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From M-form to N-form:

The Structure of Multinational Corporations

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Abstract: The purpose of this study is to map, illuminate and explain the recent development of the strategies, structure and control of multinational corporations. The aim is to identify crucial problems in managing and organizing multinational corporations and describe what sort of approaches are used and proposed to solve these problems.

This is a literature study where an inventory and critical examination of the recent research on the strategies, structure and control of multinational corporations. The emphasis in the study is on research carried out in the last ten years. It starts out with a summary of the early research on multinational corporations, proceeds to an analysis of the process school, and ends up with a discussion about organizing international operations from a network perspective.

Key-words: MNC, multinational structure, international, strategy, transnational, subsidiary, global.

JEL-code: M1, M19

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Introduction

Along with many other business schools, School of Economics at Göteborg University has been critized for focusing research and teaching too much on large industrial companies.

However, starting up the Master in International Management Program in the recently formed Graduate Business School, we found that our knowledge of the recent development of the large firms, particularly the multinational corporations, was limited. In recent years, a large number of studies of public institutions, service and knowledge enterprises, small firms and non-profit organizations, almost all directed towards domestic operations, have been made but very few organizational studies of large industrial companies and multinational corporations.

The shortage of research on multinational corporations should not, however, come as a surprise. According to Ghoshal and Westney (1993) organization theory and the study of the MNC (multinational corporations) have not yet had a particularly close relationship:

"With the possible exception of contingency theory, no paradigm from the major theories about organizations and environments has had a major impact on the study of the multinational enterprise, and no research on MNCs has drawn significant attention from organization theorists." (p. 1)

Since the purpose of the Master in International Management Program very much is to prepare the students for a career in multinational corporations, this appears to be a quite serious lack of knowledge. The natural way to remedy this lack is to see that research is started within this area and that this research gets a long-range character.

Consequently, within the frame of GBS, a first step in this direction is taken by making a literature study and put together the most important results of the research on the development of the structures and strategies of the multinational corporations.

Purpose

The purpose of this study is to map, illuminate and explain the recent development of the strategies, structure and control of multinational corporations. The aim is to identify crucial problems in managing and organizing multinational corporations and describe what sort of approaches are used and proposed to solve these problems.

The first part of the project is an inventory and critical examination of the recent research on the strategies, structure and control of multinational corporations. The emphasis in the study is on research carried out in the last ten years. In this way a knowledge base is created which can be used in teaching within GBS as well as basis for further research.

The Early Research on Multinational Corporations

The earliest studies of MNCs were strongly influenced by the economics paradigm with the focus on offshore manufacturing. In the first major research project on multinational corporations at Harvard in the late 1960s, a multinational was defined as a firm that had production facilities in several countries, a definition which became standard in the early international management literature (Ghoshal and Westney, 1993).

The second stream of research on the MNC has its origin in the strategy–structure paradigm. According to Bartlett and Ghoshal (1993), the main contributors to the theory of the classic M-form, the multidivisional organization, were Alfred Chandler (1962) at MIT, Joseph Bower (1970) at Harvard Business School, and Richard Cyert and James March (1963) at Carnegie Mellon.

The landmark studies within this paradigm, such as Perlmutter (1969), Stopford and Wells (1972) and Franko (1976), typically focused on developing a classification of MNC structures and on the problem of control of headquarters over national subsidiaries.

Structure follows strategy

It is obviously no overstatement to suggest that Chandler laid the foundation of the modern international management research. In his classical book ”Strategy and Structure”, Chandler (1962) portrayed the multidivisional organization which emerged in the 1920s and became the dominant corporate model in the 1960s. He distinguished four key growth strategies and showed how each strategy caused specific administrative inefficiencies and therefore led to different organizational structures. On the basis of a historical study of seventy of the largest companies in USA, Chandler stated that:

1. Structure follows strategy
2. Strategies and structures develop in certain sequential stages
3. Organizations do not change their structures until provoked by inefficiencies

The sequence in which organizations grow and develop starts with the creation of a new strategy, continues with the emergence of new administrative problems and decline in financial performance and ends with the invention of a new organizational structure and subsequent recovery of profits.

The initial growth strategy was *volume expansion* creating a need for an administrative office; next strategy was *geographic dispersion* resulting in multiple field units. The third strategy, *vertical integration*, led to a functional organization.

After passing through stages of volume expansion, geographic dispersion and vertical integration, companies finally grew by *product diversification*, experienced adminstrative problems within the functional structure and converted to the M-form, the multidivisional structure, to regain profitability.

Stopford and Wells's international stages model
Chandler's proposition that structure follows strategy was given strong support in the first major study of multinational firms, in which Stopford and Wells (1972) concluded:

"We found that a close tie between strategy and structure exists regardless of what industry the firm is in; managers in enterprises following similar strategies in quite different industries have developed similar organizational structures and ownership policies." (p. 5)

However, they did not believe unconditionally in a simple relationship where strategy always and exclusively precedes structure; the reverse order is found too: *"Once set up, the organizational structure almost certainly influences the choice of strategy of the multinational firm."* (p. 5)

Their study of 187 American worldwide companies with production in at least six foreign countries resulted in a model showing that multinational corporations typically adopt certain structures at different stages of international expansion. The principle variables describing the stage of international expansion are (1) foreign product diversity, i.e. the degree of diversity among products sold abroad and (2) foreign sales as percentage of total sales.

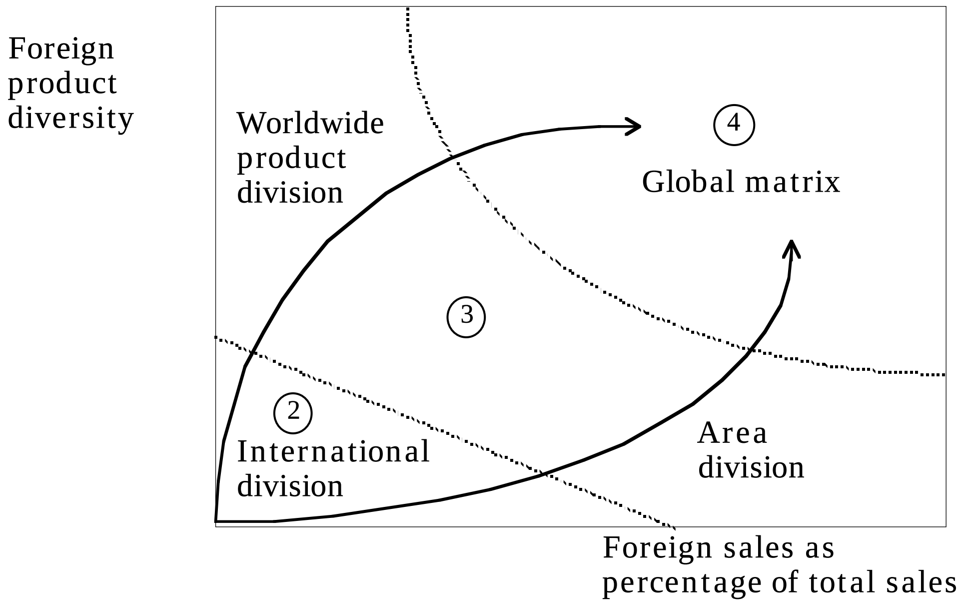


Fig: The International Stages Model, adapted from Stopford and Wells (1972).

Initial stage: Most international firms go through an initial period with relatively autonomous foreign subsidiaries which are tied to the parent company by loose financial links in a way similar to a holding company.

Second stage: This unstructured system of subsidiaries can be tolerated for some time, but if the subsidiaries grow rapidly and accumulate resources, pressures to increase control emerge at the headquarters. In this situation American companies typically set up an international division in which the foreign subsidiaries are brought together. All foreign activities and international expertise are concentrated to this division.

Third stage: As the international division increases in size, pressures to increase control rise again at the headquarters. Top managers recognize a need for a worldwide perspective and, thus, a need for a global structure. When the foreign product diversity increases, companies take on a worldwide product division structure. Firms that expand foreign sales without increasing product diversity typically adopt an area division structure.

Final stage: When both foreign sales and foreign product diversity are high, some companies adopt a new structure, the global matrix or ”grid structure”.

The international stage model is descriptive, but was soon applied in a prescriptive way by consultants and managers. In many cases, structure seemed to follow fashion rather than strategy.

Franko: European multinationals do not follow the same pattern

A few years later Franko (1976) made a study of the 85 largest industrial firms in Continental Europe and found a pattern of development quite distinct from that found by Stopford and Wells. Instead of using the international division structure as an intermediate form, most European multinationals went directly from the parent-subsidiary structure to a global product structure. In contrast to the American multinationals, the European multinationals also maintained highly personalized relations with their foreign subsidiaries throughout the growth and spread of their international operations:

”Nevertheless, at the beginning of the 1970’s, the most important bonds between center and periphery in European multinational systems were still the personal relationships between presidents of parent companies and presidents of foreign ventures.” (p. 187)

This personal nature of relationships between the parent company and the subsidiaries became known as the *mother-daughter* form of organization. By that time it was the most common international organizational form in Continental Europe, used by firms with many as well as few foreign production units.

American multinationals often used president-to-president relationships similar to the mother-daughter form in early stages, but most of the firms abandoned this structure before establishing their fifth foreign production unit (Stopford and Wells, 1972).

”The contrast could not be more complete between the management practices of the Continental European multinationals using the mother-daughter form and the archetypical American multinational with job descriptions, ‘bibles’ of rules, and frequent use of local nationals as foreign subsidiary presidents.” (Franko, 1976, p. 190)

In Franko’s words, the mother-daughter form was less a structure based on formal rules and procedures than it was *”a structural surrogate based on career, social, friendship and family ties.”* (p. 189) The European managers typically described their organizations using analogies of Roman or feudal control systems: *”Like Roman proconsuls sent out to govern the colonies after being educated as good Romans,* *subsidiary managers in many Continental firms were given foreign responsibilities only after years spent absorbing the values and practices of the parent company.*" (p. 190)

The socialization of the subsidiary managers was facilitated by the fact that many were expatriates, often from families long-established in headquarters' cities. Mostly, formal control systems were seen as unnecessary, since headquarters managers could usually predict how their subsidiary managers would act. Consequently, within clear but unwritten constraints, subsidiary managers were often granted a high degree of autonomy. Some companies could achieve almost total worldwide standardization of product, financing and personnel policies without any formal system.

"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." (p. 191)

There are several reasons for the lengthy use of the mother-daughter structure by Continental multinationals, despite considerable geographical spread and product diversity. One partial explanation was the habit of European managers to spend all their working life in one firm. A major reason was the separation of national markets by trade barriers eliminating most possibilities of production specialization among foreign subsidiaries and thus minimizing the need for cross-border communication about delivery times, transfer prices and product specifications.

The European multinationals with the largest operations in the United States, such as Philips and Ciba, led the change from the mother-daughter form to worldwide structures. The reason for this order was the high level of competition in the American market, forcing out structures with more efficient international communication channels.

Increasing competition in Europe in the late 1960's made more multinational companies follow the route to worldwide structures. In contrast to American multinationals, the European firms typically avoided the international division stage, going directly from the mother-daughter form to a "supranational" or worldwide structure. However, this change occurred only after having achieved a large geographical spread of international production.

A similar pattern was observed in Scandinavia, where the multinationals retained the mother-daughter structure until the 1970's and then went straight to the worldwide product structure (Hedlund and Åman, 1984).

Perlmutter's classification of multinationals
One of the classical articles, influencing the international management research for decades, is "The Tortuous Evolution of the Multinational Corporation" by Howard Perlmutter (1969). In particular, his work builds a bridge between the early research and the "process school" (see e.g.,Hedlund, 1986).

In contrast to most theories in the international field, Perlmutter's typology of multinational corporations is based on managerial attitudes. He identified three primary attitudes, or states of mind, toward building a multinational firm among international executives:

- The ethnocentric or home-country attitude
- The polycentric or host-country attitude
- The geocentric or world-oriented attitude

These attitudes never appear in pure form; there is some degree of ethnocentricity, polycentricity or geocentricity in all firms.

In *ethnocentric* firms, policies, standards and performance criteria are deveoped at the headquarters and applied everywhere in the world. The communication process is dominated by a flow of orders and advice from the headquarters to the subsidiaries. For key positions, all over the world, people of home nationality are selected and trained; foreigners do not count.

In *polycentric* firms, it is assumed that host-country cultures are different and foreigners difficult to understand. Consequently, subsidiaries should adapt to the host-country conditions and establish an as local as possible identity. Like confederations, polycentric firms are loosely connected groups of quasi-independent entities, typically held together by financial control systems. For a long time, European multinationals frequently used the the polycentric model, selecting a strong, trustworthy local national of the "right" family as subsidary manager.

At headquarters in polycentric firms, it is assumed that standards and performance criteria must be different in different countries and adapted to local conditions. The subsidiaries are assigned a high level of autonomy, as long as profits are satisfactory. The flow of information between headquarters and subsidiaries and between subsidiaries is low, and local managers can not expect to advance to senior positions at headquarters.

In *geocentric* firms, beginning to emerge at an accelerating rate, the subsidiaries are neither satellites nor autonomous actors, "but parts of a whole whose focus is on worldwide objectives as well as local objectives, each part making its unique contribution with its unique competence." (1969 p. 13)

Aiming for a worldwide approach in both headquarters and subsidiaries, the geocentric firm attempts to build an organization where the subsidiaries are not only good citizens but also leading exporters of the host country, contributing to benefits such as increased hard currency, new skills and advanced technology. Subsidiary managers should ask themselves where in the world they could get the best assistence serving the customers of their country and where in the world products developed in their country could be sold.

Superiority is not equated with nationality – the best men are sought, regardless of nationality, to solve problems anywhere in the world. Headquarters and subsidiaries cooperate to establish universal standards and performance criteria, at the same time allowing local variations. There is a high flow of informations in all directions, between headquarters and subsidiaries and between subsidiaries.

As most important external forces toward geocentrism Perlmutter mentions the growing world markets, increasing availability of managerial and technological know-how in different countries, global competition and international customers, advances in telecommunications and regional political and economic communities.

Important forces within firms are increasing desire to use human and material resources optimally, lowering of morale owing to ethnocentric practices, waste and duplication of resources due to polycentric thinking, increased awareness of qualified people of other than the home nationality and, in particular, top management's commitment to building a geocentric company.

Porter: Patterns of International Competition

In his article ”Changing Patterns of International Competition”, Michael Porter (1986) presents his Configuration/Coordination framework, ”one of the two dominant models of international strategy developed in the 80’s” (Taggart, 1998 p. 24) – the other one being the Integration-Responsiveness grid by Prahalad and Doz (1987).

The article is focused on the connectedness among country competition – how a firm’s activities in one country affect or are affected by activities in other countries. The question Porter seeks an answer to is what particular issues international competition in contrast to domestic raise for competitive strategies.

The pattern of international competition differs significantly from industry to industry, ranging from *multidomestic* industries in which competition in one country is independent of competition in other countries to *global* industries in which competition in one country is affected by competition in other countries.

Multidomestic industries are present in many countries but the competition takes place on a country-by-country basis, such as in retailing, consumer packaged goods and insurance. In these industries, companies may draw on a competitive advantage resulting from a single transfer of knowledge developed in the home country. However, since the intangible assets are modified and adapted according to the conditions in each country, the competitive advantage of a company is often specific to each country.

In a multidomestic industry, the firm’s strategy should be adapted to the local conditions of the country; this is what Porter calls a ”country-centred strategy”. The international activities should be managed like a portfolio, where each subsidiary should be granted a high degree of autonomy and control all activities necessary to do business in the industry. The important competitors are either domestic companies or multinationals competing on a country-by-country basis.

Global industries, such as airlines, copiers and automobiles, consist of a number of connected domestic industries in which the companies compete against each other on a worldwide basis. To achieve competitive advantage, firms must in some way integrate its activities on a worldwide basis.

Firms competing in global industries must decide how to spread the different activities in their value chain among countries. Downstream activities, such as marketing, sales and service, are usually tied to the location of the customers. This means that competitive advantages created in downstream activities are often country-specific, such as reputation, brand name and service network. In these circumstances, a multidomestic pattern of competition usually develops.

Upstream and support activities, such as operations and technology development, are easier to separate from where the customers are located. Competitive advantages in these parts of the value chain often derive from the whole system of countries in which the company is active. Consequently, in this case global competition is more common.

Porter classifies the ways in which firms compete internationally by means of two dimensions:

- The *configuration* of a firm's activities worldwide – where in the world and in how many places each activity in the vaue chain is performed, ranging from concentrated (performing an activity in one country and serving the world from it) to dispersed (performing every activity in each country).
- The *coordination* of a firm's activities worldwide – how similar activities in different countries are coordinated with each other, ranging from none to very high.

Regarding production, for example, the most important configuration issue is where and in how many places components and end products are manufactured. The coordination issue deals with to which degree different plants are coordinated by using the same technology, the same materials and the same information system.

Coordination of activities	Geographically dispersed	Geographically concentrated
High	High foreign investment with extensive coordination among subsidiaries	Purest global strategy
Low	Country-centred strategy by multi-nationals with a number of domestic firms operating in only one country	Export-based strategy with decentralized marketing

Configuration of activities

Fig: Types of international strategies (Porter, 1986, p. 19).

Thus, a firm in which the configuration of activities is geographically dispersed and the level of coordination is low pursues a country-centred strategy. This means that in every country, in which the firm is operating, there is an entire value chain. The extreme case is the domestic firm operating only in one country. Moving diagonally across the diagram from this point, strategies become increasingly global.

The opposite strategy, a purest global strategy, is pursued by a firm with a geographically concentrated configuration and a high level of coordination. This means that the firm seeks to concentrate as many activities as possible in one country, serve the world from this base and tightly coordinate those activities that must be performed close to the market.

Consequently, there is no such thing as one global strategy. Porter defines the global strategy of a firm as a choice of a certain combination of configuration and coordination of its international activities:

"A global strategy can now be defined more precisely as one in which a firm seeks to gain competitive advantage from its international presence through either concentrating configuration, coordination among dispersed activities, or both." (1986, p. 20)

Porter emphasizes that international strategy is not a simple choice between global integration and local responsiveness. There are many possible combinations of configuration and coordination of the activities throughout the value chain; a firm may standardize (or concentrate) certain activities while tailoring (or dispersing) others at the same time.

The balancing of configuration and coordination varies over time. Concentrating activities has become less necessary for economic reasons and less possible due to increased demands from governments for dispersion. The possibilities of global coordination has increased dramatically through modern technology. At the same time, the need for coordination increases to reconcile greater dispersion and to respond to customer needs. Porter states that today (1986) global strategy seems increasingly to be matter of coordination; production and R&D becoming more and more dispersed and greater need for coordinating marketing activitivites worldwide.

The Process School: Toward a New Managerial Theory of the Multinational Firm?

Dominating the international management arena since the middle of the 1980s, Christopher Bartlett, Sumantra Ghoshal, Yves Doz, C. K. Prahalad and Gunnar Hedlund, scholars of the 'process school', not only maintain having discovered the emergence of a new organizational model but also claim having contributed to a new paradigm and a new managerial theory of the multinational firm (Bartlett and Ghoshal, 1993; Doz and Prahalad, 1991; Hedlund and Rolander, 1990).

Common denominators of the 'process school' are the mistrust of unidimensional structures, the search for flexible solutions, a preference for cultural control and the recommendation of more subtle coordination mechanisms (Schütte, 1998). According to Ghoshal and Bartlett (1995), the traditional strategy-structure-systems doctrine should be replaced by a 'purpose-process-people doctrine'.

ABB – the corporate model of the next century?

In an article in the exclusive Mastering Management series of Financial Times, leading multinational researchers Christopher Bartlett and Sumantra Ghoshal compare Percy Barnevik of ABB to Halley's comet and claim that he should be recognized as having invented a new corporate form,

"...a fundamentally different model of how a large company can be organized and managed, just as Sloan did 75 years ago. There is something special about 75 years. That is approximately how long time it takes for Halley's comet to return for its next visit to the earth's atmosphere." (Mastering Management, February 5, 1998)

In their article "Beyond the M-form: Toward a Managerial Theory of the Firm", Bartlett and Ghoshal (1993) describe this new organizational model, using ABB as an illustration, as representing a radically new structural philosophy, based on "a principle of *proliferation and subsequent aggregation* of small independent entrepreneurial units from the bottom up, rather than one of *division and devolution* of resources and responsibilities from the top."

According to Bartlett and Ghoshal (1989), large MNCs are converging toward a common configuration, in which increasingly specialized units worldwide are linked into an integrated network enabling them to simultaneously achieve strategic objectives of efficiency, responsiveness, and innovation. They call this new organizational model *the transnational corporation*.

Parallel to the transnational corporation, several similar models have emerged, such as *the multifocal corporation* (Doz, 1986; Prahalad and Doz, 1987), *the heterarchy* (Hedlund, 1986; Hedlund and Rolander, 1990), *the horizontal organization* (White and Poynter, 1990) and *the multi-center firm* (Forsgren, 1990; Forsgren and Johanson, 1992).

These approaches share the general view that multinational structures are becoming less hierarchical. The underlying organizational form of these models varies but seems to share elements of formal and informal matrix management. *"The less-hierarchical MNC operates like a network, beyond the constraints of formal, bureaucratic structures.*

Under such a structure, subsidiary units are highly differentiated and functionally interdependent, which results in complex flows of products, people and information." (Marschan, 1997)

While geographically very dispersed, the subsidiary units are coordinated and controlled particularly through informal mechanisms, such as organizational culture, interlocking board of directors and personal relationships (Hedlund and Rolander, 1990; Marschan, 1997).

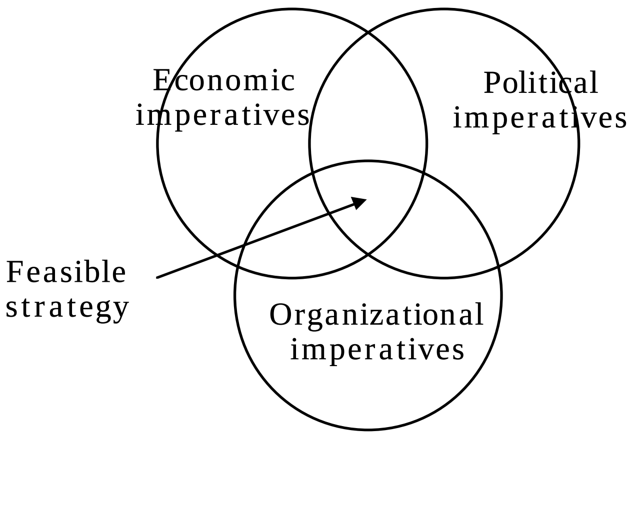
Whether multinationals are in fact moving towards this model is currently being debated; all scholars within the fields of organization theory and international management do not agree with Bartlett and Ghoshal. Among others, Swedish researchers Melin (1992), Forsgren (1992) and Berggren (1996) question their conception of a new emerging model with ABB as a prime example.

According to Melin (1992), the new models require an extremely skillful and powerful top management being able to control all internal forces in a large worldwide corporation. To unite the dispersed MNCs by means of cultural control, a rather monolithic culture seems to be necessary. The underlying assumptions of culture as a variable that can be controlled from the top of the organization are questioned by many students of organizational culture, e.g., Smircich (1983) and Alvesson and Berg (1992).

Balancing responsiveness and integration: multifocal strategy and organization

Within the 'process school', the first large research projects were carried out by Yves Doz and C. K. Prahalad (Doz, 1986; Prahalad and Doz, 1987). Starting in 1974, the project comprised over ten years of in-depth research in more than twenty United States-based, European, and Japanese multinationals.

Six major industries, all exposed to intense economic and competitive pressures for international integration, were analyzed in detail: automobiles, trucks, microelectronics, data processing equipment, telecommunications systems and heavy electrical engineering. The purpose of the studies was to describe the strategic choices open to multinational companies facing tensions between national responsiveness and global integration, to provide a managerial understanding of the strategic choices and to develop a framework for managerial action.



In ”The Multinational Mission”, Prahalad and Doz (1987) introduce a framework defining the main conflicting forces that affect the strategy of a business. First, firms have to cope with the demands imposed by *economic imperatives*, such as technology, economies of scale, factor advantages, and global distribution. Second, competition is distorted by the intervention of host and home governments, i.e. the *political imperative*. Third, the ability of the organization to reallocate resources and adapt to new competitive conditions is labelled the *organizational imperative*.

Until the 1960s, competitive pressures were mild and national markets protected by tariff barriers; a majority of the multinational companies pursued a strategy of *national responsiveness*. Important competitive advantages were unique intangible assets provided to subsidiaries by their mother companies, such as new technology and knowhow not easily available to the local firms (Doz, 1986).

National responsiveness allows the subsidiaries to behave almost as if they were national companies; headquarters seldom intervene in the decision making process of the subsidiaries. Typically, subsidiaries manufacture a relatively complete product range in each country, thereby minimizing intersubsidiary trade.

However, national responsiveness does not eliminate the need for headquarter coordination; certain functions, e.g., financing, R&D, export sales, pricing, purchasing, process engineering and marketing often require central coordination. The success of multinationals over national competitors is based on the ability to exploit common capabilities and knowhow and to coordinate competitive actions across boundaries.

Over time, increasing transfer of technology and other kinds of knowledge weakened competitive advantages based on intangible assets and contributed to the emergence of strong global competitors, particularly in Japan. At the same time trade liberalization removed the tariff barriers protecting most national markets and exposed national industries to renewed international competition. Facing this new global competition, large multinational companies often adopted an *integration strategy*, by which manufacturing costs were reduced by means of specialization.

Doz (1986) defines global integration as the specialization of plants across borders into an integrated multinational production and distribution network. Instead of producing complete product ranges for each national market, the multinational manufactures in each country only part of a common product range, but for the global market. Since key decisions affecting operations in one country also directly affect operations in other countries, integration strategies result in centralized management.

Towards the end of the 1970s, further trade liberalization and lower growth or maturing demand in many industries increased the tension between national responsiveness and global integration. According to Doz (1986), the choice between national responsiveness and global integration can seldom be mutually exclusive. The three most important factors influencing the choice of increasing either global integration or national responsiveness of a particular multinational business are underlying economic and technical characteristics of the business, host country conditions and government policies and the competitive position.

Some firms avoid choosing between national responsiveness and global integration. By selecting a *multifocal strategy* they try to combine elements of both strategies in an ad hoc way. According to Doz (1986), multifocal strategies try to offer something for everyone. They are ambiguous, sometimes exploiting opportunities for integration, sometimes leaving complete autonomy to the subsidiaries.

Prahalad and Doz (1987) introduced ”The Integration-Responsiveness grid” showing how pressures for strategic coordination and global integration and pressures for local responsiveness affect the choice of strategy and organization. Pressures for strategic coordination and global integration derive from:

- Importance of multinational customers
- Presence of multinational competitors
- Investment intensity
- Technology intensity
- Pressure for cost reduction
- Universal needs
- Access to raw materials and energy

And pressures for local responsiveness arise from:

- Differences in customer needs
- Differences in distribution channels
- Availability of substitutes and the need to adapt
- Market structure
- Host government demands

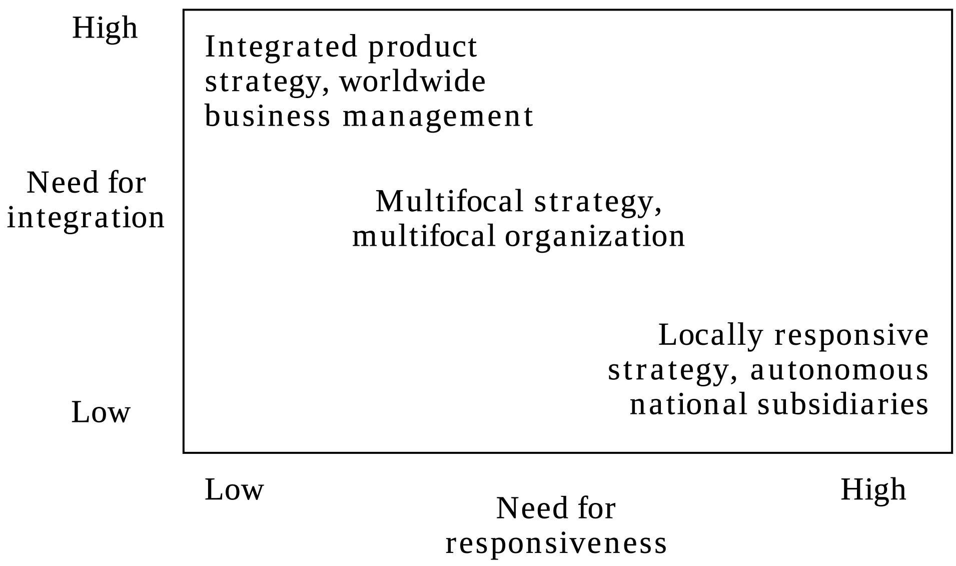


Fig: The Integration-Responsiveness grid: Strategic focus and organizational adaption (Prahalad and Doz, 1987).

According to Prahalad and Doz (1987), managers cannot make a ”one-time choice” of one of the two dimensions. At the same time, they must pay attention to issues requiring global integration as well as local responsiveness. This need for simultaneous integration and responsiveness also must be reflected in the way of organizing the business; a *multifocal organization* is required.

The ideal multifocal organization is not bound by contraints imposed by the formal structure. While the formal structure and systems constitute the skeleton, the ”flesh and blood” and the ”mind” of the organization are supplied by the principles governing the process of management and conflict resolution. These principles are characterized by a pluralism that allows multiple perspectives and differences of opinons, a fluid power structure that allows the ”existing logic” and ”current wisdom” to be challenged and a certain discipline in the organization.

Strategic control is exercised by means of subprocesses of change and a collection of management tools. The subprocesses of change have three dimensions: cognitive perspective, strategic priorities and power allocation. The management tools are of three kinds. The data management tools provide information for critical decisions. The managers' 'management tools' express the rules of the game shaping perceptions and expectations. The conflict resolution tools are used for managing the trade-off between priorities of global integration and national responsiveness.

Managing across Borders: Multinational Responses to New Pressures

The findings of Bartlett and Ghoshal (1987a; 1989; 1993) draw on two empirical five-year research projects, the first starting in 1984 and the second in the end of the 1980's. Both projects included case studies of American, European and Asian multinationals. The point of departure for the first study of Bartlett and Ghoshal (1989) was the question: *How did multinational corporations respond to the new pressures that the changing dynamics of the competition in the 1980s brought about?*

According to Bartlett and Ghoshal (1987b; 1989), most multinational corporations entered the 1980s not being properly prepared to respond to the new strategic challenges that changes in the business environment had created. In particular, the changes produced three kinds of forces exerting pressures on the companies:

- Forces for local differentiation created a need for increased responsiveness
- Forces for global integration created a need for increased efficiency
- Forces for worldwide innovation created a need for increased learning

Obviously, their point of departure is very similar to that of Doz (1986) and Prahalad and Doz (1987), adding a third force to national responsiveness and global integration.

To examine the multinational responses to these challenges, Bartlett and Ghoshal studied nine worldwide American, European and Asian companies in three industries: consumer electronics, branded packaged goods and telecommunications. They found that, even within particular industries, global companies had developed very different strategic responses to changes in their environment. The nine companies used three different approaches corresponding to the three different forces the international business environment:

- *Responsiveness*. Other companies, such as Unilever and Philips, developed the capability of being very sensitive and responsive to national differences which help them to build strong local presence. These are called *multinational companies*.
- *Global efficiency*. Some companies, especially the Japanese ones, developed a capability of global efficiency. They created cost advantages by centralizing their international operations. These are labeled *global companies*.
- *Transfer of knowledge*.The third group of companies, such as Proctor & Gamble and Ericsson, developed the capability of transferring parent company knowledge to subsidiaries and adapting it to foreign markets. These are labeled *international companies*.

The prescription was based on the idea of fit, i. e., a company should identify the key success factor of the industry and then develop certain capabilities to achieve the right fit. So, in many global industries either responsiveness, efficiency, or knowledge transfer was considered *the* key success factor, and management's task was to develop the corresponding capability to achieve a fit between the dominant strategic requirement of the industry and the organizational capability.

In the consumer electronics industry efficiency was considered the dominant strategic requirement. Matsushita had developed the corresponding capability; Philips and GE had not. In branded packaged products responsiveness was seen as the success factor. Unilever had developed this capability; Kao and Proctor & Gamble had not. In telecommunications it was transfer of knowledge that counted. Ericsson had a fit; ITT and NEC had not.

This focus on just one of these capabilities became a problem in the mid 80s. To be successful, a company now had to develop all three capabilities simultaneously. To be able to do this, companies had to get away from the traditional management methods and take on a new organizational model – the transnational model. According to Bartlett and Ghoshal, this is not a specific strategy or organizational form – the transnational is a new *management mentality*.

A generation of managers believed there was a structural solution to every major strategic problem. To cope with the increasing change and complexity of the 1980s, many corporations chose to restructure, and the solution was there: the global matrix. The matrix should make it possible to balance centralized efficiency and local responsiveness, stimulate multiple perspectives and increase the flexibility.

However, most companies had difficulties with the matrix. Differences in perspectives and interests were reinforced. Even very small differences could cause disagreements and conflicts. There was a lot of communication, discussions and meetings. The result was slow and time-consuming decision-making processes. But the basic problem was that companies, in their search for fit, focused on just one thing – the formal structure. To be competitive, companies had to go beyond structure and expand other organizational capabilities.

In the mid 80's major changes occurred in these industries. The dominance of one strategic demand was replaced by a much more complex set of demands. Companies now had to respond simultaneously to several, often conflicting demands. Now, the task of the manager was not to develop a strategic capability to fit the dominant industry requirement – it was to build multiple sources of competitive advantages that could be managed in a flexible way.

A company's ability to build new strategic capabilities depends on the existing assets and capabilities that it has built up over a long period of time. And these attributes, referred to as the *administrative heritage*, are not easily changed. The way a company can respond to the changes in the environment is constrained by the internal capabilities which are shaped by the administrative heritage. So, companies have to understand the nature of their administrative heritage and develop capabilities that are consistent with their heritage.

The influence of a nation's history, culture and infrastructure is very evident in many British companies. According to Alfred Chandler, most large British companies were dominated by "family capitalism" up to World War II. When these companies expanded internationally, family members or other loyal company servants were sent to take care of the foreign subsidiaries. In Unilever the subsidiaries were controlled by an inner circle of trusted managers who reported directly to William Lever, the founder. In Philips, the Philips family dominated the company up to the 40s, and the foreign subsidiaries were managed by a group known as the "Dutch Mafia".

The administrative heritage also influences the organizational structure, capabilities and management mentalities. This influence is reflected in the three models: the multinational, the global and the international.

The Multinational model was adopted by companies expanding in the prewar period. The configuration can be described as a decentralized federation. The structure fits well with the informal management style family ownership often is associated with.

Top management controls the foreign subsidiaries through their personal relationships with the subsidiary managers. The financial control systems are quite simple and do not check everything in detail. The multinational management mentality regards the foreign operations as a portfolio of independent businesses. Each unit should adapt its strategy and operations to the local business environment.

The Global model was one of the earliest corporate structures. Henry Ford used this model for his massproduction of cars sold all over the world by a very centralized organization. The global model can be described as a centralized hub. The role of the local subsidiaries is to assemble and sell products. They are not supposed to develop new products or strategies, not even to modify existing ones. There is a tight central control of decisions, resources and information.

This model particularly suited the Japanese companies, since it was difficult for them to transfer their special management style to the foreign subsidiaries. Managers in global companies focus more on world markets than managers in multinational and international companies, but they regard them as a single integrated market where similarities are more important than differences.

The International model came into use after the World wars. To these companies it was important to transfer knowledge and expertise to their foreign subsidiaries. The subsidiaries in international companies may adapt products and strategies to the local environment, but they are more coordinated and controlled by headquarters than subsidiaries in multinational firms. The configuration can be described as a coordinated federation.

This is a structure that fit American companies particularly well. They had professional managers at the headquarters who were able to delegate quite a deal of responsibility to the subsidiaries while at the same time control them by means of sophisticated financial systems and controllers. The international management mentality regards the foreign subsidiaries as appendages to the parent company.

The Transnational – the Emerging Organizational Model?

Bartlett and Ghoshal (1987b; 1989) state that managers in most worldwide corporations by now realized that they had to combine the strategic capabilities of the three models. They must at the same time be responsive to local differences, be globally efficient and be able to transfer knowledge.The three models represent different strategic capabilities but also different strategic dilemmas:

- The *multinational* model's strength is the ability to respond to local market needs. The dilemma of the model is that the decentralization and independent behavior of the subsidiaries counteract global efficiency. The transfer of knowledge also suffers from the decentralization; the subsidiaries develop their own knowledge and have little interest in sharing it with other units or learning from each other.
- The *global* model's strength is global scale efficiency. The dilemma is that the subsidiaries are stripped down and carry limited resources, which make it difficult to respond to local market needs. The knowledge development is centralized to the parent company and very little is transferred to the subsidiaries.
- The *international* model is the ability to transfer knowledge and skills from the parent company and adapt them to local needs. The dilemma is that it is less responsive than the multinational model and less efficient than the global model.

The *transnational* company has overcome these contradictions. The problem is defined in another way:

- Local responsivess is important, but mainly for achieving *flexibility* in international operations
- Efficiency is important, not for its own sake, but for achieving *competiveness* in global operations
- Knowledge development and transfer is important, but it is seen in the broader perspective of organizational *learning* including all members of the company

The multinational company is decentralized, the global company is centralized and the international company is something in between the two of them. Instead of either centralizing or decentralizing assets, the transnational company makes *selective* centralization and decentralization.

- Certain resources are centralized at the parent company because of scale advantages or to protect core competences such as basic research. Other typical areas of centralization are the treasury function and international management development.
- Other resources are also centralized, not at the parent company but at one of the subsidiaries. Labor-intensive production may be concentrated to a low-wage country such as Portugal or Mexico. Development and production of high-tech components may be located to Japan or Germany.

- Other resources are decentralized on a local-for-local basis because of the benefits of differentiation and flexibility. Decentralization of critical resources may protect against exchange rate shifts, strikes etc.

Most companies in the Bartlett and Ghoshal study (1989) were converging toward a common configuration, an *integrated network*, that enabled them to simultaneously achieve their strategic objectives of efficiency, responsiveness, and innovation. The strength of this configuration is based on three main characteristics: dispersion, specialization, and interdependence.

The dispersed configuration allows worldwide companies to sense new consumer trends, technological advances, and competitive actions which nowadays can emerge anywhere in the world. The dispersion not only give these firms access to low-cost labor and materials but also access to an international pool of increasingly scarce technological and managerial resources.

By means of specialized operations, transnationals are in a better position to take advantage of new flexible manufacturing technologies and split up the increasingly complex R&D task into focused research areas in different places. Interdependent relationships create the necessary conditions for ther collaborative information sharing and problem solving, cooperative resource sharing, and collective implementation that today's worldwide competitive environment demands.

Transnational companies must respond in a complex way – the customers require differentiated products but at the same low price as standard products. And the responses have to be adapted to frequent changes in tastes, technologies and regulations. A major barrier to the flexibility a worldwide company requires today is the uniform treatment of subsidiaries. It locks management into simplistic and often dichotomous choices and prevents more subtle options.

To be able to respond to a rapidly changing world, the transnational creates a multinational flexibility in many ways. The most important means for achieving this flexibility is differentiation – the task of building specialization into the roles and responsibilities of national subsidiaries.

In some markets standard global products are accepted, and the role of the subsidiary is limited to implementation of central decisions. In other markets customers are more sophisticated, competitors are more active, and technologies are more advanced. Instead of treating all subsidiaries equally, transnational managers adapt the roles and responsibilities of the subsidiaries to the strategic importance of the local environments.

However, it is not only a matter of adapting subsidiaries to particular local environments. Subsidiaries showing the capacity of creative marketing, flexible manufacturing, or innovative development should be used for the benefit of the entire organization.

The research of Bartlett and Ghoshal (1989) does not reveal any clear role assignment among subsidiaries but "suggests a vague but consistent pattern..." This pattern indicates four generic roles that national subsidiaries can play in a transnational organization:

- *Strategic Leader*. Subsidiaries with high competence located in strategically important markets become legitimate partners with the headquarters in developing and implementing strategies.
- *Contributor:* Subsidiaries with high competence but located in a less strategically important market utilize the benefits of certain local facilities or capabilities and apply them to worldwide operations.
- *Implementer*: Subsidiaries with just enough competence to maintain their local operations in a nonstrategic market maintain the commercial viability of the company and generate resources supporting strategic processes. In most companies, the majority of subsidiaries play this role.
- *The black hole:* Subsidiaries located in strategically important markets should be playing the role of a strategic leader but lacks the competence to do so. The black hole is not an acceptable strategic position, but remedies will not come cheap.

Differentiation in subsidiaries' roles is only one part of a broader system of internal differentiation. Businesses, products, and functions are all managed differently, according to national cultures, industry structures and competitive positions. This system of internal differentiation requires a different management mentality to work – a *transnational mentality* .

Managers with a transnational mentality recognize that different parts of the company possess different capabilities and make use of that. Innovations are created both centrally and locally. In many cases central resources are pooled with resources of several subsidiaries to develop a worldwide product. Subsidiaries become strategic partners whose knowledge and capabilities are vital to the whole corporation.

Transnational managers recognize that the key capability is *worldwide learning*, the ability to sense new trends, to respond innovatively, and to diffuse the innovations to all parts of the company. Worldwide learning requires that the company makes use of all possible ways to develop innovative products and processes. The complexity and diversity of the transnational structure can lead to fragmentation and disintegration. To make this organization function, management must do a great deal of integration work:

- First, they must find a way to balance and legitimize the multiple perspectives and capabilities
- Second, to manage the complexity of differentiated roles and responsibilities, they have develop flexible coordination processes
- Third, they must create a shared vision and build commitment into the organization – create a matrix in the managers' minds

Beyond the M-form?

In their second study of multinationals, Bartlett and Ghoshal (1993) focus the research on identifying emerging organizational forms and their logics. The point of departure is very much the same as in the first study; radical changes in the business environment have put a pressure on multinational companies to create new organizational models.

The changes are described in quite dramatic terms. After a period of refinement and incremental progress, new environmental demands in the early 1990s *”were driving changes in strategy, structure, and management that were probably as widespread and impactful as the diversification/divisionalization changes that drove the post-War managerial revolution.”* (1993, p. 24).

To understand these changes and identify emerging organizational forms, Bartlett and Ghoshal studied 18 worldwide American, European and Asian companies in complex and dynamic businesses that were attempting more radical changes, including Swedish firms such as ABB, IKEA and Electrolux. Their findings suggest that multinational corporations are creating a new organizational form, significantly different from the traditional M-form structure.

Bartlett and Ghoshal believe that the management of ABB and other companies they have studied is based on assumptions about organization, decision making and human behavior that are significantly different from those underlying academic theories within the business area, causing a widening gap between existing management theory and emerging management practice.

In the SMJ article ”Beyond the M-form: Toward a Managerial Theory of the Firm” (1993), Bartlett and Ghoshal examine the organizational character of ABB, *”...often cited as a prime example of of the emerging corporate form...”*, from the three perspectives of Chandler (1962), Bower (1970) and Cyert and March (1963). The purpose is to contrast ABB with:

- Chandler’s structural description to distinguish the entrepreneurial process of ABB from that of the M-form
- Bower’s strategic process model to show the difference between the horizontal integration process of ABB and the vertical information process of the M-form
- the behavioral theory of Cyert and March to show how the macrolevel goal-setting and learning mechanisms of ABB complement the microlevel processes in the M-form

The new model presented in the article describes the operations of ABB as seen by its managers and in terms of their roles and tasks. The structure of the organization is defined in terms of three core positons and three core processes. The core positions are the front-line, middle and top-level managers and the roles, behaviors and actions associated with them. The management core processes, each of them structured around the three core positions, are:

- *The entrepreneurial process*, aligning and supporting initiatives
- *The integration process*, linking and leveraging capabilities
- *The renewal process*, creating purpose and challenge

According to Bartlett and Ghoshal, Barnevik’s primary objective for changing the multidivisional structure he inherited was to create an organization which allowed a much wider distribution of entrepreneurial activities. The management roles were redefined to produce an entrepreneurial process, very different from that of the classic M-form.

Front-line Management: Creating and pursuing opportunities	**Middle Management:** Reviewing, developing and supporting initiatives	**Top Management:** Establishing strategic mission and performance standards

Fig: The entrepreneurial process.

The front-line managers, in ABB represented by the heads of the 1.300 operating companies, are the key drivers of the entrepreneurial process. They have left their traditional roles of operational implementors of top-down decisions and become the primary entrepreneurial actors of the company. Each front-line company in ABB is given substantial financial independence by being entitled to retain a third of its net profits and manage its own treasury function,

The middle-level managers, in ABB represented by the business area managers, are no longer acting as controlling supervisors. Instead they have become the foremost supporters and coaches of front-line managers. Top management is driving the entrepreneurial process in the first place by setting broad sets of objectives and stretched performance standards for front-line activities.

The top management role in the entrepreneurial process is exemplified by the group executive of Power transmission, at that time Göran Lindahl. He was building a shared commitment to the ambition of ”conquering the globe in power transmission”, expecting his business area and company managers to develop corresponding business strategies. At the same time Lindahl worked in direct contact with front-line managers, practising a style he called ”fingers in the pie management” in contrast to ”abstract management”, remote control by means of sophisticated report systems.

Front-line Management: Managing operational interdependencies and personal networks	**Middle Management:** Linking skills, knowledge and resources	**Top Management:** Developing and nurturing organizational values

Fig: The integration process

In companies such as ABB, vital specialized knowledge and expertise are spread out through the organization, creating a strong need for a horizontal integration process enabling the entire organization to benefit from the specialized resources and expertise developed in the front-line companies.

In this integration process, middle management plays the key role, driving the process by serving as a horizontal linkage for building, transferring and leveraging capabilities.

To release capacity for managing such horizontal linkages, the demands of vertical communication on the middle managers are reduced by means of formal information systems, intensive informal communication and commitment to system-wide information sharing.

The linkage role of middle management is sustained by top management's development of corporate values and norms supporting and rewarding collaborative behavior. In ABB, top management makes great effort to create a shared corporate identity facilitating the transfer of specialized knowledge and expertise. The first values described in 21-page ”policy bible” is listed as ”Corporate Unity”.

The continued communication of values and norms create an environment encouraging the front-line managers to use the horizontal linkages for building and exploiting operational interdependencies and personal networks. In this way specialized knowledge and expertise are transferred across company and country boundaries and spread out through the organization.

Front-line Management: Managing the tension between short-term performance and long-term ambition	**Middle Management:** Creating and maintaining organizational trust	**Top Management:** Shaping and embedding corporate purpose

Fig: The renewal process

While the front-line managers are the main actors in the entrepreneurial process and middle management is driving the integration process, it is top management that plays the key role in the renewal process by shaping and embedding corporate purpose.

ABB corporate purpose is *”to contribute to environmentally sound sustainable growth and make improved living standards a reality for all nations around the world.”* This broadly expressed purpose is then translated into the more specific objective *”to increase the value of our products based on continuous technological innovation and on the competence and motivation of our employees... becoming a global leader – the most competitive, competent, technologically advanced and quality minded electrical engineering company in our fields of activity.”* The objective is further operationalized in financial peformance terms – 10 percent operating profit and 25 percent return on capital employed.

In the front-line companies, tension arises when managers face the gap between short-term performance and the long-term ambition indicated in the purpose statement. This tension will not be resolved without a high level of credibility and trust; consequently, the key task in the renewal process for middle management is to create and maintain organizational trust.

Over time, the roles of ABB's group executives have changed and become quite different from the classic responsibilities of leadership in the M-form organization:

"From being formulators of corporate strategy, they have become the shapers of an institutional purpose with which all employees can identify and to which they can commit. Instead of being the architects of formal structure, they have come to see themselves as the developers of organizational processes that can capture individual initiative and create supporting relationships. And, rather than being the designers of systems, they have refocused on the individual as the primary unit of analysis in the leadership task and have become the molders of people." (Bartlett and Ghoshal, 1993 p. 40)

According to Bartlett and Ghoshal, managers in ABB and most other companies they studied see large organizations not only as economic entities but also as complex social institutions: *"These managers are replacing the hard-edged strategy-structure-systems paradigm of the M-form with a softer, more organic model built around purpose, process and people."*

Bartlett and Ghoshal criticize organizational theory for being *"increasingly dominated by a remote, reified and pessimistic view of large organizations"*. They refer to population ecology and transaction cost analysis as being remote, population ecology as being overly deterministic, institutional theory as substituting isomorphism for leadership, behavioral theory of the firm as denying purpose and direction and organizational economics as making assumptions about shirking, opportunism and inertia.

In contrast, the new model is grounded in a managerial perspective that is very different from that of existing economic and behavioral theories of the firm. *"It is this managerial perspective that we would like to see legitimated in a new theory of the firm that would focus on the distinctive characteristics of large business organizations and illuminate issues that managers of such firms perceive to be important."* (Bartlett and Ghoshal, 1993 p. 46)

Heterarchies and horizontal organizations

Also being a member of the process school, Hedlund has developed an organization model, *the heterarchy*, fairly similar to the transnational and multifocal structures (Hedlund, 1986; Hedlund and Rolander, 1990). While Prahalad, Doz, Bartlett and Ghoshal very clearly base their statements on the strategy-structure paradigm, Hedlund takes Perlmutter's (1969) typology of multinational firms, based on management attitudes, as point of departure.

According to Hedlund (1986), the heterarchical MNC is a special case of geocentricity, distinguishing itself from the standard geocentric firm in terms of strategy as well as structure. Strategically, competitive advantages are not only derived from the center but also actively searched for in subsidiaries around the world. Structure, instead of being the product of strategy, determines strategy: *"...the hypermodern MNC first defines its structural properties and then looks for strategic options following from these properties."* (Hedlund, 1986, p. 20).

Thus, in contrast to Prahalad, Doz, Bartlett and Ghoshal, Hedlund questions the strategy-structure paradigm, arguing that *”things do not necessarily start in the environment”* (Hedlund and Rolander, 1990, p. 22). Environment, strategy and structure are so closely connected and interdependent that it is often impossible to decide which is the leading factor in a change. Managers cannot wait for the environment to make signals; to be successful, they must act in all three areas.

Outlining an alternative framework, Hedlund and Rolander (1990) suggest that *”...it is possible, and perhaps unavoidable, to think in terms of packages of strategy and structure characteristics. A main point, however, is that the structural items are most important...”* (p. 26). Structure is primary and determines what strategies can be pursued and what parts of the environment to consider.

Strategy should be seen as action patterns over time. There are two kinds of action patterns: programmes of exploitation focusing on effective utilization of existing resources and programmes of experimentation focusing on search for opportunities.

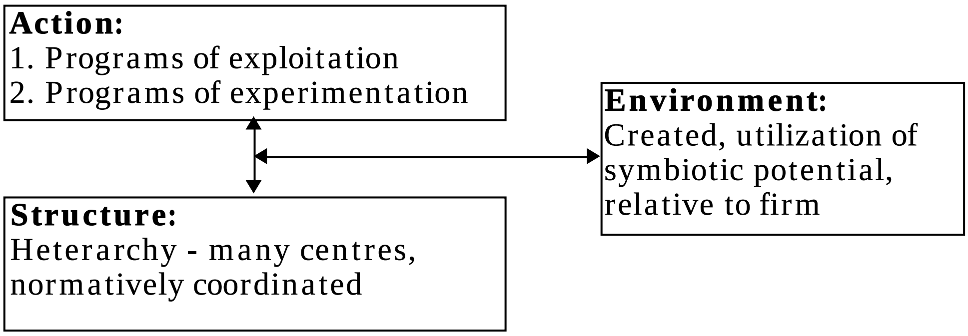


Fig: Elements of an alternative logic (Hedlund and Rolander, 1990, p. 23)

”The environment does not ‘hang around’ to be analyzed. Rather, it is a canvas to be painted...” (Hedlund and Rolander, 1990, p. 30). The environment is defined, selected and created by the firm. This is close to Weick’s (1969) concept of ‘enacted environment’, but the actual creating of domains is stressed even more. The global reach of multinationals creates a large scope of opportunities by combining elements so far not combined, by utilizing the symbiotic potential in the environment (Perlmutter, 1984).

The heterarchical structure is characterized by many centres of different kinds. The headquarter functions are geographically dispersed and strategic roles are assigned to subsidiaries. There is a mix of organizing principles; no dimension, such as product, country or function, is overall superordinate. The structure is flexible over time: emphasis on product integration one year may the next year shift to emphasis on market differentiation.

Apparently, a heterarchy resembles a matrix organization, but there are some important differences. For a heterarchy, the patterns of coordination are more mixed and flexible, the different elements of the organization are linked by internal, flexible processes and conflicts are resolved laterally, not vertically.

The management systems, communication processes and corporate culture are seen as more important parts of the structure than the formal organization. Integration is achieved primarily through normative control rather than by calculative or coercive mechanisms. Corporate goals, strategies and guiding principles of behavior are widely shared in the organization. Access to detailed information is ensured in all parts of the firm; information technology is one of the forces leading companies to heterarchy.

The relationships in the model are not deterministic; a certain structure does not necessarily correspond to a certain strategy. Hedlund and Rolander claim: *"Only a broad correspondence, relating degree and type of heterarchy to degree of experimentation in strategy and type of global advantage sought, can be stated."* (1990, p. 33). The notion of 'fit' between the three elements is not seen as important. The model is best interpreted as a system of learning, where the relationships are dynamic rather than static.

Hedlund and Rolander admit that the heterarchical model has precursors in Mintzberg (1973), Hedberg et al. (1976) and others, but maintain that the totality of their model entails a new conception, particularly suited for large, geographically dispersed organizations. However, the need for heterarchical structure varies; there is room for more rigidly and permanently defined structures, making the degree of heterarchy an interesting variable.

White and Poynter (1990), introducing the *horizontal organization*, similar to the heterarchy, agree that this is not a universal model: *"Whether called a heterarchy, a geocentric or a horizontal organization, this form is not for every business."* (p. 96). This is a high cost organization being worth while only when there is a significant business potential for a mix of advantages.

As the international environment becomes more complex and dynamic, White and Poynter argue, strategies based on singular competitive advantages, such as cost leadership or differentiation, will not ensure survival and success. To do so, strategies must build on a combination or 'mosaic' of advantages.

However, this is not just a problem of strategic choice; to develop and maintain a mosaic of advantages requires a unique organizational solution. As the figure illustrates, the global product structure exploits globally-based advantages at the expense of locally-based advantages, while the area structure exploits locally-

based advantages at the expense of globally-based advantages. Firms intending to simultaneously achieve both global and local advantages must have organizations designed for identifying, balancing and exploiting advantages flowing from many different sources.

According to White and Poynter, all conventional organizational prescriptions suffer from the same root problem: *"The belief that information (and decisions) should flow vertically to some point within the organization, where a person or group charged with the appropriate authority decides. These decisions are based upon the application of a narrow logic incorporating a single historically-based perspective on advantage."* (1990, p. 97).

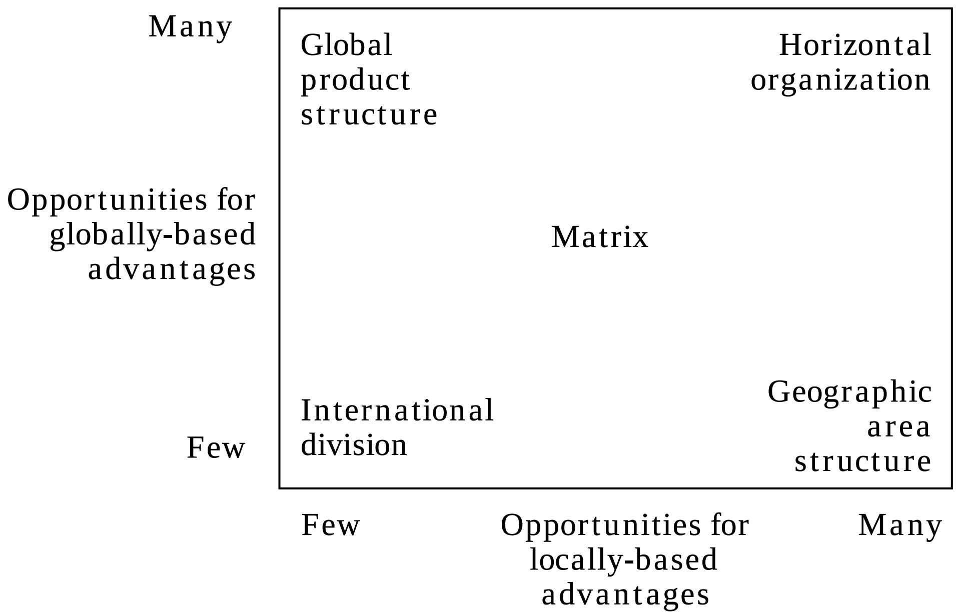


Fig: Relationships between strategic advantages and organization structures (White and Poynter, 1990, p. 97).

But this view is not incorrect; it is contingent upon the opportunities for strategic advantage. In the three companies studied, Dow, IBM and Matsushita, the managers, instead of referring issues upwards, addressed them at their level, contacted peers in other units and entered into collaboration with them. Coordinating the geographically dispersed functional units, these lateral processes were supported by a flexible horizontal network and a common set of shared premises. Thus, horizontal organizations are characterized by three key attributes:

- Lateral decision processes
- Horizontal network
- Shared decision premises

Lateral decision processes may include direct contacts, liason roles, temporary task forces, or more permanent teams. Typical effects of these processes are:

- Directing product flows between units
- Developing and adjusting joint action programmes
- Sharing information and knowledge

Criticism of the process school: lack of process orientation
In the article ”Internationalization as a Strategy Process” Melin (1992), examining the work of the process school, dryly remarks: *”...it is quite unusual for a rather small group of researchers to appoint themselves as constituting a new paradigm.”*

According to Melin, the contribution of Bartlett, Ghoshal, Doz and Prahalad builds on the identification of the management of tensions between the economic and the political imperatives. Since no specific structure can ensure a continuous balance and direct control is not possible, a more subtle strategic control mechanism is created by means of the organizational context.

The work of Bartlett and Ghoshal represents *"a surprisingly strong belief in the environment-strategy-structure paradigm..."* Their basic assumption is that environmental forces shape the strategic profile of a business, while the administrative heritage of the firm shapes its structure and capabilities.

Melin admits that the emirical research by Bartlett and Ghoshal provides an important understanding of three basic forms of MNCs and supplements the old, but still valid, typology of the global enterprise presented by Pearlmutter (1969) but critizes their framework for lacking process dimensions and characteristics of the strategy process.

The 'process school' is, with few exceptions, such as Doz and Prahalad (1987), lacking a process perspective: *"Knowledge about structural forms of international business is unusually well-developed, while the knowledge about the transition of these structures is certainly insufficient."* Melin argues that research on MNCs should be more focused on processes over time and regard structures as temporary manifestations of such processes.

To manage the dilemma of simultaneously achieving local responsiveness, global efficiency and transfer of knowledge, Bartlett and Ghoshal have constructed a solution, the transnational organization model, not empirically derived but a more speculative suggestion brought forth by their studies. A similar, speculative model is the heterarchy (Hedlund, 1986).

Melin claims that such organizations are not easy to manage: *"The threat of internal fragmentation and dissipation is obvious, because of the strong degree of dispersion. Furthermore, the interdependence may counteract the need for flexibility, since the complexity can obstruct the necessary learning capability. However, according to Bartlett and Ghoshal, these problems can be resolved by top management if they succeed in legitimizing diverse perspectives, developing multiple coordination and innovation processes, and building shared vision and individual commitment."*

According to Melin, the ambition to capture the complexity in large, global business firms is desirable but the models suggested by the 'process school' require an extremely skillful and powerful top management being able to control all internal forces in a large worldwide corporation. To unite the dispersed MNCs by means of cultural control, a rather monolithic culture seems to be necessary. However, the underlying assumptions of culture as a variable that can be controlled from the top of the organization are questioned by many students of organizational culture, e.g., Smircich (1983) and Alvesson and Berg (1992).

The emphasis on a managerial focus has also led to a normative bias, which seems to be increasing with an increased degree of speculation in conceptual frameworks without empirical support.

Including the work of Hamel and Prahalad in the process school, Melin considers their concepts for understanding strategic capabilities of MNCs, such as *strategic intent* (Hamel and Prahalad, 1989), *core competencies* (Prahalad and Hamel, 1990) and *resource leverage* (Hamel and Prahalad, 1993), intuitively to be quite reasonable, but when considered more carefully, to be vague and lack descriptive precision.

In a review of ”Managing the Global Firm” (Bartlett, Doz and Hedlund, 1990), Forsgren (1992) criticizes the book for being superficial and full of brave statements regarding the need for lateral information processes, integration and collaboration between subsidiaries, etc. He identifies two main problems in their work:

- Integration is strongly overemphasized compared to differentiation. There is a risk that integration, especially when combined with ‘global’, is taken as the more progressive device, neglecting the limitations and costs of integration.
- It is taken for granted that the headquarter can achieve efficient integration by design of structure and systems, neglecting the political aspects of the problem. ”...the attempt to give a new interpretation of the global firm is combined here with an instrumental and rather conventional perspective on organizations.” (p. 479).

Studying ABB and the problems of integrating a multi-domestic enterprise, Berggren (1996) questions if the transnational organization exists in reality: *”The truly transnational corporation, so eloquently described by researchers in international management, and in which cross-national learning and development flow freely, is still a slippery animal to catch.”* (p. 136)

Berggren criticizes the process school for being preoccupied with concepts such as networks, heterarchies and lateral communication, neglecting classical questions concerning power and control, strategy and structure. Referring to Martinez and Jarillo (1989) and Malnight (1995), he remarks that informal and subtle forms of coordination are added to, not substituted for, formal and structural mechanisms; typically, there is a complex mixture of different control and coordination mechanisms.

Analysing ABB, often depicted as the prototype of the heterarchy, from a Chandlerian perspective, Berggren claims the ”small-company philosophy” and emphasis on maximum decentralization to be strongly related to the need for financial accountability and transparency when growing by acquisitions. Later, when acquisitions became a less important strategy, ABB focused more on integration, standardization and economies of scale. At the same time, the international product dimension was strengthened at the expense of the local and national dimension.

The Network Perspective on International Management

The multinational as an interorganizational network

Building on their concept of the transnational organization (Bartlett and Ghoshal, 1989), Ghoshal and Bartlett (1990) further elaborate the notion of the multinational corporation as an integrated network. Believing that large MNCs can be more appropriately conceptualized as an interorganizational network rather than as a unitary organization, they state:

”In particular, we believe that the concept of a network, both as a metaphor and in terms of the tools and techniques of analysis it provides, reflects the nature and complexity of the multinational organization and can provide a useful lens through which to examine this entity.” (1990, p. 79)

Ghoshal and Bartlett note that this approach is not entirely new within the international management research, even an early works, such as Perlmutter’s (1969) classification of ethnocentric, polycentric and geocentric organizations, is clearly influenced by a network perspective. On the whole, the research focus has shifted from dyadic headquarters-subsidiary relationships and foreign direct investment decisions to the management of networks of established foreign subsidiaries.

However, in contrast to most earlier works, imprinted by technical and economic rationality, the Ghoshal and Bartlett approach emphasizes the social and institutional structure of the multinational environments. Referring to Meyer and Scott (1983) and Zucker (1988), they point to the important role that relational networks in the institutional environment play in influencing the structure and behavior of organizations. Further, quoting DiMaggio and Powell (1983 p. 150) *”organizations compete not just for resources and customers, but for political power and institutional legitimacy, for social as well as economic fitness”.*

Ghoshal and Bartlett (1990) question the often taken for granted power of the MNC headquarters; even though the parent company of a multinational corporation typically exerts considerable hierarchical authority, this kind of power does not necessarily constitute the dominant or the ‘last resort’ mechanism of control. Referring to authors, such as Granovetter (1985), showing the linkage between ownership and hierarchical power in complex organizations to be much weaker than is often assumed, they believe that this link is particularly weak in the case of MNCs, *”not only because some of the subsidiaries happen to be very distant and resource-rich, but more so because they control critical linkages with key actors in their local environments, particularly the host government. ...Subsidiary company links with local customers, suppliers and investors also contribute to the local management’s autonomy.”* (1990, p. 82)

A limitation of traditional organization theory, particularly critical to the analysis of the complex and dispersed multinational corporations, is the view of the environment as an exogenous entity and reified source of undefined uncertainties. In contrast, most interorganizational theories treat the environment as a field of specific interacting organizations and focus on the exchange relations and the transfer of resources between actors, where resources include not only the flows of money and products but also of technology, people and information.

Such exchange relations are maintained through many different mechanisms, such as integrating government agencies, interlocking boards of directors, cross-holding of equity, institutionalized systems of personnel flows, long-term contracts and trust-based relationships, and mediating roles of organizations such as trade associations, banks and consultants.

By the term 'multinational network' Ghoshal and Bartlett refer to all existing relationships and linkages among the different units of the company. Following Aldrich and Whetten (1981), they state that each national unit of the MNC is embedded in an unique context and has its unique organization-set. The organization-sets may themselves be interconnected, and all members of all the organization-sets of the different units collectively constitute what Ghoshal and Bartlett call the 'external network' within which the multinational network is embedded.

The *density* of an organization-set is defined as the extensiveness of exchange ties within the element of the organization-set, measuring the extent to which actors within the set are connected to one another. The density of ties within an organization-set is called *within density*, and the density of ties within the external network – that is, across the different organization-sets – is denoted *across density*.

By the term resource configuration Ghoshal and Bartlett refer to the way in which the resources of a MNC are distributed among its different units; *dispersal* is the extent to which the company's resources are concentrated in one unit versus dispersed among the different units, and*specialization* represents the extent to which the resources located in each unit are differentiated from those in others.

When the density within the organization-sets is low, the influence of the social context is limited and economic rationality becomes dominant in resource configuration decisions. Consequently, the MNC will concentrate research, production, assembly and other similar activities and locate them in national resource niches (Aldrich, 1979) based on the comparative advantage of the coluntry. As a result, the resource configuration will be characterized by relatively low dispersal and high specialization.

When the within density is high, the influence of the social context increases in resource configuration decisions. The MNC will split up its activities and locate more of the different kinds of resources in each market to create the variety necessary to match the structures of the local organization-sets. Consequently, dispersal will be relatively high while specialization will be low.

However, these effects of the within density on the resource configuration are intertwined with the effects of the across density in the external network. Due to improvements in communication and transportation infrastructures around the world, a wide range of industries have experienced increasing across densities in recent years.

Thus, low within density will lead to low dispersal and high specialization, with resources located according to the resource niches in different countries, but, combined with high across density, many of these national resource niches will cease to exist because of freer flows of capital and information. If technologies can be quickly transferred from one country to another, or if excess capital available in one market can be borrowed in another market, there is no longer reason for concentrating specific activities to specific locations. So, high across density will counteract the effects of low within density and suppress resource concentration.

High within density will lead to high dispersal and low specialization, with resources matching the structures of the local environments, but, combined with high across density, there is no longer reason for establishing a range of resources in each market, since exchange linkages can be set up across boarders. So, high across density will counteract the effects of high within density and suppress resource fragmentation.

Referring to the influence by the distribution of power on the flow of resources within an interorganizational network (Benson, 1975), Ghoshal and Bartlett suggest that the relative power of the headquarters and the national units is indicated by within and across densities in the organization-sets of the MNC. High within density can be expected to increase the power of the national units, while low within density can be expected to increase the power of the headquarters.

Across densities principally affect the structural power, i.e., the position within the network. The members of the multinational network can potentially develop different levels of structural power based on their centrality within the larger network across different countries. Ghoshal and Bartlett define the point centrality of each actor as a function of the number of actors within the network with which it has direct exchange relations.

When linkages among the subsidiaries are minimal, i.e, the across density is low, the headquarters has the highest level of point centrality. Generally, as across density increases, linkages become more extensive and the centrality of the headquarters declines. Besides the headquarters, other units within the MNC may develop a high level of point centrality. These units may emerge as *nodes* in the external network due to strategic positions, e.g. in markets with major customers or in countries with advanced state of technologies.

Densities within and across the national organization-sets can be expected to vary across countries; densities across the national organization-sets may be high for the developed countries but low in developing countries. Similarly, densities within the national organization-sets may be high in homogenous countries with a tradition of strong interinstitutional linkages, and low in countries where such linkages are restricted through legislation.

Ghoshal and Bartlett, referring to their prior research on a number of large multinational companies such as Procter & Gamble, Unilever, Ericsson, NEC and Matsushita (Bartlett and Ghoshal, 1989), claim to have shown they are increasingly converging to this network form despite the differences in their businesses and parent company nationalities and propose:

"If within density is a country trait and across density is a world-system trait, the pattern of linkages in the overall structure of the external network is going to be increasingly similar for large MNCs, irrespective of their businesses. In other words, mimetic and normative forces of isomorphism (DiMaggio and Powell, 1983) may be getting stronger as the world jolts along to T. Levitt's 'global village', and the observed trend of convergence to the differentiated network structure may be an outcome of these broader societal changes." (1990, p. 100)

Nordic contributions to international management research

Within international management research, there are principally two domains where Nordic scholars have made major contributions. The first is the field of the internationalization process where Jan Johanson and his colleagues developed what became known as the Uppsala internationalization model (Johanson and Vahlne, 1977). The second is the network field where Håkan Håkansson, Jan Johanson, Mats Forsgren and others have elaborated the network perspective, focusing on business relationships and subsidiary roles (Andersson and Johanson, 1997; Håkansson, 1982).

Compared with American and British international management scholars, Nordic researchers seem to be particularly influenced by authors such as Cyert and March (1963), Weick (1976) and Pfeffer and Salancik (1978). Organizations should be seen, not as unitary hierarchies, but as loosely coupled systems, controlled by coalitions of shifting interest groups. The international firm is sen as a heterogenous entity with subsidiaries playing different roles, representing different interests and controlling different sets of resources (Björkman and Forsgren, 1997).

The centre-periphery metaphor, dominating the international business field, should be replaced by a multi-centre perspective where the subsidiaries, not only the headquarters, exert influence on corporate strategy. Nordic scholars are also working with a somewhat different market concept than normally used in international business research:

"This new market concept, in combination with the loose-coupling image, means not only that the firm's relationships with the market are looked upon as being less 'market-like', but also that the internal relationships are somewhat more 'market-like' than is usually assumed in international business research." (Björkman and Forsgren, 1997)

While internationalization for the most part has been treated as a matter of foreign sales or production, Nordic research has lately been increasingly directed towards other functional areas, such as the internationalization of R&D (Håkanson and Nobel, 1993; Ridderstråle, 1996). Nordic researchers has gradually turned their attention to the difficulties of managing networks of subsidiaries with different resources and environments. To an increasing extent, the international firm is seen as a social community, engaged in creating and transfering knowledge. Important future research issues may involve the underlying factors of the development of organizational capabilities in the different subsidiaries and to what extent it is possible for headquarters to influence these factors (Björkman and Forsgren, 1997).

The Uppsala Internationalization Model

Nordic international business research is presumably best known for investigating the internationalization process of the firm, resulting in the Uppsala internationalization model (Johanson and Vahlne, 1977).

In contrast to much of international business research, from an economics perspective focusing on *why* foreign direct investments are made, the Uppsala model, based on the behavioral theory of the firm (Cyert and March, 1963), ask the question *how* foreign investments are actually carried through, aiming at understanding the underlying forces of the process.

Taking a network perspective and emphasizing the social and cognitive ties in business relationships, the model points out the difficulties in formulating a strategy for market entry and then implementing it; on-going interaction is stressed rather than specific strategic decisions (Johanson and Vahlne, 1992).

The internationalization of a firm is seen as a process in which the firm gradually increases its international involvement. The process is sequential; the firm passes a number of logical steps of international behavior, from initial export to setting up production units abroad. However, this is not seen as a sequence of deliberately planned steps based on rational analysis. Instead, the internationalization process, characterized by successive learning through stages of increasing commitment to foreign markets, will proceed along the logical steps regardless of whether strategic decisions in this direction are made or not (Johanson and Vahlne, 1990).

The successive learning takes place in an interplay between a gradual acquisition, integration and use of knowledge about foreign markets and operations on one hand and a successively increasing commitment of resources to foreign markets on the other. This development of experiential knowledge about foreign markets is necessary to overcome the ‘psychic distance’ to these markets.

The psychic distance between the domestic and foreign market derive from differences in language, culture, education level, business practice and political system between the two countries. Since this perceived distance is expected to disturb the flow of information between the firm and the foreign market, firms will enter new markets with successively greater psychic distance. Thus, firms start their internationalization on markets with the lowest perceived uncertainty – on markets easy to understand, often in neigh-bour countries.

”A critical assumption (of the model) is that the market knowledge, including perceptions of the market opportunities and problems, is acquired primarily through experience from current business activities in the market. Experiential market knowledge generates business opportunities and is consequently a driving force in the internationalization process” (Johanson and Vahlne, 1990, p. 12).

Considerable effort has been made to test the validity of the internationalization process model empirically. The model is based on research on Swedish firms, but has gained strong support in several other studies, showing that its validity is not limited to small countries which are highly dependent on export (Melin, 1992).

However, the support for the Uppsala model is not undisputed; the model has a number of shortcomings which have been acknowledged by Johansson and Vahne (1990). It is overly deterministic, it applies merely to early stages of internationalization and its explanatory value of psychic distance tends to decrease over time. The model is critized for being less valid for very large multinational corporations, firms with large international experience, high-technological companies, service industries and international operations not motivated by market seeking. Finally, it does not pay very much attention to acquisition as a way of internationalization.

In addition to the Uppsala model, Scandinavian researchers have developed frameworks based on the network perspective for analyzing the internationalization process. Johanson and Vahlne (1992) have shown how the internationalization process has been influenced by gradually developed relationships in certain markets.

According to Johanson and Mattsson (1988), the internationalization of a firm can be achieved through (1) the establishment of relationships in country networks that are new to the firm, (2) the development of relationships in those networks, and (3) connecting existing networks in different countries.

The network model of the organization-environment interface

The Scandinavian network model has its origin in a research programme beginning in the middle of the 1970's at the University of Uppsala (see e.g., Håkansson, 1982; Hägg and Johanson, 1982). It was observed that business organizations often had continuous exchange relationships with a limited number of entities in their environment, where each entity exerted considerable influence on the organization. For the most part, these were industrial firms working with a fairly small number of suppliers, customers and competitors, but further studies indicated that this type of network seemed to be frequent among business organizations in general (Håkansson, 1989a).

Continuous interaction and exchange develop relationships between parties linking their resources and activities and creating a web of personal relations. A complex set of interdependencies gradually evolves, in which activities of one party are connected with the activities of another, giving rise to mutual adaptions and new routines. Each party can gain access to the other's resources, and may, to some extent, mobilize and use these resources. Since distinctive capabilities unique to each party are generated and have meaning only in relation to other parties, the identity of an organization is created in interaction with major counterparts (Håkansson, 1989b).

This web of relationships an organization is embedded in, can be called a network. The effectiveness of an organization operating in a network is dependent not only on how well the direct interaction with other parties is managed but also on how these parties manage their interactions with third parties.

Since the identity is closely related to the interaction with other entities in the network, environment is not an adequate concept; the notion of an enacted 'context' seems to be more useful when referring to the set of related entities. Håkansson thus summarizes the following propositions of the network model:

1. Firms often act in a context in which their actions are conditioned by other actors, each being unique and pursuing its own goals.
2. In the continuous interaction and exchange with other actors, firms are able to access and exploit the resources of other actors and coordinate their activities.
3. Since the distinctive capabilities of a firm are developed in interaction, the identity of the firm is created in the relationships with other parties.
4. The performance of a firm is conditioned by the network as a context, including also third parties.

Managing multi-center firms and international business enterprises

Assuming that a firm-specific advantage over local companies is necessary for foreign investment, mainstream foreign direct investment theory cannot satisfactorily explain further internationalization of already highly internationalized firms. To an internationally experienced firm, the incentive to invest abroad frequently is its existing foreign assets rather than home-based resources. The theory disregards the firm's history, prior experience and existing relationships with other firms – factors of crucial importance in the internationalization process (Forsgren, 1990).

Forsgren (1990) suggests that the traditional theory should be replaced by an interorganizational approach to foreign investment; then internationalization can be seen as a way of managing strategic interdependencies in industrial networks. New investors have to create a position in foreign industrial networks and investments must therefore be based on home-based strengths. The experienced investor, however, can use his existing position in the network as a base for further investment abroad.

Despite a steadily growing number of acquisitions of foreign production units since 1970, foreign direct investment theory has paid little attention to acquisition as a way of internationalization. In a study of Swedish industry, Forsgren (1989) also found foreign acquisitions to be much more frequent among highly internationalized firms. From an interorganizational point of view, the management of relationships is an important strategic issue, and one obvious strategy is to acquire other firms in the same network.

After the first stage, in which the internationalization is based on a gradual exploitation of firm-specific advantages, controlled by the headquarters, further internationalization often leads to a new situation, where the foreign markets become increasingly important and the subsidiaries more powerful and independent. The parent company's influence decreases due to the increasing knowledge about production and markets in the subsidiaries.

Some subsidiaries may enter markets outside their own and come to play a strategic role in a certain product area. If this occurs in various product areas in the same firm, a multi-centre structure with several centres in different geographic areas may develop, each centre exploiting the specific advantage of ”its” country. In such a multi-centre firm, new products and processes can appear in many places and be exploited on an international basis.

In a study of 22 of the most internationalized Swedish firms, Forsgren (1990) has investigated the occurrence of multi-centre structures. Five indicators, measuring different types of centres of gravity abroad, were used to identify foreign-based centres. Four indicators were related to production, marketing, purchasing and R&D while the fifth indicator was related to the formal organization and labeled management centre.

In total, the 22 firms had 294 overseas centres, of which 205 were production centres, 40 marketing centres, 31 management centres and 18 research centres (no purchasing centres). Most of the firms had several overseas centres, being most significant in firms with more than half of their employees abroad. There was a close correlation between the degree of internationalization and the prevalence of a multi-centre structure; management and research centres existed only when the degree of internationalization was high.

One important conclusion from the study is that the former periphery in many Swedish firms has developed its own centres with power to influence further development of the company as a whole. Consequently, the international firm can be seen as a loosely coupled political system, each part also being engaged in industrial networks of interdependent companies.

"An industrial network consists of units which are functionally linked via transactions of physical resources and/or knowledge, or appear in the same purchasing or sales market. Each unit often has its specific function in this system and frequently obtains components from other units therein." (Forsgren, 1990, p 264)

Such networks are not designed by the headquarters but emerge in an interplay between semi-autonomous, interdependent actors, developing their own business relationships in the network. A subsidiary belongs to two different systems, an industrial network and the owner system, and is subject to tensions between the two roles, but the longer a subsidiary has been operating in a country, the more its behavior will be influenced by the network.

This transition from centre-periphery systems to multi-centre systems has forced top management to change their way of governing and find new ways of getting legitimacy, such as symbolic behavior. by which top management can confer meaning on a firm's behavior decided elsewhere. The role of subsidiary management has also changed, from an implementer of headquarters strategies to a stakeholder in corporate strategy-making.

Based on a network framework, Andersson and Johanson (1997) offer a new definition of international firm and international business, stressing exchange relationships in business life. Since business is principally a matter of connecting different actors through exchange relationships, a business enterprise becomes international by connecting actors in different countries.

Even though most studies of the multinational firm today recognize the importance of other functions, the way the firm's production is organized around the world still seems to be the main competitive factor. Underlining the importance of the global structure of activities such as R&D, marketing and purchasing, Andersson and Johanson place these activities in focus when discussing competitiveness of the multinational firm.

By frequent exchange in a business relationship, two partners can gradually learn about each other's needs and capabilities and find opportunities to reduce the cost of exchange and increase their joint productivity. Managers in different functions develop and maintain extensive contacts, learning about each other's ways of dealing with different problems.

In business relationships, knowledge exchange not only takes place and is intertwined with product exchange, but also new and unique knowledge is created. Such relationships serve as platforms for future business transactions creating knowledge and competence that may contribute significantly to the competitive advantage but also constitute constraints on the firm's business.
Business relationships, based on trust and mutual knowledge and involving intentions, expectations and interpretations, cannot be understood by those outside the relationship. Only the insider can judge whether the effort spent on a business relationship is worth while.

The partners in a business relationship are directly tied to each other and indirectly tied to a wider network of business relationships. Consequently, the intentions and expectations of one business relationship are interrelated with those in other relationships, as is the interpretations of any one relationship. Since the business partners are interdependent, they can exercise some, although limited, control over each other (Andersson and Johanson, 1997).

Assuming that competitiveness is based on the exchange structure of the firm, they suggests a firm concept placing attention on exchange, *the business enterprise*, and defined it as *"...a pattern of activities that link a set of actors and resources with the purpose of exploiting exchange opportunities in a market."* (Snehota, 1990 p. 42)

Contrary to the firm in economic theory, defined without reference to other firms, business enterprise is defined on the basis of its exchange relations with others. In a business enterprise, the critical source of competitive advantage is its business relationships; the competitive position is a result of its ability to connect business relationships. Thus, the specific competitive ability of a business enterprise is based on the combined knowledge from a unique, connected set of business relationships. In this way new knowledge is created through market exchange within a set of interrelated business relationships.

In contrast to the traditional view of market exchange as merely a function of finding an outlet for the products and of getting access to resources, Andersson and Johanson suggest that *"the relationships with customers and suppliers are lasting, structural constraints that can serve as starting point when trying to understand the distinctive competitive ability of business enterprise better than production..."* They also claim business relationships to be more important than organization of production with regard to knowledge development and, thus, long term competitiveness.

Taking a step further, Andersson and Johanson (1997) define *international business enterprise* as a business enterprise connecting business relationships in several countries. This means that market exchange in a foreign markets is a necessary, but not sufficient, condition for international business enterprise. Consequently, the internationalization of business enterprise is a question of the degree to which the business enterprise is connecting business relationships in different countries.

The international business enterprise may, but does not necessarily, have business enterprises in several countries – it may well consist of one single business enterprise engaged in international business relationships. In contrast to the international business enterprise, *the multinational business enterprise* has business enterprises in several countries without having any connecting relationships. Thus, SKF is a highly internationalized business enterprise, not becuse it has large production units in a number of countries, but because those units are closely connected to each other.

Unless they participate directly, headquarters can neither understand what is going on in business relationships nor judge wether investments in business relationships are justified. Since the profits of subsidiaries in international business enterprises derive from business relationships, measuring profitability by current profitability criteria is meaningless. Consequently, the possibility of controlling subsidiaries in international business enterprises is quite limited.

Referring to Pfeffer and Salancik (1978), Andersson and Johanson (1997) further propose that power in international business enterprises derives from control over important business relationships. This means that subsidiaries can use such power to gain control over over critical connections and, in this way, develop their exchange and thereby the future development of the international business enterprise.

MNC subsidiary management

Although large multinational corporations have attracted the attention of researchers for many decades, the subsidiary-focused research did not become an important strand of MNC research until in the early 1980s. Birkinshaw and Hood (1998) distinguish three broad schools of thought within the field of MNC subsidiary management research:

- Headquarters-subsidiary relationships
- Subsidiary roles
- Subsidiary development

Most of the early research on MNC subsidiaries focused on different aspects of headquarters-subsidiary relationships, such as centralization, formalization and control, e.g., Otterbeck (1981). Birkinshaw and Hood underline that this focus on dyadic relationships was entirely consistent with the view of those times of MNCs as hierarchical, centralized corporations in which the foreign subsidiaries served as pure sales outlets or assembly plants. Much of this research saw subsidiaries as instruments of the parent company, assuming that headquarters could manage all subsidiaries in almost the same way.

In the middle of the 1980's, beginning with White and Poynter's (1984) study of Canadian subsidiaries, the research focus shifted to from dyadic relationships to subsidiary roles. For the first time, the subsidiary, rather than its relationship with headquarters, was the focal unit of analysis, and in several studies, such as Ghoshal and Bartlett (1990) and Hedlund (1986), subsidiaries were seen as nodes in networks.

In most cases the subsidiary's role were seen as assigned by headquarters; in other cases the subsidiary was recognized as a more autonomous unit defining its own strategy. Besides headquarters, industry sector, local business environment, relationships with sister subsidiaries and entrepreneurial drive of subsidiary management have been pointed out as determinants of the subsidiary role (Birkinshaw and Hood, 1998).

In a number of studies, typologies with typically three or four different subsidiary roles were developed. In White and Poynter's Canadian study, for example, five roles were identified: miniature replica, product specialist, rationalized manufacturer, strategic independent and marketing satellite. As previously described, Bartlett and Ghoshal (1989) distinguished between strategic leader, contributor, implementer and the black hole. Birkinshaw and Morrison (1995) have proposed a simple typology mapping most of the typologies of the prior research:

- *The local implementer* has limited geographic scope, usually a single country, and a severely constrained product range. This role corresponds roughly to the miniature replica of White and Poynter and to the implementer of Bartlett and Ghoshal.
- *The specialized contributor* has considerable expertise in certain functions but is tightly coordinated with other subsidiaries. This role approximates the contributor of Bartlett and Ghoshal and the product specialist and rationalized manufacturer of White and Poynter.
- *The world mandate* has worldwide or regional responsibility for a product or entire business. The product scope is typically unconstrained. This role matches the strategic leader of Bartlett and Ghoshal and the strategic independent of White and Poynter.

The third school, subsidiary development, seeks an answer to the question: How and why do the activities of subsidiaries change over time? It is based on the network perspective but also has elements of the resource-based view; over time the subsidiary accumulates valuable capabilities through its network relationships, which leads to an increased status and thus to an extension of the scope of its activities (Birkinshaw and Hood, 1997).

Although several studies of subsidiary roles, such as Jarillo and Martinez (1990) and Gupta and Govindarajan (1994) shed some light on the development process, it is only in recent years research focusing on subsidiary development has emerged.

Using a sample of foreign-owned manufacturing subsidiaries in UK, Taggart (1998) explores the question of strategy evolution in multinational subsidiaries. Extending Porter's (1986) coordination-configuration framework (previously described), he distinguishes four different subsidiary strategies:

- The *strategic auxiliary*, corresponding to Porter's purest global strategy, is a highly focused subsidiary with fairly limited autonomy.
- The *confederate subsidiary*, corresponding to Porter's high foreign investment strategy, has also limited autonomy but act in a participative and responsive way.
- The *autarchic subsidiary*, corresponding to Porter's country-centred strategy, has a higher level of autonomy and performs more value-chain activities locally.
- The *detached subsidiary*, corresponding to Porter's export-based strategy, should not exist at all except as a transitional form.

Taggart concludes that there is an overall trend towards increased coordination of the subsidiaries. While the detached subsidiary is seen as a temporary phase that all subsidiary managers would like to leave as soon as possible, the strategic auxiliary is the preferred end point for most subsidiary managers.
Forsgren and Pedersen (1998) investigate the extent to which subsidiaries of foreign-owned firms in Denmark function as centres of excellence and which factors contribute to subsidiaries becoming centres of excellence. Reviewing the literature, they distinguish two different traditions within the research on subsidiary roles: the product mandate approach and the network-based models.

The product mandate approach is focused on the extent to which the subsidiary can operate as a fully equipped firm with its own export and development activities. The word 'mandate' suggests that the subsidiary is assigned something by the headquarters, typically a mandate to sell products worldwide. Autonomy is emphasized rather than interdependence; to qualify as a product mandate, the subsidiary should not only control the production and marketing of products but also have a substantial influence of the development of these products.

The authors find the concept of product mandate strikingly similar to usual definitions of product division but criticize the research for not offering a precise definition of product mandate.

Within the tradition of network-based models, two bodies of literature can be discerned. In the first one the network MNC is seen as a new ideal type of organization, evoked by conditions requiring MNCs to change from bureaucratic to more flexible, organic structures composed of personal networks rather than formal relationships.

Forsgren and Pedersen consider the meaning of networks in these models not being quite clear but note that the models lay stress on the information flows in the network. Integration rather than differentiation seems to be the keyword, and, in contrast to the product mandate view, interdependence rather than autonomy seems to be the focus. Subsidiaries contribute to the overall objectives by being a part of the corporate strategy in a learning organization; consequently, networks of information and knowledge flows *within* the MNC become crucial.

The other body of literature describes the network MNC in terms of business relationships, based on theories about industrial networks, particularly the view of markets as a set of exchange relationships between actors controlling business activities (see previous section).

In contrast to the information network view, emphasizing the control and integration of the subsidiary to fulfil a specific corporate role, the business network view calls attention to the development of the subsidiary as a result of the interaction with other business actors, including external actors. The network is not considered a superior organizational mode to replace bureaucratic structures; the business network has always coexisted with bureaucracy, and it is an empirical question which is most essential in a specific case. The network important to the subsidiary comprises not only business relationships with external actors but also with the whole network including other corporate units.

According to the product mandate literature, three variables are particularly important in classifying subsidiary roles: own production, export and control of development resources. Thus, production subsidiaries can divided into four groups, as shown in the matrix below.

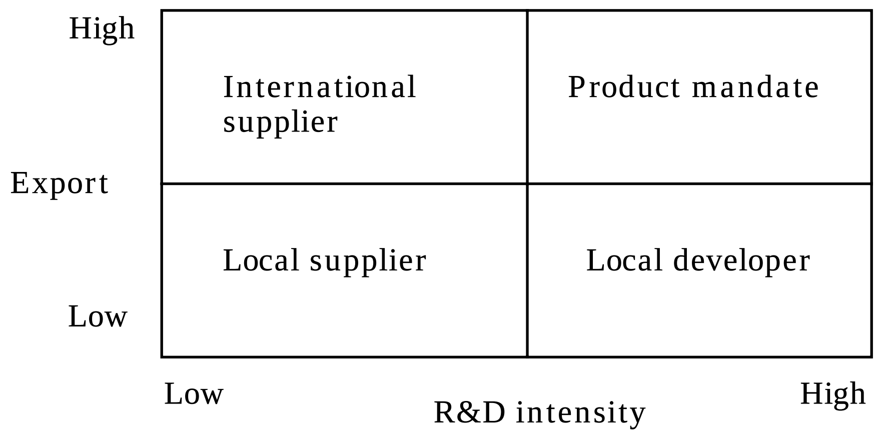


Fig: Classification of production subsidiaries (Forsgren and Pedersen, 1998).

The local supplier produces for the local market, while the international supplier is allowed to sell outside the local market, but in both cases the products are developed elsewhere in the MNC. Both the product mandate and the local developer have their own R&D resources, but only the product mandate may sell outside the local market.

From a network point of view, another factor becomes important in deciding whether a subsidiary can be classified as a centre of excellence or not: the degree of corporate and external embeddedness of the subsidiary in terms of R&D. The degree of embeddedness reflects the intensity of knowledge exchange between the subsidiary and other corporate units and external business actors. If a subsidiary has a high degree of both corporate and external embeddedness, it is well integrated in both the internal and external network, which gives the subsidiary a prominent position within the MNC.

Forsgren and Pedersen conclude that interdependence rather than autonomy is the crucial variable when assessing whether a subsidiary is a centre of excellence. Product mandate is a necessary but not sufficient condition; to be regarded as a a centre of excellence, a subsidiary also must have a certain degree of corporate embeddedness. Finally, a subsidiary with a high degree of both corporate and external embeddedness can be of specific strategic importance to the MNC.

In a study of foreign-owned firms in Sweden, Birkinshaw (1998) examines subsidiary development from a host country perspective. In contrast to most approaches where the subsidiary either adapt to (Ghoshal and Nohria, 1989) or tap into or draw from the host country environment (Porter, 1990), the subsidiary is seen as a *contributor* to the host country environment.

The research focuses on the impact of the process of subsidiary development on the host country. A reason for the selection of Sweden is the interesting situation of a recent political acceptance of foreign direct investment and a rapidly increasing level of foreign ownership in the industrial sector. The subsidiaries studied extend from very large, acquired firms such as ABB and Saab with a major impact on the Swedish economy to small sales subsidiaries with very limited job creation or investment.

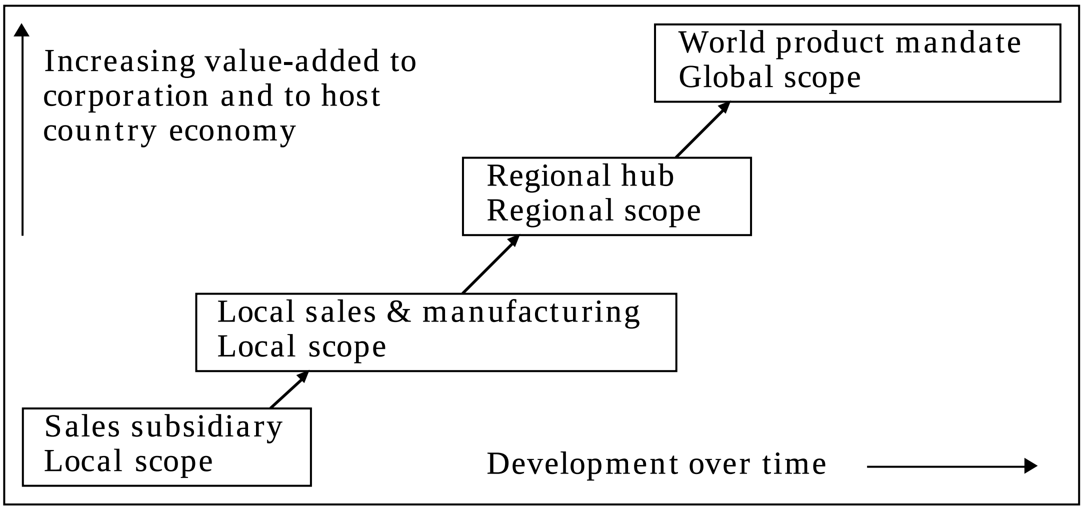


Fig: Stages in subsidiary development (Birkinshaw, 1998).

The figure illustrates different stages of subsidiary development with respect to level of value-added, defined as the extent of the value chain undertaken and the geographic scope.

The sales subsidiary, simply selling the parent company's products or services in the local market, represents the first stage and lowest level of value-added. In the second stage, the local sales and manufacturing subsidiary also undertakes production for the local market. The regional hub subsidiary in the third stage has a certain amount of international responsibility, typically export to neighbour countries or marketing in a region, such as Scandinavia. Finally, the world product mandate subsidiary provides the highest level of value-added, typically having R&D, manufacturing and management activities for an entire business or division.

The level of subsidiary value-added is also dependent on the relationship with the host country economy. The sales subsidiary provides limited local employment and investment, while the world product mandate subsidiary provides high levels of employment and investment, i.e., low-value added subsidiaries are 'exploiters' of the local environment, whereas high-value added subsidiaries are 'contributors' to the local environment.

The subsidiary development process is by no means given and definite; many subsidiaries will remain in a certain stage, and some may move backwards. The process develops in a complex interplay between the actions of subsidiary managers, the actions of parent company managers and the characteristics of the local marketplace. While parent-driven development is a top-down process, where decisions about investments and new responsibilities are made by the headoffice, subsidiary-driven development is a bottom-up, entrepreneurial process, where the initiatives to exploit new business opportunities are taken by subsidiary managers.

In his study of foreign-owned subsidiaries in Sweden, Birkinshaw found that centres of excellence could be gained at every stage of the value chain, from R&D to sales and services. Centres of excellence, defined as an area of expertise for which the subsidiary is recognized by the corporation and which other units draw on, do not represent major investments by the parent company but show that the subsidiary is successful in at least one area, being good for the parent company as well as the Swedish economy. Birkinshaw suggests that the Swedish centre of excellence model may be a part of an emerging trend and states:

"If, as some claim, we are moving to a world where knowledge management is imperative to success, then centres of excellence will become a much more common phenomenon because they represent the wellsprings of knowledge on which others draw." (1998, p. 291)

Birkinshaw concludes that the subsidiary development process varies significantly from country to country; in Sweden it is less established than in other countries, such as Canada and UK. The strong manufacturing development in Ireland and Scotland is not evident in Sweden; nor is the emergence of world product mandates, frequently seen in Canada and USA. One reason for this is the small, peripheral and relatively high-cost market, only recently being a part of the European Union. Consequently, most foreign MNCs see Sweden as a market for their products but not as a suitable site for manufacturing or development. Another reason is the for a long time neutral or even averse attitude towards foreign direct investment.

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