evaluation purposes.

The social systems in companies I and II

The power and social systems in the MNCs are different. Power in company I is primarily linked to the hierarchy, with distinct differences between each hierarchical level. To a smaller extent, power is also given after a proven "track record". In company II power is more a function of knowledge and expertise, seniority and dependability. Power in company II is also to a larger extent than in company I a function of coalitions' and managers' ability to have smooth interpersonal relationships with other organization members.

The organizational climate is also different in the two MNCs. Company II is characterized by an open and supportive climate, while company I is more closed and competitive. In company I middle management tends to confirm decisions with higher management levels. In company II vertical communication flows more freely.

In company II coalitions are primarily formed within functions; for example, a production manager in a foreign subsidiary usually has his primary loyalty towards the central production departments in Sweden. In company I coalitions are more along the line of domestic versus international.

In both MNCs there is a strong feeling of company affiliation. In company II this is very prevalent, with little turnover of management personnel.

Both firms have special corporate staff functions who actively play the roles of liaison, monitoring and conflict resolution between, for instance, the foreign subsidiaries and the product divisions. Company II has larger and more staff functions performing roles of this kind. These functions also include monitoring to a larger extent than similar functions in company I. In company I conflicts are usually resolved by the superior authority of higher hierarchical levels. In company II conflicts are first resolved by confrontation between the conflicting parties. If this does not work, the corporate controller and/or the central marketing staff tries to smooth the conflict. Forced resolutions are used only as a last resort. In company I many potential conflicts do not appear because top management already decreed how potential areas of conflict are supposed to be resolved.

For example, transfer prices are in company I often predetermined, as corporate management sets profit targets and discount allowances for the divisions. In company II corporate management allows the divisions and the subsidiaries to negotiate transfer price levels freely. Pertinent information about subsidiary profit margins is withheld from the divisions, however, in order to balance the bargaining power of the parties.

Companies I and II do not use monetary rewards systematically. The primary rewards are therefore promotion and/or a higher degree of autonomy. Correspondingly, punishments seldom take the form of firing subsidiary management. Instead, more subtle techniques are used such as decreased autonomy and relocation. The latter method usually implies for an expatriate manager that he is repatriated to headquarters and placed in an obscure staff position. Overall, company I has a harsher system than company II. Actually, some company II executives complained that it took too long a time before headquarters intervened and replaced subsidiary managers.

The difference in reward systems between the two firms is reflected in the fact that company I puts more emphasis on formal and unidimensional performance evaluation criteria, e.g. financial criteria like net profit and ROI, and has a lower tolerance for performance deviations in the subsidiaries. Correspondingly, headquarters in company I intervenes faster in the case of inadequate subsidiary performance.

Of the two MNCs, company I has relatively more local or third country nationals (TCNs) in subsidiary management positions. In company I, contrary to company II, international management personnel tends in general to be transferred within the international operations, instead of between international and domestic operations. Company I relocates its subsidiary managers more often than company II, i.e. mobility is higher. On the other hand, there is a higher mobility of subsidiary managers in company II than in company I when it comes to transfers between domestic and international operations.

To fill senior management positions in the subsidiaries, company II relies almost exclusively on internal recruitment. Company I relies more on external recruitment.

Having summarized the structural design of the total configuration of control systems, we can turn our attention to the interrelationships among the systems in both firms.

Interrelationships between control systems in companies I and II

It is evident from the description above that company I in relative terms relies more on formalized instruments for coordination and control of the foreign subsidiaries. Formalization is reflected in efforts to standardize the organizational procedures and processes. Corporate head-

quarters relies for example on written policies and instructions, while informal communication is of less importance.

Similarly, organizational systems like the formal structure and hierarchy are used to specify relationships, authority and responsibilities. The administrative systems support the organizational systems to formalize the relationship. The budget system and budget process are used as instruments for exchange of information, thereby probably reducing the need for informal communication between headquarters and the subsidiaries.

It can be hypothesized that the reliance on standardization reduces the need for integrative devices, like corporate staff functions. The well-structured organizational and administrative systems also affect the social systems. Relative to company II, social control is less important. It is likely that with clear distribution of responsibilities and authority, reward systems can be firmer. Social control in the form of unwritten organizational norms and values are replaced with standardization and written policies and instructions.

It is probable that this also facilitates external recruitment and the integration of host country nationals and TCNs into senior management positions.

The system configuration in company II is different from company I. The organizational and administrative systems play a less important role, while the social systems are more important.

The organization structure is less formal in the sense that authority and responsibilities are not as well specified nor as closely linked to the hierarchy. Standardization in terms of written policies and instructions play an insignificant role.

On the contrary, social control is important. Unwritten policies and procedures imbedded in the organization culture are internalized by organization members. Corporate

traditions and culture are preserved by internal recruitment and a low turnover of personnel. Power is also gained through tenure, expertise and interpersonal skills.

To sustain social control, it is likely that the reward system has to be moderate. Evaluation also takes place over several dimensions, making it more difficult to emphasize financial performance alone as a criterion.

The lower number of host country nationals and TCNs in senior management positions in the subsidiaries is probably a consequence of the reliance on social control in company II. With more informal structure and low standardization it becomes difficult to externally recruit subsidiary managers who are not familiar with the prevailing culture. Without personal contacts or knowledge of how the organization functions, it is difficult to know with whom to communicate. (In fact, company II had a four year old organization chart at the time of the research. The author used the internal telephone book to visualize the structure of headquarters.)

It is evident that the different systems may both complement and substitute for other systems. The descriptions above indicate also that the configuration of systems may take different forms in different firms, irrespective of similarities in contextual factors. Before elaborating on this, we will substantiate the discussion above by illustrating how the configuration of systems operates in the two firms.

MANAGEMENT OF THE HEADQUARTER-SUBSIDIARY RELATIONSHIPS - THE TOTAL CONFIGURATION IN ACTION IN COMPANIES I AND II

The purpose of this section is further to illustrate the interrelationships among the various coordination and control systems. The headquarter-subsidiary relationships are clearly not static conditions of the kind de-

scribed above, but a dynamic process of interactions of various kinds. To highlight the relationship in action, two similar cases involving conflict resolution processes in each of the MNCs have been selected. Conflict resolution processes are a good vehicle for understanding the management of the relationships and the interrelationships among the systems. By studying conflicts, we are able to study the various systems when they are placed under stress. The first case illustrates how each of the MNCs has resolved a conflict with a joint venture. The second case describes how the product-area balance is managed in the MNC and how conflicts between product divisions and the foreign subsidiaries are resolved (cf. Chapter 2).

The two cases also illustrate some implications of differences in the design of the total system configuration in the two MNCs. As will be shown, the research indicates that company II is more successful than company I in resolving intra-organizational conflicts. It seems that the success can largely be attributed to differences in the design of the total configuration and the emphasis on different control instruments.

The case of PAX - Company II's disobedient joint venture

PAX was formed in the mid 1960's between company II and a Danish conglomerate. Company II has a minority position. PAX is operating in the same business as company II and is also heavily dependent on the MNC's technology. PAX is one of two producers within the MNC of a minor product, here called product Y. From company II's point of view, the strategic role of PAX in the Group is to produce Y and in particular to act as an agent and importer of company products in Denmark. In terms of sales and profitability, Denmark is only a minor market for company II. With the technological standard of the Danish customers (mostly government), a strong hold on the market is fairly

important for company II's worldwide reputation. PAX's major competitor in Denmark is a US MNC, and together they dominate the market. PAX uses company II's foreign subsidiaries for export distribution, in particular for product Y but also for other products. PAX is an old and well-known company in Denmark. PAX is regularly visited by company II's corporate marketing staff and controller, as well as divisional managers. These visits are made in order to exchange information and to coordinate the activities of PAX with the rest of the MNC.

PAX had been unprofitable for a longer period of time, and both management and owners considered it necessary to develop new products. In 1970 PAX was asked by its major customers about the development of a new product X. The customers considered it necessary to have X by 1978; if not, they would go to PAX's competitor.

In Sweden company II has a product division which develops and markets products similar to X. The division informed PAX in 1974 that they would not complete the development of a product similar to X until the beginning of the 1980's. Based on this, PAX started their own development of X. The product division in company II claimed unsuccessfully that PAX did not have the expertise necessary for the development, nor would X be cheap enough when completed. The division suggested that PAX should wait until 1980 for the division's own model of X. It should be mentioned here that products like X are sold together with company II's other products and are part of larger product systems.

In 1978 PAX had finished the development of X. At the same time it became clear that the division also had completed the development of its own version of X. Both models were comparable in terms of price and technical performance. PAX wanted to sell X through company II's

worldwide sales network. The division clearly wanted to do the same with its own product. Corporate management in company II was divided on how to handle the issue. Divisional management claimed that it was impossible for company II with its reputation to market worldwide products of the same kind in competition with one another. To produce both versions would also reduce economies of scale, which are substantial for products like X. The majority owner of PAX pushed hard for an acceptance of PAX's version of X, as PAX had made a substantial investment in R&D. The conflict was obvious.

The management of company II was irritated at PAX's independence, and the division lobbied hard for a rejection of PAX's model. Initially, company II demanded that PAX withdraw product X. PAX refused and threatened to build up their own international distribution system. Company II responded with what was perceived by PAX as a threat, to boycott PAX's products which were being distributed and sold by company II's foreign subsidiaries. This interaction took place primarily between the division and PAX. Company II's members on PAX's board of directors were mostly neutral (corporate executive vice presidents in company II).

Company II's corporate marketing staff initiated a series of meetings among PAX, the division, and staff members. No final agreement was reached. Corporate management in company II then intervened. A compromise solution was found where PAX was allowed to sell product X only in Denmark. On the other hand, PAX received exclusion rights within the MNC to produce and sell product Y. Both parties agreed to the solution and agreed to collaborate on future development work. The division helped PAX to make some improvements in X, and the two versions were slightly redesigned and integrated in order to reduce production costs for PAX.

The case of Bellum - Company I's disobedient joint venture

Bellum was formed in the beginning of the 1960's, after a merger between two old Danish companies. A Danish foundation became the majority shareholder in Bellum. Company I received a minority position. The strategic purpose of company I's participation in Bellum was to protect the Danish market primarily from German competitors. At the end of the 1960's Bellum had serious financial problems. The owners selected a new management team who turned the company around.

Bellum produces products similar to those of company I and is dependent on company I's technology. Bellum markets some of company I's products in Denmark, and company I markets Bellum's products in Sweden. Bellum also uses company I's foreign subsidiaries for export distribution.

When Bellum was formed, an agreement was made whereby Bellum became the sole producer within company I of a certain product range. Bellum also obtained exclusive rights to sell this product on selected export markets.

After 1974 Bellum started an intensive diversification program into products completely unrelated to their old and company I's businesses. The diversification program was initiated by Bellum's management with support from the majority shareholder. Besides economic reasons, the diversification was an attempt to reduce the dependence on company I. Company I's CEO was the only representative from the MNC on Bellum's Board of Directors. The Board met three-four times a year. He became one of the few persons in company I with knowledge about Bellum. Bellum's CEO also met once a year with company I's president and some senior corporate staff executives.

Company I tried to stop Bellum's diversification program, as it affected company I's strategic purpose with Bellum. The MNC tried several times unsuccessfully to

gain the majority of the shares in Bellum by buying out the foundation. The hostilities between Bellum and company I increased. Both parties were disappointed with the other's sales performance of their respective products. Bellum also pursued independent development projects similar to PAX. In some instances products were exported under company I's brand name in competition with company I itself.

The conflicts were not resolved. A few unsuccessful attempts were made by senior executives in both company I and Bellum. Both parties were suspicious of each other. Minor conflicts emerged frequently as a result. Bellum, for example, charged company I's subsidiaries with excessive interest rates on overdue accounts receivable. (That particular conflict took more than a year to resolve.) Company I responded by holding back technical information and product specifications. In both firms top managements were involved to a large extent in the process. Bellum refused to submit financial data requested by the corporate management of company I. Soon after this field study was completed company I divested Bellum. Some of the related products were bought from Bellum and a wholly owned subsidiary was established in Denmark.

Analysis of the cases of the disobedient joint ventures

The issues above highlight the processes in the social, organizational and administrative systems in company I and II, respectively. It seems as if company II managed the conflict resolution process more successfully. This may partly be explained by situational factors, such as the personalities involved. However, the different design of the total configuration of systems in the two MNCs probably explains the different outcomes to a large extent.

When analyzing the processes that took place in the two cases, some differences clearly emerge. Company II has a more informal organization structure than company I. Information flows more freely both vertically and horizontally. The informal structure, strong corporate culture, and mild reward and punishment system make it probably more flexible and efficient in solving extraordinary conflicts like that with PAX. People are less threatened and accustomed to openly discussing conflicts. Company I, on the other hand, is more internally competitive, formal and authoritarian. In company II the culture is such that attempts to resolve conflicts are first made by the conflicting parties. To ask for top management intervention is considered as a sign of weakness and avoided if possible. This is reflected in the attempts of the product division to stop PAX's development of product X.

The corporate staff functions in company II are used to fulfill the important role as mediator. Company I, on the other hand, does not have as well developed conflict resolution techniques. Senior corporate management is involved in solving or anticipating conflicts by decrees. When extraordinary conflicts emerge, like that with Bellum, standardized conflict resolution techniques are not very appropriate. Senior management in company I also has less international experience than in company II, because of differences in transfer policies, and are also in general recruited from the product divisions. This perhaps creates a built-in bias towards a strong product perspective and less propensity to accept a deviation from corporate and divisional policies and attempts to increase local differentiation.

Company II has somewhat more international experience and more joint ventures than company I. This may account for the difference in conflict resolution processes. The joint ventures are more closely integrated and usually

treated as a member of the "family" with the same standing as wholly owned subsidiaries. Information about joint ventures is evenly spread in the organization as a whole. The joint ventures themselves do not feel discriminated. This may facilitate the conflict resolution processes.

In company I contacts and exchange of information with joint ventures are limited to a few senior executives. The relationship with the joint ventures tends to be time-consuming for these already burdened managers, and the total joint-venture relationship becomes more dependent on personal contacts and relationships. The rest of the organization knows little about the strategic reasons for the joint venture, or what informal agreements have been made between the parties. This increases the risk of conflicts, misunderstandings, and discrimination against the joint venture by product divisions and corporate staff. The heavy involvement by top management personnel in company I tends also to give all issues and decisions regarding the joint venture, the character of policy matters. This may in turn hinder the conflict resolution processes.

The case of the demanding host governments

As noted above, both MNCs face strong pressures in some host countries, particularly in LDCs, to increase local manufacturing and local content in the production of the subsidiaries as well as to export part of the output from the subsidiaries. Contrary to the cases of the disobedient joint ventures, this demand constitutes a dramatic change in the environmental contingencies facing the firms and is also in strong conflict with corporate strategies. From a strategic point of view, these demands constitute serious problems for both firms particularly as such pressures are becoming increasingly common. MNCs like companies I and II, with centralized production and

R&D, while at the same time being forced to have good host government relations, are very vulnerable to environmental pressures of this kind.

The host countries' demands on the subsidiaries for manufacturing, high local integration, and exports, magnify the power struggle between product and area perspectives in the MNCs. In companies I and II, with their strong product orientation, this struggle is particularly prevalent. With a split-up of production and increased subsidiary exports, the product divisions in the two MNCs face a loss of market shares, reduced economies of scale and reduced profits. Without relocation of manufacturing capacity and increased local differentiation, the subsidiaries, on the other hand, may face a loss in market share, decreased profitability, host government retaliation and social pressures. The issue is therefore a perfect illustration of how the product-area balance is managed, i.e. how a dual organizational focus can be obtained which simultaneously balances conflicting requirements for global integration and local differentiation. The management of this balance is also the essence of the headquarter-subsidiary relationship in this particular type of MNCs (cf. Chapters 2 and 3).

Product-area balance in company II

Company II resists as much as possible any split-up of production. Exports by a foreign subsidiary are forbidden without the consent of the corporate marketing and production staff. All basic R&D is located in Sweden with the exception of a few joint ventures. In these cases the local R&D is not of any strategic importance to the MNC as a whole.

Subsidiary requests for increased local production are channeled through the local board of directors, the

marketing staff, and/or the corporate controllership function. The two staff units make a first analysis of the demand, and an assessment of the economic and political cost/benefits associated with the request. The request is then usually remitted to the product divisions and the central production staff in charge of all foreign manufacturing. The divisions resist a priori any demands for local differentiation. The primary responsibility of the corporate production staff is to manage the transfer of technology and to supervise manufacturing activities in the foreign subsidiaries. No major local manufacturing decision can be made without their approval. In the organization as a whole, including the subsidiaries, they have a good reputation for being highly professional.

The subsidiary generally loses the first round of the "battle". If the conflict escalates and the subsidiary persists, a new round of investigations and analysis starts. Usually the subsidiary then magnifies the importance of the host government pressures. The MNC has a policy that subsidiary management alone is responsible for all company operations in their country (cf. Chapter 4). Corporate headquarters relies on the subsidiary for analysis of market and political developments in the host country. The product divisions do not have the authority to order the subsidiary, for example, to make new product introductions.

Through this policy, subsidiary management becomes the foremost expert on the host country within the MNC. The corporate marketing staff and the controller make frequent visits to all subsidiaries, however. The visits enable headquarters to gain further knowledge about the host country and the subsidiary operations. The personnel in the two staff functions have usually been subsidiary managers themselves. Each of them is responsible for a limited number of countries and subsidiaries, and have

usually worked with these countries for a considerable number of years. They are therefore the major experts at headquarters on subsidiary operations and environmental conditions in the host countries.

The fact that the staff functions have had international experience and have a thorough knowledge about local conditions, makes it more difficult for the subsidiaries to play on their local expertise and to push for local differentiation. The marketing staff does not have any formal authority over the subsidiaries or the divisions. Their knowledge and expertise, as well as their access to top management, make them, however, influential with both the product divisions and the subsidiaries.

The second round of analysis is usually accompanied by a series of visits to the subsidiary by headquarter staff and divisional personnel. Whether the request is granted or not depends largely on the outcome of the analysis and the lobbying efforts of the subsidiary. If no solution can be found, corporate top management makes the final decision.

If the subsidiary's request is disapproved by top management, no major intra-organizational conflicts emerge after that. In case subsidiary performance is negatively affected by the decision, this is taken into consideration by top management and the staff when evaluating the subsidiary. The analysis that has taken place before the final decision enables headquarters better to understand the costs and benefits associated with the decision. After a decision is made, in consensus or after top management intervention, the parties involved usually accept it without much complaint.

Product-area balance in company I

The process is different in company I. As in company II, it is the subsidiary which takes the first initiative.

Any request for increased local integration or exports is always strongly rejected by the product divisions. The issue is then directly referred to one of the executive vice presidents in charge of production or marketing. The request is generally rejected.

The MNC has chosen to make explicit the policy that production should be concentrated to Sweden as much as possible (cf. Chapter 3). Existing foreign manufacturing subsidiaries are not allowed to export and thereby compete with the product division's export operations. In some countries company I has both local manufacturing operations and imports from Sweden. To enhance Swedish exports and to reinforce the policy mentioned above, the local operations are often divided into one manufacturing and one sales subsidiary. Top management in the MNC is of the opinion that one single unit cannot push both activities with equal vigor. Usually the local marketing of goods imported from Sweden is assumed to lag behind marketing of locally manufactured goods.

As the policy is made explicit and any requests are directly referred to top management, most subsidiaries hold back their demands for local differentiation. The corporate policy acts indirectly as a censor of any subsidiary demands. If government pressures start to affect the performance of the subsidiary more seriously, the demands usually become more persistent. This tends to result in lengthy discussions, lobbying and conflicts with the product divisions concerned. The subsidiary management uses most of the devices available to persuade top management of the necessity and urgency of the demands.

The corporate staff in company I does not have the same thorough knowledge about local conditions as does the staff in company II. Furthermore, very few of company I's top management have had any more extensive international experience. The subsidiaries' requests tend therefore to

be regarded a priori with a certain suspicion and distrust by headquarters.

If the subsidiary is persistent enough, the next round usually results in a number of visits from the product divisions and a senior production manager from headquarters. If the subsidiary cannot present a good case, the request is generally rejected. Primarily on the basis of the recommendations of the production manager, top management makes the decision. The ability of the subsidiary to convince headquarters is largely dependent on the subsidiary's past performance and the degree of confidence headquarters has in subsidiary management. The conflict resolution process takes more time in company I than in company II and is usually more conflict-ridden.

In case the demands of the subsidiary are not accepted by headquarters, it does not necessarily mean that the conflicts abate. The subsidiaries complain that the process takes too much time and that nobody listens to them. The product divisions complain that the subsidiaries do not understand production economies and the necessity of generating a high cash flow in Sweden to finance R&D investments. Subsidiary disobedience seems to be more common than in company II. Some of the subsidiaries investigated tried to engage in exports without prior headquarters approval. The discipline in the organization is high, and once corporate management intervenes, compliance usually follows.

Analysis of the case of the demanding host governments and the product-area balance in companies I and II

The corporate staff functions in company II are, as mentioned above, more developed than in company I and tend as a consequence also to be larger. The effort that is put into the analysis of the host country government demands,

enables both the subsidiaries and the product divisions to present their respective concerns and positions. The process enables top management to become better informed about the costs and benefits associated with possible solutions. As the conflicting parties feel they get fair and unbiased treatment, they tend to accept the recommended solution without much complaint. This probably facilitates implementation once a decision is taken, as well as reinforcing both the divisions' and subsidiaries' abilities to see the issue from the perspective of the corporation as a whole.

The role of the corporate staff gives company II an excellent opportunity to manage the balance between global integration and local differentiation in a flexible way. The staff tries to balance the relative influence of the subsidiaries and the product divisions. The locus of power may shift continuously between the product and area perspectives throughout the conflict resolution process. The management of the conflict resolution process is further facilitated by a relatively mild system of rewards and punishments. Both the subsidiaries and the divisions know that if the solution is negative for them, this will be taken into consideration when evaluating their performance.

Company I, on the other hand, has less developed conflict resolution techniques. Senior management is used to solve or anticipate conflicts through instructions and edicts. When extraordinary conflicts emerge, no standard resolution techniques are useful. Headquarters has less knowledge about local conditions, and as corporate strategy is explicit and formalized regarding issues of this kind, any deviations are harder to accept. As this type of issue usually requires capital investments, as well as affects host country relations, careful analysis is required to make a decision anyway. Company I does not have the same staff resources as company II, which may partly explain why the process takes a longer time. Company I

does not have the same free communication flows as company II, which also makes an open exchange of information more difficult.

The corporate staff in company I is not the same natural "friend" of the subsidiaries as is the staff in company II. This probably restricts communication. In order to become a "trusted friend" of a foreign subsidiary, the first requirement is probably to have enough knowledge and experience about local conditions and international operations in general. The people at company I headquarters with this experience are few, as a consequence of the transfer policy in this firm.

The discomfort and persistence of company I's subsidiaries are probably also due to the harsher system of rewards and punishments. As headquarters has less knowledge about each subsidiary's specific situation, the final outcome when the issue is resolved becomes more critical for subsidiary and divisional management, as it may affect performance levels. It becomes more important for the subunits in company I to clearly state and repeat their arguments, and if worst comes to worst, to disobey, in order to inform top management and to minimize the potential negative effects of the issue, and thereby to avoid future repercussions when performance is evaluated.

Company I has more locals employed as managers in their subsidiaries than does company II. This may help to explain some of the differences. It is possible that host country nationals have a biased attitude in favor of the host country and are less willing to accept a decision which is against their own governments' policies.

It is also possible that company I's conflict resolution techniques do not work as well in highly heterogeneous and turbulent environments. It can be hypothesized that coordination and control systems are more adapted to a homogeneous and stable environment.

In fact, company I recently created the system with liaison officers at corporate headquarters, described in Chapter 4. Senior corporate managers have each been given the responsibility for a number of subsidiaries and also been appointed to the subsidiary board. Their primary responsibility is to coordinate the activities of the subsidiaries, to keep informed about subsidiary operations and local conditions, and to act as communication intermediaries at headquarters, i.e. to be some form of "subsidiary friend" in headquarters. The system of "liaison officers" has created a new integrative device and an informal communication channel between headquarters and the subsidiaries. This may affect the future balance between global integration and standardization and differentiation at the subsidiary level.

THE INFLUENCE OF THE SYSTEM CONFIGURATION ON HEADQUARTER-SUBSIDIARY RELATIONSHIPS AND CORPORATE PERFORMANCE

Companies I and II both face the requirement of achieving a dual organizational focus similar to the characteristics of formal matrix organizations. It is interesting to note, though, that both MNCs have been able more or less efficiently to manage the relationships in a matrix mode without resort to a formal matrix structure. The dual focus is achieved by managing the various control systems in a fashion conducive to a dual perspective among divisional and subsidiary managers.

Company II has solved the problem by having a strong corporate culture, which emphasizes the "well-being" of the MNC as a whole rather than specific subunits. Potential goal incongruences between subunits are reduced by a management transfer policy which familiarizes individual organization members with different perspectives. Product-area conflicts are not avoided, but rather are an integral part of the organizational processes. Through conflict

resolution processes, a balance is achieved in line with corporate objectives. The conflict resolution techniques operate in an informal matrix mode as each party, i.e. divisions and subsidiaries, feels fairly treated by the corporate staff. Performance evaluation systems are multi-dimensional, recognizing the impact of a solution which may be suboptimal for an individual subunit.

Company I has less developed multidimensional systems. The system configuration in the firm makes it more difficult to manage the relationship in a matrix mode. This may largely explain why company I seems to be somewhat less efficient in solving intra-organizational conflicts of the kind described above. Policies regarding transfer of managers tend to divide the organization into coalitions which each holds either a product or area perspective. With more regulated communication patterns and a standardization of policies and procedures, it becomes more difficult to handle exceptional and non-routine situations. Knowledge about the different positions held by the product divisions and the subsidiaries is restricted to a few individuals at the corporate level. The lack of knowledge at the corporate level makes it more difficult to implement a dual perspective among subsidiary and divisional managers.

The lack of more elaborate conflict-resolution techniques is reflected in an effort to avoid intra-organizational conflicts through policies and procedures which prescribe how subunits should act in certain matters. It is also reflected in smaller corporate staff units compared to company II. If the divisions and the subsidiaries are unable to resolve a conflict, the matter is transferred directly to corporate top management. Without the intermediary step of staff mediation, the final resolution of the conflict is more easily interpreted as a policy decision taken by top management. It can be hypothesized that

under these circumstances the likelihood increases that one of the conflicting parties may feel mistreated, thereby further polarizing coalitions and intensifying feelings of mistrust.

A harsher system of rewards and punishments and less multi-dimensional performance measurement also make it more difficult to manage the headquarter-subsidiary relationships in a matrix mode. As each subunit has to strive for the best possible financial performance irrespective of the "well-being" of the MNC as a whole, goal incongruences are more difficult to reconcile. Consequently, there is also less inducement to adopt a dual perspective, or to develop a cognitive orientation among subunit managers so that they may emphasize the well-being of the firm as a whole rather than that of their own subunit.

Although company II seems to be relatively more efficient in managing the relationships in a matrix mode than company I, this does not mean that the firm is more efficient in other respects. The way the system configuration is designed in company II requires larger corporate staff functions than in company I. This is clearly costly. We have also noted that it is more difficult with the system configuration in company II to recruit externally and to staff the foreign subsidiaries with host country nationals. If local staffing is required as in Mexico, difficulties may arise in finding suitable candidates who are able to smoothly integrate and to function efficiently in the firm. The emphasis on an open conflict resolution process and the low avoidance of conflicts can be time consuming and divert efforts from primary business activities. For example, one subsidiary president in company II devoted more than 30 per cent of his time to discussing and resolving conflicts with the various product divisions.

It is also likely that in case corporate management in company II wishes to strengthen profit responsibility in

subunits and to make the system of rewards and punishments more firm, this may conflict with the prevailing corporate culture. It can therefore be argued that due to the design of the system configuration, company II is less flexible in terms of being able to effect fast change in organizational procedures and processes. Swift and speedy reaction may be necessary in case of increased environmental turbulence.

It can be concluded from the analysis above that even for firms which face a similar environmental and strategic context, no system design is identical with another or uniquely more effective for managing headquarter-subsidiary relationships. Rather, it depends on the particular problem at hand and the specific strategic and environmental requirements facing the firm at any point in time.

This conclusion is further substantiated by comparing the performance of companies I and II. To investigate the financial performance of the MNCs, we used measures which focused on both consolidated profitability and growth of the firm. The results are shown in Table 7:1.

Table 7:1 shows that companies I and II do not exhibit any consistent differences in financial performance in spite of great similarities in context and considerable differences in the design and functioning of the total configuration of systems. These results contradict what has been postulated by earlier research and in particular the contingency theory of organizations (cf. Chapter 2).

As a complementary performance measurement, both headquarter and subsidiary executives in the investigated firms were asked two things: first, to assess how successful the foreign subsidiaries had been in achieving company goals during the last five years; second, to judge how successful the MNC had been in managing the headquarter-subsidiary relationships during the same period. The success as perceived by managers in the MNCs was measured by asking

them to make the assessment on a five-graded scale ranging from 1, "very unsuccessful", to 5, "very successful".

Table 7:2 shows the results.

Table 7:1. Financial performance of the MNCs during 1970-1978 (rounded average figures for the period)

Company		I	II
		%	%
Return on equity ¹	Average	10.37	11.02
	Standard deviation	3.96	3.51
Growth in earnings per share ²	Average	13.53	11.82
	Standard deviation	45.67	40.56
Growth in share-holders equity	Average	6.34	8.32
	Standard deviation	6.92	3.85
Growth in total capital	Average	14.17	13.16
	Standard deviation	5.11	9.62

1 See also Table 3:8 for performance in terms of return on total capital.

2 Adjusted for new issues of shares during the period.

As is shown in Table 7:2, no major differences in performance can be observed between the two MNCs according to the perceptions of the firms themselves. Company I exhibits a higher variance, particularly when it comes to perceived success of the mode of managing the relationships. This may be a reflection of the way intra-organizational conflicts are resolved and the somewhat more lengthy conflict resolution processes in this firm. The results in Tables 7:1 and 7:2 do not indicate, however,

Table 7:2. Subsidiary success in achieving company goals and the success of the mode of managing the relationships

Company			
		I	II
Performance Measure			
Subsidiary success in achieving company goals	Average	3.80	3.60
	Variance	0.70	0.30
Success of the mode of managing the relationships	Average	3.50	3.60
	Variance	3.66	1.30

Key: 1 = very unsuccessful
5 = very successful

that a direct relation exists between the design and functioning of the total configuration of systems and the performance of the MNC.

Although a direct relation cannot be found, several indirect ones may exist. It can be hypothesized that the importance of the design and functioning of the total configuration lies in its ability to adapt to new strategic and environmental requirements. The characteristics of the total configuration may determine the ability of the MNC to preserve its strategic and operative flexibility. With unstable environmental conditions, such flexibility is likely to be a prerequisite for maintaining and improving the present as well as the future performance of the firm. In these respects performance cannot be viewed as a unidimensional concept nor can it be measured as such.

INTERRELATIONSHIPS BETWEEN CONTROL SYSTEMS AND THE CONSISTENCY OF THE TOTAL CONFIGURATION

The analysis of the total configuration of control systems in companies I and II indicates that the various systems are related to one another. These observations lead to two important questions. First, with an interrelationship between control systems, how do the design and functioning of the various control systems adapt to and influence one another? Second, how do any interrelationships affect the design of the total configuration and the mode of managing the relationship? Both these questions will be addressed in this section.

The interrelationships among the control systems may take several forms. The analysis above shows that different systems may both complement and substitute other systems. For example, formal communication in the form of financial reports may be substituted for by informal communication in the form of personal contacts and visits (cf. companies V and VI). Both forms may at any point in time be equally good for coordinating and controlling the foreign subsidiaries. Similarly, organizational control instruments like standardization and written policies and procedures may be substituted for or complemented by social control instruments like reward systems, staffing and transfer policies.

Although different control systems may complement and substitute for one another, we are not able to determine from this research the more precise dynamic nature of the interrelationships among the systems. The existence of interrelationships allows us to hypothesize, however, that the design and functioning of one system may influence the design and functioning of the other, i.e. interdependent relationships exist between systems and the various systems may adapt to one another in a dynamic fashion. As will be shown below, such a hypothesis is supported by the empirical data.

This hypothesis and the existence of interrelationships among the design and functioning of various systems of instruments have some important implications. First, it means that a desired change in the design and function of one control instrument may affect other control instruments as well. Consequently, the various control instruments cannot be seen in isolation. Instead, their functioning must be related to the functioning of other instruments, as well as to the design and functioning of the total configuration of control systems.

Second, the interrelationships imply that a desired change in the functioning of one coordination and control instrument may be reinforced and supported or prevented by the design and functioning of other instruments. It may happen that the intended change in one instrument is prevented and never achieved because of an unintended change in the functioning of other instruments. Similarly, an inadequacy in the functioning of one instrument may be compensated for by a change in the functioning of other instruments.

Let us illustrate this by looking again at company II. This MNC relies on internal recruitment of subsidiary managers and extensive social control. The firm has never bothered strictly to formalize its organizational and administrative systems. Assume now that at a certain point in time corporate management wishes to reduce "inbreeding" and to increase the managerial capacity of the organization. A decision is taken that the firm should start to recruit senior managers externally. The possibility of implementing this decision will depend on the ability of the organization to assimilate the new managers. It is likely that many failures and conflicts will occur before externally recruited organization members understand the prevailing organization culture and social methods of coordination and control. It is also possible that the

decision has to be reversed due to difficulties to assimilate the new managers. Given that the decision is implemented, the total configuration will probably change. The reliance on social coordination and control instruments may gradually be replaced by more elaborate and standardized organizational and administrative instruments, as these can be expected to facilitate the assimilation and integration process.

These conclusions have some far-reaching implications. They mean that it may be a fruitless task to try to develop and change one instrument for coordination and control, if its interdependent relationships with other instruments are not taken into consideration. If an inadequacy in the functioning of one system is identified by management and corrective actions undertaken to change the system, such a correction may never be achieved if not supported by changes in other systems too. Similarly, a desired change in the mode of managing the headquarter-subsidiary relationships may require a change in the design of the total configuration of control systems.

The situation in company III in the beginning of the 1970's supports this conclusion. After a period of serious decline in corporate performance and in face of increased competition, corporate management decided to reorganize into the organization structure described in Chapter 4. The purposes of the reorganization were to strengthen the profit responsibility of the foreign subsidiaries, to reduce the degree of product differentiation at the subsidiary level and to improve global product rationalization. The MNC had, however, relied on social control of its operations and had autonomous subsidiary managers who were accustomed to direct contact with the corporate CEO, i.e. a form of mother-daughter structure. Many subsidiary managers refused initially to accept new reporting relationships and less local differentiation and as a conse-

quence, several attempts to reorganize failed. In order to achieve the desired changes, corporate management started with extensive external recruitment of new subsidiary managers and more or less forced existing managers either to adapt and accept new positions or to leave the company. Many senior managers also left as a result of the changes. New planning and budgeting procedures were initiated and the performance evaluation system was changed during the process.

In other words, to achieve the desired changes, corporate management considered it necessary to reduce the emphasis on social control and to increase the reliance on organizational and administrative coordination and control systems. Increased reliance on these systems required changes of the social systems. The results of the changes are also reflected in the design of the various systems in this MNC. They exhibit for example both strong formal and informal dimensions (cf. Chapters 4-6). The strategic re-orientation of this MNC with increased emphasis on global product rationalization and standardization could probably never have been achieved without change in several elements in the total configuration.

It is likely that over time, corrective actions have to be taken by management in order to tune the design of the total configuration to changes in the environmental and strategic requirements of the firm. If the design and functioning of the various systems as well as the sum of them, i.e. the total configuration does not fit the requirements, they can be considered as externally inconsistent. Similarly, the design and functioning of a single system can be considered internally inconsistent if it prevents the desired functioning of other systems. It can be hypothesized that any form of inconsistency may negatively affect the long-run performance of the firm to adapt.

The situation in company III shows also that internal inconsistencies within the total configuration may arise when the MNC wishes to reorient its strategy and operations in order to adapt to new environmental requirements.

The existence of any internal inconsistencies within the total configuration is likely to depend on the adaptiveness of different control instruments and the characteristics of the interrelationships among them.

If the various control instruments are viewed as open adaptive systems, it can be hypothesized that adaptive changes in system functioning may take place as natural organizational processes. Adaptive changes of a single system as a response to the functioning of other systems can then be more or less automatic and take place without any particular need for actions by management to initiate the change. If the adaptive processes are automatic, this implies that internal inconsistencies among systems would seldom persist over time. In other words, it is possible that an inadequacy in the functioning of one system would disappear over time with compensating changes in the functioning of other systems. The limits of system adaptiveness would then only be determined by the requirements regarding design and functioning placed on the system by management or the environment at any given point in time, and the ability of the system itself to change its functioning without necessitating changes in its design.

The research indicates that different coordination and control instruments can more easily adapt and change their functioning without requiring a change in design. The analysis of the total configuration of control systems in companies I and II indicates, for example, that some of the more informal social instruments are more adaptive in this respect than formalized organizational and administrative instruments. The situation in company III illustrates, however, that although the social systems are adaptive in

terms of functioning, it may be difficult and time-consuming to change their design if the firm is faced with completely new requirements of coordination and control. The situation in company III also illustrates that control instruments have limits regarding functional adaptiveness. At a certain point we can expect that changes in design are necessary in order to induce desired changes in functioning.

A distinction ought therefore to be made regarding the adaptiveness of system functioning and the possibilities to change system design. Many less tangible organizational and social instruments like organization climate and personal communication links seem to be more flexible and adaptive in terms of functioning. This corresponds to, as well as supports, Burns and Stalker's (1961) findings regarding "organic" management. "Mechanic" management patterns, e.g. the reliance on formalized control instruments like standardization, written manuals and procedures, and the hierarchy, are less flexible in terms of their ability to adapt their functioning when faced with new requirements.

This does not imply, however, that "organic" patterns and informal coordination and control instruments are always better. The analysis of the total configuration in companies I and II indicates that it may be more difficult and time-consuming to change the fundamental design of many "organic" instruments. The situation in company III further illustrates that in face of completely new requirements which necessitate changes in system design and not only in system functioning, desired changes in the mode of managing the headquarter-subsidiary relationships have to be supported by changes in several systems.

It can be hypothesized in this context that it is easier to change the fundamental design of many of the more formalized systems, thereby also changing their functioning, than it is to change some more informal systems. For

example, it is easier to change the design of a formalized system like the financial reporting system than to change informal communication patterns and the power structure within the organization.

Consequently, we can also argue that a balance between more "formal" and "informal" instruments within the total configuration ought to be achieved. This would allow the organization to adapt in a flexible way to continuous and perhaps minor changes in requirements as well as easily and quickly change the design of the total configuration in the face of completely new coordination and control requirements and major environmental changes.

From a managerial point of view this implies that the objective is to design the total configuration in such a way that strategic and operative flexibility is preserved. This will determine the ability of the firm to reorient its strategy and operations and will thereby also influence the long-run performance of the firm. If this objective is recognized, attempts can be made to tune the design and functioning of the total configuration to the present strategic and environmental requirements as well as to those expected in the future. The organization may then be developed continuously, rather than through major sequential changes which may be disruptive and initiated only when the problems become acute and crises appear (cf. Chapter 2).

By recognizing interrelationships among control instruments, management of the firm may support organizational change processes, e.g. in order to speed them up. If adaptive changes take place more or less automatically, this also implies that managers may strongly influence the functioning of the total configuration by deliberately changing the design and functioning of one or a few coordination and control instruments. It should be noted, however, that although internal consistency may be achieved

more or less automatically, this does not necessarily mean that the total configuration is externally consistent. Any change in coordination and control requirements imposed by a change in the environment or a strategic reorientation may necessitate a change in the design and balance of the total configuration, as well as a change of a single system, the latter in order to support a desired change of the total configuration.

It is likely that a strategic reorientation of the MNC can be facilitated if interrelationships between various control systems are recognized and managed in a conscious fashion. Resistance to change and stalled changes of organization structure and processes can thereby probably be avoided.

SUMMARY

The purpose of this chapter was twofold. The first purpose was to analyze the interrelationships among the organizational, administrative and social systems and how the design and functioning of each of these systems may influence the functioning of other systems.

The second purpose was to analyze how the design and functioning of all instruments, procedures and processes for coordination and control of the foreign subsidiaries, i.e. the total configuration of systems, influence the mode of managing the relationships and the performance of the firm.

To achieve these purposes, the focus of analysis was changed compared to Chapters 4-6. Instead of investigating each system separately, the total configuration of systems in a limited number of MNCs were described and analyzed in depth. The analysis of the total configuration was complemented with a number of case descriptions. The cases described how the MNCs resolve intra-organiza-

tional conflicts and further illustrated the interrelationships and the dynamic and process-oriented nature of the headquarter-subsidary relationships in MNCs.

The analysis and the cases allowed us to draw some important conclusions as to how the design and functioning of the total configuration influence the mode of managing the relationships and how they may affect the long-run performance of the MNCs.

The analysis was carried out on two of the MNCs investigated: companies I and II. These two MNCs were chosen because they face a similar environmental and strategic context. While they exhibit similar performance, they show considerable differences in the design of the total configuration and the mode of managing headquarter-subsidary relationships. This indicates, contrary to what has been postulated in much of earlier research, that contextual factors alone cannot fully explain the design and functioning of different coordination and control systems. We will elaborate upon this in the final chapter.

8 Summary and Implications for Managers

In the previous chapters we described and analyzed the need for and mode of coordination and control of foreign subsidiaries in multinational corporations (MNCs). In Chapter 3 the environment and strategy of the MNCs investigated were described. It was also shown in this chapter, in addition to Chapter 2, how the environmental and strategic context of the MNC influences the requirements and needs for coordination and control of the foreign subsidiaries.

In Chapters 4-6 we described and analyzed in great detail various instruments, procedures and processes used by the MNC to manage headquarter-subsidiary relationships. These descriptions gave also a detailed account of the internal functioning of MNCs. The various instruments were classified into three major groups of coordination and control systems; namely, the organizational, administrative and social systems. In each of these chapters the design and functioning of the systems were described and compared in the six MNCs investigated. Several conclusions were drawn as to how the environmental and strategic context of the MNC influences the design and functioning of the systems.

In Chapter 7 we changed the focus of analysis. Instead of looking at each system separately, we described and analyzed how the various coordination and control systems

are interrelated within a single MNC. The whole range or set of instruments, procedures and processes for the management of headquarter-subsubsidiary relationships was designated the total configuration of systems. We analyzed how the design and functioning of the total configuration influence the mode of managing headquarter-subsubsidiary relationships. Some hypotheses were also advanced as to how the design of the total configuration may affect the performance of the MNC.

In Chapters 4-6 several observations were made and major conclusions drawn regarding the effective design and use of individual coordination and control instruments. These conclusions are not reviewed here. Instead, the reader is referred to the section which describes and analyzes the specific system or instrument of interest.

In this chapter we are concerned with the summary of some broader conclusions and hypotheses which can be drawn from the study. The importance of the context and the interrelationships among control systems as determinants of the need for and mode of coordination and control of the foreign subsidiaries is briefly summarized in the first section below. In the second section we discuss the importance of the total configuration of control systems for the mode of managing the relationships and for the performance of the firm. In the third and final section some managerial implications of the research results are briefly summarized.

THE DETERMINANTS OF HEADQUARTER-SUBSIDIARY RELATIONSHIPS IN MNCs

It was shown in the previous chapters how the environment and strategy of the MNC influence both the need for coordination and control of the foreign subsidiaries and the design and functioning of the various coordination and

control systems. The influence of the environmental and strategic context was observed by analyzing and comparing the control systems in the MNCs investigated. It was also observed that MNCs facing a similar context exhibit strong dissimilarities in the design and functioning of the various control systems (cf. Chapters 4-6) and in the mode of managing the relationships (cf. Chapter 7). These observations raise the question of what are the determinants of headquarter-subsidiary relationships in MNCs.

The importance of this question can only be appreciated when viewed in light of earlier research contributions. As noted in Chapter 2, among organizational theorists the advancement of the contingency theory of organizations led to a recognition that the characteristics of the environment strongly influence organization structure and process. In order to be effective and high-performing, the organization has to adapt its structure and functioning to the requirements imposed by its environment.

The advent of the contingency theory was followed by an intensive search for the relevant contingencies or contextual variables which could explain and predict the designs of organization structure and process as well as to prescribe efficient design strategies. Needless to say, this also led to a heated and continuing debate among organizational theorists regarding the relative importance of different contextual variables. Variables such as organization size, technology, interdependence and uncertainty have all at some point in time been advanced as the major determinant of organization structure and process (cf. Chapter 2).

The pioneering work of Chandler, followed by others, subsequently led to a recognition that structure and process are not only related to contextual variables in a more or less deterministic fashion, but are also strongly influenced by the strategy of the firm and its managers.

In line with earlier research we are able to conclude from this study that the environment and strategy of the MNC strongly influence the *need for coordination and control* of the foreign subsidiaries. This is of interest as few earlier studies have explicitly focused on MNCs and shown the nature of this influence. Contrary to many other studies, our research results show that although the context of the MNC also influences the *mode of managing headquarter-subsidiary relationships*, this influence is by no means deterministic, direct or unidimensional.

The observed influence of different contextual factors on the need for and mode of managing the relationships can instead be summarized as follows. First, the research results indicate that no single contextual factor can alone explain the need for and mode of coordination and control of the foreign subsidiaries. Rather, different contextual factors seem to reinforce or to mediate the relative influence of others. Secondly, it is likely that the relative influence of any contextual factor is not stable over time.

The results point out the necessity of analyzing the context of the MNC, not in terms of single factors but as a whole. The relative influence of a single factor is consequently of little interest if its associations with other dimensions of the environmental and strategic context are not taken into consideration. For example, technology seems to have little explanatory value if its associations with the market structure and the MNC's competitive and manufacturing strategy are not recognized.

Once these findings are noted, the controversy among organizational theorists regarding the relative importance of different contextual factors may partly be resolved.

It may be of interest here to briefly summarize the results of this research regarding the relative influence of some specific contextual factors, since this subject

has attracted considerable attention in earlier studies. Of course, the importance of looking at the environmental and strategic context as a whole should not be neglected.

This research indicates, among other things, that various forms of inter- and intra-organizational interdependence have a strong bearing upon the need for and mode of coordination and control of the foreign subsidiaries. For example, the more interdependent MNCs investigated use more numerous and elaborate integrative devices compared to the highly diversified firms included in the sample (cf. Chapters 4-6). Although this finding corroborates earlier research (cf. Chapter 2), it is interesting to note that interdependence may take many forms and that all forms may not be equally important for explanatory purposes (cf. Chapter 3).

The intra-organizational interdependence created by the competitive conditions in the industry in which the MNC operates, the customer structure, the technologies and manufacturing strategy of the firm seem to be of particular importance as a determinant of coordination and control needs. The research also points out the importance of the nature of competition and the competitive strategy of the MNC. These dimensions of competition seem to be more important than the intensity of competition to explain the need for and mode of coordination of the subsidiaries (cf. Scott, 1973; Franko, 1976).

This study indicates that contextual factors like size and operations technology are of little value for explaining headquarter-subsidiary relationships in MNCs. We have not found any strong associations between these two factors and the need for and mode of coordination and control. It is likely that the importance of organization size diminishes when certain critical levels of size are passed. All the MNCs investigated are large. Similarly, operations technology has little explanatory value in this sample,

as all firms are large and have diversified their product portfolios to a certain extent. It should be noted though that these two factors as well as others may still be important determinants of organization structure and process at lower levels of analysis than that employed in this study, e.g. at the departmental level.

Consequently, in discussing the importance of individual factors, it is necessary to recognize that the strength and direction of associations between any specific contextual factor and organization structure and process can be highly dependent on both the unit and level of analysis. This has not always been recognized in earlier research, thereby adding to the controversy among organizational theorists mentioned above. We can conclude from this study, however, that neither any single factor nor the context of the MNC as a whole can fully explain the mode of coordination and control of the foreign subsidiaries. Furthermore, the influence of the context is by no means unidimensional. This was evidenced by the fact that MNCs which face a similar environmental and strategic context and have a similar performance still exhibit great dissimilarities in the design and functioning of the total configuration and in their mode of managing headquarter-subsidiary relationships.

For example, why does company I rely more on the organizational and administration control systems, while company II facing a similar context primarily relies on the social systems to coordinate and control its subsidiaries? Why has company III adopted an organization structure with global product divisions, while companies I, II and IV have not? This difference exists even though company III is less diversified and of approximately the same size as the others. Why do the foreign subsidiaries in company V regularly submit more than fifty financial reports when the subsidiaries in company VI have to submit fewer than

ten reports? Given the strategic and structural similarities between these two MNCs, we would expect that headquarters in both have the same needs for structured financial information.

These observations are of interest as they contradict many of the conclusions advanced in earlier studies (cf. Chapter 2). We would expect to find, given earlier research results, that MNCs facing a similar context would adopt the same modes of coordination and control, or to exhibit differences in performance levels. We have not found any clear relationships of this kind. This contradiction can be partly or wholly resolved by the observations made in this study that interrelationships exist among different instruments, procedures and processes used to coordinate and control the subsidiaries. By analyzing in great detail the design and functioning of the total configuration of control systems, it was found that different systems and subsystems may complement or substitute for others. Consequently, the internal balance among control systems within the total configuration may differ, thereby also changing the design and functioning of the configuration and the mode of managing the headquarter-subsidiary relationships. In other words, the existence of interrelationships among systems implies that the need for coordination and control of the foreign subsidiaries may be met by different means, seemingly without directly affecting the performance of the MNC.

THE MODE OF MANAGING HEADQUARTER-SUBSIDIARY RELATIONSHIPS AND COMPANY PERFORMANCE

In Chapter 7 we described and analyzed how different coordination and control systems may complement and substitute for others, as well as how the design and functioning of the total configuration of systems influence the mode of managing the headquarter-subsidiary relationships. We

will in this section briefly summarize the major implications of this finding.

The possibility that one system may complement and substitute for another implies, as noted above, that the design and functioning of the whole set of systems in the MNC, i.e. the total configuration, may also differ in otherwise similar firms.

It was observed that because of interrelationships within the total configuration, the design and functioning of one system or subsystem may influence the functioning of others. The research indicates that this influence may take several forms. First, the functioning of one system can be reinforced, supported or even replaced by the design and functioning of another system. Second, the design and functioning of one system may also prevent other systems from functioning as desired. The total configuration can then be said to be internally inconsistent. This was the situation in companies II and III described in Chapter 7.

These observations led us to hypothesize that required or desired changes in organization structure and processes may be supported and speeded-up if interrelationships among systems are recognized and managed in a conscious fashion. The organization can then be developed more continuously, and resistance to change, as well as stalled changes of organization structure and process, may thereby be avoided.

It cannot be excluded that the functioning of different systems may adapt more or less automatically to the functioning of other systems. Adaptive changes within the total configuration may take place as more or less natural organizational processes, i.e. without requiring deliberate actions by management. If this hypothesis holds, it implies that internal inconsistencies in the total configuration to a certain extent would be self-correcting. For example, an inadequacy in the design and functioning

of one system may be automatically compensated for by changes in the functioning of other systems. It was hypothesized that the limits of such automatic corrections, as well as the degree of system complementarity and substitutability are dependent on the requirements imposed on any system by management and the inherent flexibility of the system itself to change its functioning without necessitating changes in its design.

The research results indicate that different systems exhibit different degrees of inherent flexibility. The situation in company II points to the fact that many of the social systems can be flexible and powerful substitutes for more developed organizational and administrative systems. The results also indicate that many informal systems, e.g. systems with less well-structured and explicit design are more flexible in terms of their ability to adjust functioning and complement or substitute for other systems. On the other hand, it may be more difficult and time consuming to change the fundamental design of these systems compared to more formalized systems in face of new strategic and environmental requirements.

The recognition of interrelationships among systems implies that management may tune the design and functioning of the total configuration to present strategic objectives and environmental requirements, as well as to those objectives and requirements expected to prevail in the future. This ensures that the design and functioning of the total configuration become both internally and externally consistent. By external consistency we mean that the design and functioning of the total configuration is consistent with the coordination and control requirements imposed by the environment and strategy of the firm.

This warrants some explanation, however, as no clear relationship could be observed between the design and functioning of the total configuration and the performance of the MNC (cf. Chapter 7). We would expect that any form of external inconsistency would negatively affect performance. The lack of such an association clearly raises the question whether it is unimportant and only a matter of choice how the MNCs design and use the various coordination and control systems to manage headquarter-subsidary relationships.

For two very different reasons we would argue that the answer to this question is definitely no. The first reason is based on methodological problems. From a methodological perspective it is very difficult to establish valid correlations between organization structure and process, and performance. The problems are due, among other things, to the existence of uncontrollable extraneous variables, interdependence among variables, and difficulties in properly defining and measuring both organization structure and process, and performance. The numerous attempts of this nature in earlier research may be appealing and intuitively logical, but all exhibit methodological weakness of this kind. It is therefore not surprising that we also find contradictory evidence in earlier research (cf. Chapter 2).

For our research results this implies that the observed lack of direct association between the total configuration, the mode of coordination and control of the foreign subsidiaries and company performance (in firms facing a similar context) may be due to methodological shortcomings. Although the research results strongly indicate that no direct association exists, we cannot completely exclude a correlation of this kind. In case a direct association exists, decisions regarding the design and functioning of the total configuration of course become highly relevant and important.

The lack of direct correlation does not imply, however, that no indirect association may exist. The research results indicate that the design and functioning of the total configuration influence the ability of the MNC to change the mode of coordination and control in face of new environmental and strategic requirements. We argued in Chapter 7 that if the total configuration is not externally consistent, i.e. not adapted to fit the environment and strategy of the MNC, this may negatively affect at least the long-run performance of the firm. In the face of environmental changes and strong competition, the capability of the MNC to reorient its strategy and operations depends largely on its ability to adjust its organization structure and processes in a flexible manner. Consequently, seen from this perspective, the design and functioning of the total configuration become important for preserving and improving the strategic capability and operative flexibility of the firm. The design and functioning of the total configuration and the mode of managing headquarter-subsidiary relationships may influence not only economic performance and growth, but also the long-run continuity and survival of the firm.

IMPLICATIONS FOR MANAGERS

The purpose of this section is briefly to summarize the major managerial implications of this study. It is hoped that this study may be of importance and value for managers in MNCs and other practitioners working with or interested in this type of firms. It is also worth noting that although this study has focused on coordination and control of foreign subsidiaries in MNCs, many of the results are likely to be applicable also to other types of large and complex firms. The management of corporate and divisional relationships in divisionalized firms exhibits many similarities with this area of study.

Since this research incorporates several different perspectives and areas of study, a summary of all the findings would be too lengthy. Instead, we have chosen to briefly state some of the managerial implications of the various parts of the study, and to give references to where these can be found in the previous chapters.

In Chapters 4-6 this study gives a detailed account of the design and management of different instruments, procedures, and processes of coordination and control of the activities of foreign subsidiaries in MNCs. The description of these instruments may be of interest as reference material and as a basis of comparison. The analysis of the various instruments may also give insights into how to develop, design and manage similar coordination and control systems in other firms.

The chapters are structured as follows: Chapter 4 contains a description and analysis of organizational and control systems such as the design of organization structure, allocation of line and staff responsibilities, and the role of the board of directors in the foreign subsidiaries.

Chapter 5 contains a description and analysis of international planning, budget and financial reporting systems, i.e. the administrative systems. The design of efficient budget processes and goal-setting procedures for foreign subsidiaries are among the matters discussed in this chapter.

Chapter 6 is concerned with various aspects of the management of the MNC's human resources such as recruitment and transfer policies, as well as the design of reward and punishment systems. Other social systems like the development of corporate cultures and the formation of coalitions are also discussed in this chapter.

This study shows that the environment and strategy of the firm strongly influence both the need for coordination and control of the foreign subsidiaries (cf. Chapters 2 and 6) and the mode of managing headquarter-subsidiary relationships (cf. Chapters 4-7). The more specific nature of this influence can be traced in Chapters 3-6, where the design and management of the control systems is compared and analyzed in the six MNCs investigated.

The comparative analysis indicated that in designing control systems and managing the headquarter-subsidiary relationships, the characteristics of the environment and strategy of the firm must be explicitly recognized. Otherwise it is likely that less effective control procedures are developed. Similarly, through recognizing how the environment and strategy of the MNC influence the requirements for coordination and control of the foreign subsidiaries, the design and management of various control systems can become more precise and better fitted to the strategy of the firm. The identification and analysis of environmental and strategic variables which influence the need for and mode of coordination and control may be of help when similar analyses are conducted in other settings. The research shows that it is important to understand how environmental and strategic variables interact. Without such an understanding it is less likely that the control systems will be effectively designed and managed.

This research also indicated that different coordination and control instruments may substitute for or complement others. This has some far-reaching managerial implications. First, these findings mean that the design and functioning of one control system or instrument may affect other control instruments as well. Consequently, the various control instruments cannot be seen in isolation.

Second, it implies that a desired change in the design and functioning of one control instrument may be reinforced and supported by other instruments, or on the other hand, prevented by unintended changes in the functioning of other instruments. It may therefore be a fruitless task to try to develop and redesign one instrument for coordination and control if its relationships with other instruments are not recognized. If an inadequacy in the design or functioning of a particular system is identified and corrective actions are undertaken by management to change the system, this step may produce no results if not supported by changes in other systems, too.

We have therefore argued that it is the design of the whole range or set of systems, i.e. the total configuration, which is of importance for the mode of managing headquarter-subsidary relationships, rather than the design and functioning of any single coordination and control instrument. The major objective is to design a configuration which is internally consistent, as well as consistent with the environmental requirements and strategic objectives of the firm (cf. Chapter 7). To achieve this, corporate management can make use of the whole range of instruments to support and reinforce a desired change in the mode of managing headquarter-subsidary relationships. Resistance to change, as well as stalling of changes in organization structure and process, may thereby be overcome and avoided.

We have also argued that any form of inconsistency in the design and management of the whole set of control systems may negatively affect the performance of the firm. Inconsistencies may reduce the capability of the MNC to reorient its strategy, structure and functioning in the face of environmental changes and new requirements. Such a capability may be necessary for survival and continuity

if the firm is confronted with rapid environmental and technological changes, fierce competition, and stagnating markets. Seen from this perspective, the mode of managing headquarter-subsidary relationships is of critical importance for the performance of the MNC.

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