



# Department of Business Studies

Working Paper Series

ISSN:1650-0636

Working Paper Series 2003:10

## **A new organisational form in multinational enterprises: From M-form to W-form**

**HÅKAN PIHL**

### **ABSTRACT**

Researchers in the adjacent fields of international business, organisation theory and strategic management recognise new organisational elements and a new organisational form in large multinational enterprises. In this paper a synthesised view of this new organisational form is presented, based on an extensive literature review. Further, the new organisation of multinational enterprises is compared to the M-form (multidivisional form) and analysed from the perspective of new institutional economics. A new "W-form" (Web-form) is hereby identified and analysed. Finally, weak points and contradictory elements in the analysis of a new form are critically discussed.

Department of Business Studies  
Kristianstad University College  
SE-291 88 KRISTIANSTAD  
SWEDEN

Phone: +46 44-20 31 06  
Fax: +46 46 44 20 31 03  
[www.hkr.se/web-eko/sve/forsk/index.htm](http://www.hkr.se/web-eko/sve/forsk/index.htm)  
e-mail: [e@hkr.se](mailto:e@hkr.se)

During the last decades organisational changes in large MNEs have received much interest from researchers and many suggest that a new organisational form is emerging. International strategies and organisational designs seems to be in a period of high transition and the new dominant designs have not yet become fully established (Egelhoff 1998). It is therefore difficult to describe with any certainty what we are changing to and there is no clear picture of what this new form looks like. The variety of contributions can be illustrated by the different names that are used to describe the new form of MNEs, for example: "Geocentric" (Perlmutter 1969), "Dynamic network" (Miles & Snow 1984), "Heterarchy" (Hedlund 1986), "Transnational" (Bartlett 1986), "Integrated network" (Bartlett 1986, Bartlett & Ghoshal 1992), "Horizontal" (White & Poynter 1990), "Multi-center" (Forsgren 1990), "Integrated players" (Gupta & Govindarajan 1991), "Wired" (Hagström, 1991), "Holographic" (Ridderstråhle 1992), "Transcontinental" (Humes 1993), "Multidimensional" (Jansson 1994), "N-form" (Hedlund 1994), "Integrated global" (Malnight 1995), "Networkbased" (Malnight 1996), "Metanational" (Doz, Asakawa, Santos, Williamson, 1996), "Differentiated network" (Nohria & Ghoshal, 1997) and "Individualized enterprise" (Ghoshal & Bartlett, 1997).

Behind these contributions lies the assumption that new competitive advantages are within reach for MNEs. Attention has been given to the possibilities to reap new advantages from global specialisation, global scale advantages and local market adaptation. Other benefits are linked to the possibility to improve the use of knowledge, to develop dispersed specific organisational skills, to learn within the network of units and to create innovations in joint development projects. Finally, possibilities for a more entrepreneurial spirit throughout large MNEs have been observed, with the following possibility of increased productivity and efficiency.

In what way do these ambitions affect the organisation of large MNEs? Several authors note that the co-ordination is more complex with a flexible use of different mechanisms (Bartlett & Ghoshal 1992, Hedlund 1994, Nohria & Ghoshal 1997). But when it comes to the more precise description of how co-ordination become more complex and flexible, different researchers give different answers. There is therefore a need for synthesising different contributions to obtain a more comprehensive picture of the organisational change in MNEs. *The first purpose of this paper is to contribute to a more comprehensive description of the new organisational form of MNEs, based on an extensive literature review.*

The fact that different contributions emphasise different aspects and use different terminology and theories to explain the organisational development does not make the overall

picture clearer. A predominating approach is to analyse the organisation of MNEs with emphasis on induction. Here, many different aspects are described and various theories are used to explain these aspects. Another less prevalent approach is more deductive and uses a consistent theoretical basis to analyse few aspects of the new organisation. A problem with the former approach is the lack of coherent explanation based on a consistent theory. A problem with the latter approach is the limited scope of aspects that are analysed. There is therefore a need for theoretical development in the gap between these two approaches. Can the large variety of organisational features that are observed be described and explained by the use of consistent theory? Which theoretical foundation can be used for such an integrative purpose?

New institutional economics has been used to explain the mode of entry (foreign direct investments) used by MNEs (e.g. Caves 1971, Hirsch 1976, Magee 1977, Casson 1979, Dunning 1981). New institutional economics also provides an analysis of the organisational form that has been prevailing among MNEs. The organisation of large diversified enterprises is here analysed as a multi-divisional form (M-form), as described by Williamson (1975, 1985). Calvet (1980), Caves (1982, 1996) and Hennart (1982) exemplify other important contributions that use new institutional economics to analyse the organisation of MNEs. New institutional economics might prove fruitful as a theoretical basis for the analysis of the new organisation of MNEs, which is discussed by Hedlund & Ridderstråle (1997). But new institutional economics has also been criticised and one objection is that it needs a more nuanced analysis of the complex co-ordination of today's multinational enterprises (Doz & Prahalad 1991). *The second purpose of this paper is to present a theoretical analysis of the new organisation of MNEs, based on perspective from new institutional economics and the analysis of the M-form.*

Finally, contributions that describe new organisational features in MNEs can be criticised for being too optimistic about the many new possible organisational changes that are at hand in MNEs. Problems and contradictions have been understated. Bartlett and Ghoshal give one illustration of this in their 1993-article: "Beyond the M-form: Toward a Managerial Theory of the Firm". Here the new form of MNEs is contrasted to the M-form. The new form is explained from a new "managerial" perspective, which is very optimistic about the capabilities of managers at different levels. New ambitions in the organisation of MNEs are handled by managers that take the right initiatives and collaborate with each others. Possible conflicts and contradictions in goals and ambitions are not analysed. *The third and final*

*purpose of this paper is to discuss possible problems, conflicts and contradictions in the description of new organisational form in MNEs.*

## **NEW ORGANISATIONAL FEATURES – A LITERATURE REVIEW**

Different researchers emphasise different aspects. Below the result from a literature review is presented by the use of five categories that have proven useful for presenting a summarised picture. These are: "overall structure", "management roles", "internal markets", "formal systems" and "shared views and values".

### **Overall structure**

Rather than to diversify, MNEs should concentrate their activities to areas where they have core competencies. The dispersed units of a MNE hereby have combinational possibilities. The new form is hereby characterised by a global distribution of specialised roles to units that are "centres of excellence" (Prahalad & Hamel 1990, Forsgren 1990, Bartlett & Ghoshal 1992, Humes 1993, Hedlund 1994, Ridderstråhle 1996). Hereby, the role of subsidiaries is getting more important (Martinez & Jarillo 1989, Gupta & Govindarajan 1991, Andersson & Forsgren 1994). The search for local market adaptation, as well as global specialisation and global scale advantages, can be obtained by the allocation of market responsibilities to front-line units (Ghoshal & Bartlett 1997).

Another trend is to increase decentralisation and to give responsibilities for results to dispersed units throughout the organisation. This enables the organisation to reduce hierarchical layers and creates a "flat" organisational structure (Bartlett & Ghoshal 1993, Fulk & DeSanctis 1995, Buckley & Casson 1998).

The dynamic property of MNEs is another recurrent topic. Knowledge creation and change processes are emphasised and the capacity to develop new markets and products are seen as crucial in competition. Therefore collaborations between different functions and between units increase and are organised as projects running parallel to the more permanent line-structure (Martinez & Jarillo 1989, Bartlett & Ghoshal 1992, Hedlund 1994, Nonaka 1994, Ridderstråhle 1996). Within operational units grouping are made by process rather than function and process-based units are co-ordinated by goals rather than instructions (Fulk & DeSanctis 1995, Ostroff 1999). The result is an overall hierarchical structure that is modified to allow several organisational dimensions (Jansson 1994) and "weak" dimensions are strengthened (Malnight 1995,1996, Berggren 1996). To balance different dimension, for example global and local ambitions, an overall matrix-structure can be imposed with global

responsibilities for production/development and local responsibilities for markets (Martinez & Jarillo 1989, Bartlett & Ghoshal 1993). To balance the dimensions of short-term effectiveness and long term development the line-organisation can be complemented with projects crossing the line-structure. Beyond formal structure, balancing various dimensions in a flexible way requires intense, often informal and horizontal, communication throughout the organisation (Perlmutter 1969, Edström & Galbraith 1977, Martinez & Jarillo 1989, White & Poynter 1990, Hedlund 1994).

### **Management roles**

The new organisation in MNEs also challenges management roles, implying that, rather than traditional top-down decision-making, decisions should be made through communication and collaboration between managers at different levels with different roles (Perlmutter 1969, Bartlett & Ghoshal 1992, Baba & Imai 1993.)

Top managers are the creators of the overall organisational infrastructure and are supposed to create and communicate overall visions and values and to define norms and standards. Top managers also play a role as catalysers of initiatives from lower level (Bartlett & Ghoshal 1992, Riddersträhle 1996, Prahalad & Hamel 1990, Stacey 1992, Hedlund 1994, Mintzberg 1994, Nonaka 1994). This implies a decentralised organisation, but top-managers should involve selectively in problems that need centralised decision-making (Miles & Snow 1984, Bartlett & Ghoshal 1993).

Middle managers, with global responsibility for a certain function, product or market, play a critical role linking overall visions to front-line initiatives (Mintzberg 1994, Nonaka 1994). Middle managers are also supposed to encourage front-line initiatives and horizontal relations and support transfers of knowledge between different parts of the organisation (Bartlett & Ghoshal 1992, 1993, Hedlund 1994)

Front line managers are to an increased extent given short-term profit responsibilities for operations, as well as responsibilities for long-term strategic development projects. Front line managers are expected to be entrepreneurs, who initiate changes and take responsibility for processes (Gupta & Govindrarajan 1991, Bartlett & Ghoshal 1992, Buckley & Casson 1998,). One idea is that front-line managers, as they meet local customers, shall offer the total product assortment of the whole MNE (Ghoshal & Bartlett 1997)

## **Internal markets**

With decentralised, front-line responsibilities for results and an acceptance for internal initiatives, many "small businesses" are created within the MNE. Internal transactions of goods and services are increasingly managed as internal market relations with voluntary agreements and market-prices (Miles & Snow 1984, Peters 1992, Ridderstråhle 1996, Bartlett & Ghoshal 1993, Forrester 1993, Buckley & Casson 1998, Fulk & DeSanctis 1995).

Further, units are compared with each other, and compete to achieve outstanding results in various areas (internal benchmarking). There are also internal markets for projects and competition for specialised roles in the MNE. This is for example supported by internal competition for development funds and an explicit process of approval (Bartlett & Ghoshal 1992, 1993, Prahalad & Hamel 1990, Ridderstråhle 1996, Buckley & Casson 1998, Birkinshaw 1996). Subsidiaries are hereby given roles as "global innovators" and "integrated players" (Gupta & Govindrarajan 1991). Also supportive functions, i. e. R&D, are increasingly subordinated internal market relations (Whittington 1991). Internal markets create strong incentives for productivity and efficiency, and increase entrepreneurial initiative. One problem is that internal competition can work against inter-unit communication and co-operation (Marchan 1996). Shared views and values that support communication and co-operation may counterbalance the problems created by internal competition. Another possibility is that top / middle managers intervene when problems occur (Miles & Snow 1984, Forrester 1993, Buckley & Casson 1998).

## **Formal systems**

The development of information technology and new formal systems support the organisational features discussed above. On an overall corporate level, the use of universal formalised systems is emphasised. By the use of universal systems for example internal communication and distribution of goods and resources is facilitated (Martinez & Jarillo 1989, Hagström 1991, Bartlett & Ghoshal 1992, Fulk & DeSanctis 1995, Ridderstråhle 1996, Buckley & Casson 1998, Ostroff 1999). Furthermore streamlined, fast and detailed reporting systems, from front to middle and top levels, makes decentralised and dispersed responsibility for results possible (Martinez & Jarillo 1989, Miles & Snow 1984, Bartlett & Ghoshal 1993).

Formalised systems are also developed to support the management of new dimensions of the business. Reporting systems complement the control of short-term financial results with other objectives, for example long-term development, quality-issues and specific local and

global objectives (Perlmutter 1969, Hagström 1991, Fulk & DeSanctis 1995). Entire new systems are developed for issues like business intelligence, development of competence, transfers of personnel, internal benchmarking, distribution of best practises etc (Edström & Galbraith 1977, Fulk & DeSanctis 1995, Ostroff 1999). Though formalised systems are seen as important, due to the need for flexibility many authors express a critical stand against detailed regulations (Bartlett & Ghoshal 1992, Mintzberg 1994, Fulk & DeSanctis 1995).

### **Shared views and values**

Contributions that describe the new form emphasize the importance of shared views and values among members in the MNE. Shared views and values guide and restrict behavior of decentralised individuals and reduce the need for control by managers or formal rules (Bartlett & Ghoshal 1992, Hedlund 1994, Mintzberg 1994). Shared views and values can improve motivation and appease communication in horizontal and vertical directions. Collaboration in different organisational settings is also facilitated if members share key views and values. Hence, shared view and values can improve the communication network of the organisation and constitute a basis for flexible collaborations crossing the borders of organisational units (Martinez & Jarillo 1989, White & Poynter 1990, Buckley & Casson 1998).

The development of shared views and values can be promoted by communication of managers and other ways of distributing information (i.e. policy-documents, internal newsletters), by recruitment decisions, by training and by transfers of personnel (Perlmutter 1969, Bartlett & Ghoshal 1992, 1993, Forrester 1993).

The summarised picture of new organisational features in large MNEs is presented below.

**Table 1. New organisational features in MNEs**

<i>Overall structure</i>
Units within core business with globally specialized roles. Decentralization with responsibilities for operational results and long term development. Fewer hierarchical levels – flat organisation. Front-line units represents the whole MNE and adopt to local markets. Emphasis on dynamic performance, increased division by projects and processes. Overlapping responsibilities and elements of formal matrix (global/local, line/project, etc).
<i>Management roles</i>
Communicate overall goals, visions and values. Support development of competence and incremental "bottom-up" innovations. Allow different perspectives influence decisions. Intermediate contacts and knowledge transfers (managers at a middle level are critical for supporting horizontal relations) . Selective centralisation as top-managers intervene in specific problems.
<i>Internal market relations</i>
Decentralized profit responsibility to front line (many small enterprises in the large enterprise). Internal market relations between units. Internal markets for new initiatives Competition for roles and projects
<i>Formal systems</i>
Universal design of systems (for logistics, communication, etc). Fast and detailed reporting systems from front-level to top-level (see through profit systems). Information systems for several dimensions (short/long term, local/global, etc). System-innovations (quality, competence, internal benchmarking, etc).
<i>Views and values</i>
Shared views and values facilitate co-ordination among decentralized actors. Shared views and values increase motivation. Shared views and values promote informal communication and relations, often in horizontal dimensions (verbal communication network). Shared views and values are supported by managers communication, personnel transfers, appreciation of "right" behavior, information through new communication technology, etc.

### **THE M-FORM AS A STARTING POINT FOR ANALYSIS**

How can the summarised picture of new organisational features in large MNEs described above be analysed? Below follows a theoretical analysis of the new organisation of MNEs, based on perspective from new institutional economics and the analysis of the M-form.

Why do new co-ordination forms develop in the economy? New institutional economics explain new forms as social innovations that reduce transaction costs relatively to alternative forms, competitive organisational innovations that diffuse and become part of the economic institutional setting. A well-known example is the U-form (unitary form) developed in the

late 19th and early 20th century (Williamson 1975, 1985). The U-form was an innovation that developed earlier forms, suitable for small and medium sized companies. The U-form reduced transaction costs for co-ordination in large-scale, mass-producing units through increased specialisation, standardisation and predictability. The U-form divided units by function, used a multilevel hierarchy with professional managers and relied on extensive formalisation for co-ordination (Williamson 1975, 1985, Chandler 1990).

The U-form was followed by a multidivisional structure, the M-form, which was invented in the 1920:s. The M-form reduce transaction costs as large enterprises develop further and embrace several products and/or markets. It divides the enterprise into divisions that have responsibility for different markets/products, rather than functions. Divisions are given decentralised responsibilities for their own operations while for the overall strategic decisions are made at the top-level (headquarter). Top-level is hereby separated from the middle-level of divisions. Divisions answering for own profit gives rise to internal market-relations between the units of the large company. Medium-sized semiautonomous companies are hereby created within the large company. Within the different divisions the functional forms normally prevail (Chandler 1962, 1977, 1990, Williamson 1975, 1985).

If the U-form has a capability to reduce transaction costs in large-scale production, the M-form reduce transaction costs when a company become large and diversified, with several products and markets.

Large MNEs have typically been transforming themselves into international M-forms (Stopford & Wells 1972, Franko 1976) and different aspects and variations of these international M-forms have been observed. One variation has to do with the choice between geographical divisions product divisions (if there should be an aim for local adaptation or global specialisation). Other variations have to do with organisational heritages, for example if MNEs are originating from the US, from Europe or from Japan. With time, a different tradition seems to converge. One such trend is for MNEs to organise into an overall global product division structure with regional headquarters supporting product divisions for local market adaptation (Humes 1993).

Hence, the M-form is a multi-dimensional phenomenon. The M-form separates large enterprises into market divisions and creates medium sized semiautonomous companies within the large enterprise. The M-form also separates the strategic level from the operative level, introduce new formal systems and internal market relations. Large MNEs, organised as international M-forms, can thus be associated with several "multi-aspects", they are *multi-*

*divisional*, but also *multi-product*, *multi-factory*, *multi-level*, *multi-hierarchical* and *multi-national* (Calvet 1980, Jansson 1994).

## **THE NEW FORM COMPARED TO THE M-FORM**

In what way does the late development among large MNEs, with a whole set of new organisational features, change the picture? Below a new "W-form" is discussed and characteristic differences compared with the M-form are identified.

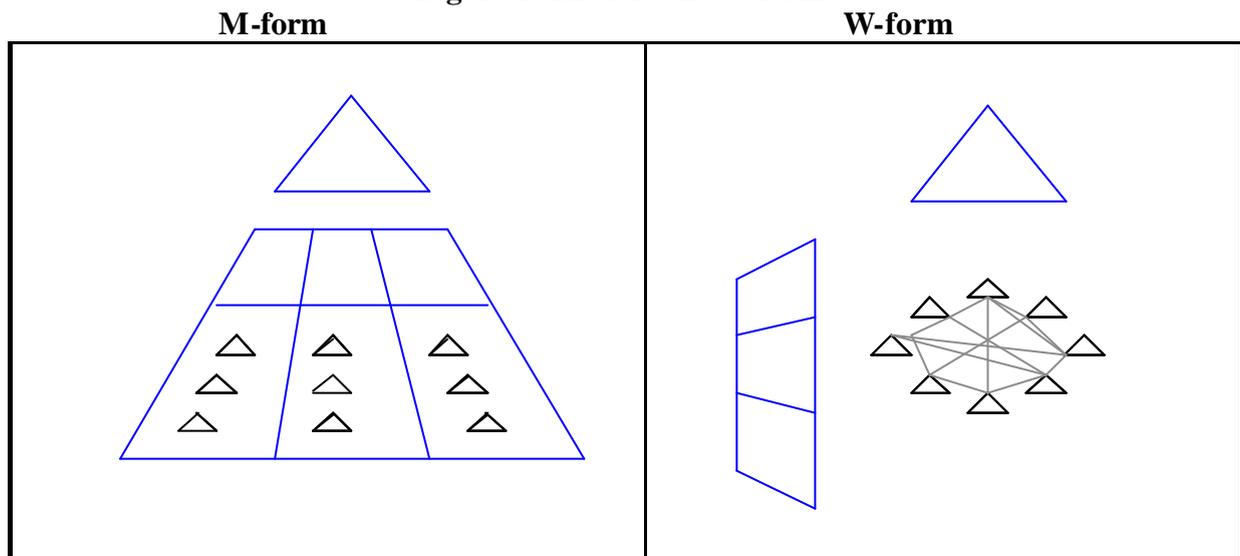
As was shown above that the new organisation in MNEs are given different names by different researchers. This paper suggests the name "W-form" for the new organisational form. The "W" visually illustrates the new organisational structure compared to the top-down-structure of the "M"-form. The new form has increased emphasis on decentralised front-line units and middle and top-levels are given more supportive roles. The hierarchy is hereby, to some extent, turned upside down, hence the letter M is turned to a W. Further, the "W-form" is an abbreviation of the "Web-form" and the word "Web" has equivocal meanings. A "Web" can illustrate a network without a central position, like the web of a woven piece of cloth. But a "Web" can also describe a network with a clear central position, like the web woven by a spider. This equivocally describes the double nature of the new form and the ambition to gain the benefits of both decentralised networks and centralised hierarchies. The "Web" also associates to new information technology, enabling information to be processed in large, decentralised and geographically dispersed organisations. The "W" can finally associate to a new "World"-form and the increased globalisation of large MNEs. Rather than being firms with a clear home country and a clear continental basis, large MNEs are gaining a global basis with many home countries and activities spread over different continents.

How can then the W-form be defined? Armour & Teece (1978) tested the M-form hypothesis and defined the M-form as "a divisionalized structure in which operating and strategic decision-making is clearly separated, the group responsible for the latter monitoring the performance of the group responsible for the former" (Armour & Teece, 1978 p 113). Can features of the new form be expressed with equal simplicity and clarity?

Based on the findings above, a definition of the W-form is: *A co-ordination form that decentralises responsibilities for short term profit and long term development to front-level units who combine with flexibility over the boundaries of divisions to satisfy customer demands. Management at top- and middle levels support co-operation, allocate specialised roles and involve in selective centralisation.*

The W-form is thus more flexible and multi-dimensional than the M-form. New organisational features described above are for example radical decentralisation of profit and development responsibilities and internal market relations. Other new features are reduction of hierarchical levels, the use of parallel processes and overlapping responsibilities, the development of new management roles, multi-dimensional systems of control, increased emphasis of shared beliefs and values and informal relations. The M- and W-form is illustrated below.

**Figure 1. The M- and W-form.**



The illustration above integrates earlier illustrations presented by Bartlett & Ghoshal (1992), Ghoshal & Bartlett (1997) and Jansson (1994). It separates between top-, middle- and front-line units. The M-form separates top- from middle levels and gives the top-level strategic responsibilities (by the triangle at the top of the illustration). The middle level is divided into divisions and each division is given responsibilities for certain front-line units (small triangles). The W-form separates front-line units from divisions and front-line units are given responsibilities for short-term results and long term development. Front-line units are highly specialised and interdependencies among different units are extensive. Middle line is given co-ordination responsibilities for different dimensions of the business, for example specific markets, products or functions. Middle-line support front-line units (give knowledge, mediate contacts, and so forth) and decides on issues concerning several front-line units (for example the allocation of specialised roles among units). The middle-line is put at the side of front-line units to illustrate the more autonomous units and more supporting middle managers. The top-level takes overall responsibility and communicates overall visions and values. It also

intervenes selectively to solve problems, also in operative activities. Differences between the M-form and W-form are further described below.

**Table 3. Characteristics of the M-form and W-form**

<i>Situation:</i>	<b>DIVERGING PRODUCTS IN INTERNATIONAL DISPERSED MARKETS</b> Simple technology in a stable environment.	Adjacent products within core-business in international dispersed markets. Complex technologies in dynamic environments.
<i>Organisational features:</i>	<ul style="list-style-type: none"> <li>• Decentralise profit responsibilities from top- to middle level (divisions).</li> <li>• Separate strategic and operational level.</li> <li>• Development issues and strategic initiatives at the top- and middle levels.</li> <li>• Middle level co-ordinate one-dimensionally, i.e. with a focus on geographical markets for local adaptation <u>or</u> products for global integration.</li> <li>• Units at front-level acts within the boundaries of divisions</li> <li>• Front-line units group their activities by function in permanent structures.</li> <li>• Emphasis on vertical communication, "top-down".</li> </ul>	<ul style="list-style-type: none"> <li>• Decentralise profit responsibilities from middle- to front level units.</li> <li>• Integrate strategic and operational responsibilities.</li> <li>• Units at front-level are given development responsibilities and can take strategic initiatives.</li> <li>• Middle level co-ordinate multi-dimensionally, i.e. with a focus on products (global integration), functions/technology (development and learning) <u>and</u> markets (local adaptation).</li> <li>• Units at the front-level acts in a flexible way over the boundaries of divisions, following customer demand.</li> <li>• Front-line integrate different functions as activities are grouped, with small mini-companies within the large enterprise. Temporary projects cross units and run parallel to more permanent structures.</li> <li>• Vertical and horizontal communication, "top-down", "bottom-up" and in horizontal directions</li> </ul>

One concluding description of this new form is that the new organisational form is multidimensional (Jansson 1994). Would it then not be more stringent to describe it as a matrix? The multidimensional co-ordination should not be confused with a matrix structure. Matrix structures have been analysed by Galbraith (1973) and Davis & Lawrence (1977) and was early observed in MNEs by Stopford & Wells (1972). In the matrix structure two, or more, divisional structures are combined, for example division by products and division by geographical markets, a dual structure that comprise the whole company and is stable over time. In the W-form different dimensions are focused upon in a more flexible way, different for different parts of the company and different over time. The organisation encourages managers to think in many dimensions, rather than imposing formalised matrix structures (Bartlett & Ghoshal, 1992, Ghoshal & Bartlett, 1997).

## NEW "MULTI-ASPECTS" OF THE W-FORM

How can this synthesised picture of a new form in MNEs be explained? One possibility, in line with the tradition in new institutional economics, is to compare new features of the W-form to organisational characteristics of the M-form and to analyse how the new organisational features reduce transaction costs. This explanatory approach is analogous to the analysis of the M-form relatively the U-form, discussed above.

This analysis is centred on different new "multi-" aspects of the W-form. As was presented above, the M-form was characterised as *multi-divisional*, *multi-product*, *multi-factory*, *multi-level*, *multi-hierarchical* and *multi-national* (Calvet 1980, Jansson 1994). Further, the M-form was described as an enterprise with market divisions where each division could be seen as a medium sized semiautonomous company within the large MNE. The M-form separated the strategic level from the operative level and introduced new formal systems and internal market relations. The following discussion identifies eight new "multi-aspects" that are characteristic of a new form in MNEs and discusses transaction costs in the M-form that are reduced in the W-form. The analysis of transaction costs is linked to the more general discussion of economic co-ordination and the choice of hierarchical versus market mechanisms. The new W-form strengthen the use of market mechanisms in the organisation of large enterprises but, at the same time, keep and develop the use of hierarchical co-ordination in situations when it is regarded more advantageous.

*1. Multi-business.* Compared to the U-form, the M-form creates more market-oriented incentives by the decentralisation of general operative responsibilities from the top-level to the middle level of the hierarchy. Within divisions the U-form prevailed, with transaction costs due to the loss of information and weak and distorted incentives that characterise hierarchies compared to market co-ordination (Williamson 1975,1985). One ambition in the present organisational development is to further reduce such transaction costs, linked to the use of hierarchical co-ordination, through "radical" decentralisation to units at lower levels. Responsibility for results is therefore given to smaller units performing operations in the very "front" of the organisation. Responsibility for results is also given to various supporting functions. Whereas the M-form decentralised operational market responsibilities from top- to middle levels, companies with the multi-business ambition decentralise market responsibilities from middle to front levels. Internal market-relations between units also increase, creating stronger and less biased incentives throughout the organisation. Levels between top- and front can hereby be reduced and a flatter structure is created. New information technology supports this organisational development through quick and detailed

report systems, which reduce the transaction costs linked to control of profit-centres. Further, the M-form decentralised operative short-term responsibility but kept strategic long-term responsibility at headquarters. Strategy was an issue for top- and, to some extent, divisional management. This did not encourage interest for long-term development at lower levels. Problems that followed were short-term orientation and dispersed firm-specific knowledge and initiatives became under-utilised (Hayek 1945). These problems increase as the environment of enterprises is getting more dynamic and technologies are becoming more complex. The "multi-business ambition" aims at reducing these transaction costs by decentralising strategic, as well as operative, responsibilities. The M-form is divided into relatively smaller front-line units with profit- and development responsibilities. The M-form with medium sized companies within the large company is hereby developed into a form with many small, rather than a few medium-sized, companies within the large MNE and with strategic long term responsibilities as well as operational responsibilities decentralised to front level units.

2. *Multi-input and multi-local.* Then why are not large MNEs divided into separate autonomous companies, co-ordinated by the market mechanism? The maintaining of an overall enterprise-framework can be explained from the general advantages that are obtained by hierarchical structures. One such advantage is connected to the entrepreneurial function. The entrepreneur, acting as an intermediary, reduce transaction costs between customers and producers, reaching transactional economics of scale in search for information, contract negotiation, design and quality control (Akerlof 1970, Cheung 1983, McNulty 1984). Large MNEs perform these functions internationally, co-ordinating global webs of producers and customers. Information asymmetries are balanced by the credibility and reputation of the large MNE and are communicated through brands or the company-name (an investment with scale-economics in itself). In the M-form, this entrepreneurial function is rather centralised and held at top- and divisional levels. In stable and homogenous markets this might be sufficient, reaching the maximum transactional economics of scale. But with increased change and heterogeneous demands, information held at centralised positions is insufficient and if customers demand products from different parts of the MNE (separately or as "system products"), the structure with separated divisions might cause customer confusion and duplication problems. The multi-input and multi-local ambition is to decentralise the entrepreneurial role to the front-level, thereby increase flexibility. A unit at the front level represents the whole "menu" of the large MNE in the local market and local units act as intermediates between local customers and the whole MNE. Compared to more centralised

positions, local units with specific knowledge can reduce transaction costs for developing customised products. Customer demands determine the specific combinations that are offered by front-line units. This is supported by the radical decentralisation of operational and development responsibilities, units are free to interact with other units in a flexible way. Other mechanisms used to increase flexibility are lateral mechanisms with informal relationships and standardised information systems for communication and logistics.

3. *Multi-centre.* A "market-advantage" compared to hierarchical co-ordination is that markets aggregate demands from different sources and encourages specialisation in production (Williamson 1985). But market-demand has limitations due to information- and negotiation costs, increasing with geographical distances and national borders. And as specialisation increases, transaction-specific investments and team-work-problems increase. Even if foreign markets are open there are fixed "establishment" costs (Hymer, 1976). The MNE have advantages since it embrace dispersed markets and can allocate demand to units at certain locations, hereby creating larger markets and at the same time secure a higher degree of specialisation than what is possible for local companies. An advantage with large MNEs, compared to local companies, is that they can solve problems due to limited access to international markets and the transaction-specific investments and teamwork situations (joint production) that might follow from such specialisation (Alchain & Demsetez 1972, Williamson 1975, 1985, Alchain & Woodward 1987). The multi-centre ambition emphasises this potential and reach increased specialisation within dispersed units. Different units are given roles as "centres of excellence" for manufacturing, services and research, supplying the whole MNE in certain specified areas, reaching gains from specialisation and economics of scale when reaching different dispersed markets covered by the MNE. The allocation of roles as "centres" gives rise to internal competition and is co-ordinated on middle and top levels.

4. *Multi-competition.* Market co-ordination is characterised by competition that makes incentives stronger and more directed towards productive and innovative efforts than what is the case in hierarchies (Williamson 1985). But also in this respect MNEs can have advantages compared to markets. As with the multi-centre ambition MNEs can overcome disadvantages due to market fragmentation. Local markets have a limited number of competitors, reducing the level of rivalry. And customers have limited information, which impede comparison, especially when products are complex. The M-form increased the use of the price-mechanism through market-relations and competition among divisions, i.e. for investments. The multi-competition ambition develops the use of price mechanisms further through radical decentralisation and systematic comparisons. Incentives are strengthened by external market

competition, a unit does not have monopoly on a certain product within the MNE and other units are free to turn to producers outside the company. And the units within the MNE are systematically compared and measured against each other. Compared to autonomous local enterprises, the level of competition hereby increases. Also the quality of competition changes. Different units are compared with detailed information of their performance and involves final products as well as specific processes, something that is not possible in external market competition. Furthermore, the possible consequence of competition increases. One efficient unit within the MNE can teach other units, rather than forcing them out of business. Hence the competitiveness of the whole MNE increase compared to others.

5. *Multi-process.* Within the divisions of the M-form the U-form prevailed with separated operational functions. Functional separation has problems caused by myopic perspectives, problems with total quality and flexibility, problems that increase with higher demand for quality and customised products. The M-form reduced such problems at the middle-level of the large MNE. Division-management was given responsibility for the whole process connected to, for example, a certain line of products. Hereby managers were given incentives to focus on total results and customer interests rather than functional interests. The multi-process ambition is to continue this effort and to reduce transaction costs due to functional fragmentation at lower levels, regrouping work according to processes and performing different tasks along the value chain rather than functions. The total result for customers is thereby focused, with time to market and total quality as important variables. This ambition can be seen in manufacturing units, supporting functions (often integrated with manufacturing) and development units. The transformation creates small cells of market-based groups responsible for a certain process rather than cells responsible for functions, creating "mini-companies" within the front-line units of the large MNEs. (The multi-competition ambition discussed above is thereby strengthened). The multi-process ambition is achieved by changes in formal structure and redefinition of the grouping of units, by new systems of planning and control, focusing quality dimensions and end result of processes, and by efforts to develop competence among employees to increase flexibility and teamwork-abilities. Also management-styles are affected. Functional managers that used to act as experts and manage by instructions are substituted with process managers that are team-leaders, manage by objectives and support learning and the development of skills.

The tendency towards processes is also seen in the increased use of projects, running parallel to the operational line structure. One example is the increased co-operation of different functional experts, to improve speed and quality in R&D. The orientation towards

processes can also be seen in overall planning and control systems that focus on multiples of variables linked to activities and development and more dimensions than the monetary side of business.

6. *Multi-knowledge flows.* Hierarchical co-ordination has advantages compared to market co-ordination when it comes to transfer specific knowledge (Williamson 1985, Liebeskind 1996). The M-form transferred firm-specific knowledge top-down, from the centre to peripheral units. In the current development, firm-specific knowledge are developed at dispersed locations, therefore gains can be made through transfers in many directions; top-down, down-up and horizontally. But the line of authority and divisional borders create transaction costs for such transfers. Dispersed units lack information of others units and the means to co-ordinate transfers are limited to vertical relations. The ambition of "multi-knowledge flows" aims at reducing such costs, to encourage development of dispersed specific knowledge and to facilitate and encourage transfers of knowledge in many directions. Compare the ambition to the situation of an autonomous firm in the market system. MNEs use radical decentralisation and thereby resemble the performance of markets. MNE can surpass markets when it comes to competition, as discussed above. MNEs also resemble markets when it comes to multiplicity and dynamics through the dispersed development of specific knowledge. But MNEs use central co-ordination, which reduce duplication and promote units to complement each other. MNEs can also reduce transaction costs when it comes to imitation of innovations, reducing costs for transfer of specific knowledge between highly autonomous units. Compared to autonomous local companies, MNEs can reduce costs for gaining information of specific knowledge in different dispersed units. Information of specific knowledge in different units can be stored in company-wide information systems, internal newsletters publishing new developments, systems for comparing performance, catalogues of "who knows what where", etc. Managers at middle levels can track and initiate transfers. Favourable conditions for spontaneous, informal relations can be promoted through personal transfers and cross-unit meetings.

7. *Multi-combinational development.* The M-form separated strategic and operational levels. Hereby long-term strategic decisions were centralised and short-term operative decisions were decentralised. The function of innovation and development were primarily issues for centrally placed R&D-units and development had sequential biases, starting with research and development, then implementation by other functions (manufacturing, purchasing, sales) at divisional levels. This caused transaction costs due to time lags between

development and functional implementation, losses and mistakes when different functions did not consider each other's specialised experiences and knowledge.

A present tendency in MNEs is to become multi-combinational, to combine dispersed knowledge for development and innovation. This is achieved through cross-unit and cross-level collaborations in close relation to customers, using participants at different levels, units and functions. Development projects run parallel to the operational structure and involve participants from geographically dispersed units and from different functions, for example, R&D, purchasing, manufacturing and marketing departments. Intense communication, made possible by new IT-technology and extensive travelling, facilitate co-operation between participants. Compared to the sequential, top-down, development process of the M-form this reduces time lags and mistakes and increases quality.

Intern-unit collaborations of this kind are difficult to co-ordinate through market transactions, due to problems with teamwork and transfer of specific knowledge. In the M-form the strategic/operational separation and the borders between divisions, business-units and functions prevent such collaborations. The multi-combinational ambition reduces these transaction costs through the decentralised responsibility for development and the use of cross-unit and cross-functional projects.

8. *Multi-initiated change.* Hierarchies have advantages in the creation of radical change. Different units can be given orders to follow the visible hand of a top-manager, and together move in a certain direction. Markets, on the other hand, have advantages when it comes to incremental change, allowing different decentralised actors to experiment according to "the invisible hand" of price-signals. If the best knowledge is held at central positions, or if teamwork efforts and transaction-specific investments are needed, centralised, radical change can be motivated. But if the best knowledge is dispersed among different actors, the incremental approach has advantages (Williamson 1985). A present ambition in MNEs is to reach for the advantages of both, creating multi-initiated change. Decentralised responsibilities and internal competition gives strong market-incentives and incremental development. Top- and middle management are still involved in strategic and operational issues, using selective centralisation to support incremental innovations and to co-ordinate radical change.

## **NEW PROBLEMS IN THE W-FORM - FINAL REMARKS**

Researchers that describe new organisational features of MNEs are optimistic about the possibilities of a new form. The disadvantages, conflicts and contradictions are not

emphasised in the literature. What kind of disadvantages can be foreseen? How can disadvantages be reduced? Below follows a discussion of problems that can be expected in the W-form.

One problem is, for example, that the "multi-process" ambition will cause loss of functional specialisation and confusion among different functions might follow when shared responsibilities are given for whole processes. Another problem is connected to "multi-knowledge flows" and inadequate receiver capacities due to lack of basic knowledge, for example languages or technical skills, which might create problems. A third problem might occur in "multi-combinational" developments if people can have difficulties to communicate and come to agreements. People have different perspectives and cultural backgrounds, which might lead to misunderstandings and conflicts. Forth, "multi-combinational" development projects might face problems if line management is reluctant to "share" employees with project-groups.

The examples above illustrate new problems in the W-form. The most important disadvantages have to do with the increased urge to combine a decentralised market-oriented structure within a centralised, hierarchically co-ordinated enterprise. Rather than reaping the benefits from both the market and the hierarchical mechanisms, the opposite might be at risk leaving the W-form in the worst of worlds. Is this combination of market and hierarchy really feasible? Some examples illustrate the dilemma.

The "multi-business" enterprise can lead to sub-optimisation problems. The strong orientation towards unit profits can, for example, create narrow-minded front-line managers, uninterested in sharing expertise which hinders "multi-knowledge flows". Further, narrow-minded front-line managers can be reluctant to collaborate in "multi-combinational" development projects.

The lack of overall perspective at the front-level might cause other problems. Top and middle (divisional) levels have the best knowledge of the overall situation of the large MNE, knowledge that is valuable also at the front-level, for example when customising products for local customers. Decentralised front-line entrepreneurs can be informed about the overall situation but, again, incentives might lead autonomous units in other directions.

As decentralised units face problems to reap the benefits of a large enterprise, movements like the "multi-centre" ambition leads to problems in a decentralised system. High levels of unit-specialisation increase interdependencies and make multi-centre enterprises vulnerable with a low degree of local adaptability and low internal competition. The "multi-centre" ambition work in a contradictory direction compared to ambitions like "multi-

business", "multi-local" and "multi-competition". Strong elements of transaction specific investments and "team-work" situations (joint production) call for hierarchical co-ordination as enterprises change into a multi-centre direction.

The literature that touches upon these problems suggests some general solutions, illustrated by Bartlett & Ghoshal (1992, 1993). First, new information technology is seen as a general facilitator of new organisational features. New "see-through" systems help top- and middle managers to keep track on decentralised front-line units. But can new information technologies solve the contradictions, or is the new technology merely a new vehicle that enables a shift toward more decentralisation? How can the contradictions be handled?

Second, the organisation can use selective centralisation. The idea is that the organisation should be decentralised, but top- and middle managers are expected to intervene when there is need for centralisation. A problem with this selective approach though, is the confusion and uncertainty that might follow. How can top-managers know when it is appropriate to intervene? What influence will the possibility of intervention have on lower levels? The simultaneous use of "top-down" and "bottom-up" can be fragile and decentralisation might be undermined causing de-motivation and conflicts.

Shared responsibilities, as mentioned above, is a third option that is discussed. The use of shared responsibilities is illustrated with matrix elements. For example two managers with different perspective (global and local) might take responsibility for a certain business. This is a traditional way to solve problems in organisations when more than one dimension is regarded as influential. But it is a controversial solution. Shared responsibilities might generate conflicts and prolong decision-making.

Finally, a shared system of views and values is often emphasised as a solution to problems in the new organisation of large multinational enterprises. If managers have the right mind-set they will be able to handle contradictions and conflicts. The designers of organisational structures have neglected the managerial capacities. Front-line managers could for example share views and values that make them less narrow-minded, more co-operative. But what are the views and values that are solving the problems? And how does members of the organisation come to internalise them? The problem is how, by what mechanisms, the "right" views and values are developed. Using "shared views and values" as the big solution to organisational problems might be attractive, but it gives rise to many new questions.

## CONCLUSION

Organisational changes in large MNEs have received a large amount of interest among researchers during the last decades. Scholars agree on the notion that a new organisational form is emerging, but the identified characteristics and the theoretical explanation of such a new form varies. Different organisational changes and various new elements are observed and different theoretical approaches are used to explain the development. This paper points at combinational possibilities in this research tradition. Contributions overlap and complement each other, one adding aspects to the others. Therefore, the work of different researchers can be synthesised into a more comprehensive conceptual framework which is structured in four different organisational dimensions; organisational structure, management roles, internal markets, formal systems and shared views and values. This synthesised framework presents a more holistic view than partial contributions and helps us see beyond the traditional focus on formal, vertical structures.

This paper also investigates the possibilities to analyse such an integrated framework theoretically, based on transaction cost economics. Here the new form – called W-form - is compared to the M-form and significant differences in organisational features between the two forms are identified. The analysis enables identification of new “multi-aspects” in the W-form, reaching beyond earlier identified multi-aspects of the M-form. From the view of transaction cost analysis, the new organisation of MNEs are aiming at advantages in both market and hierarchal governance structures, advantages that can be identified and explained from transaction cost economics. Transaction cost economics have earlier proven to be fruitful in the theoretical understanding of yesterday’s large organisations (M-form), and is a promising theoretical approach when analysing the present development of a new form (“W-form”).

Finally some critical remarks can be made. First, research that describes the new organisational features in MNEs are systematically underestimating or neglecting the disadvantages of new organisational innovations that propose. Suggested organisational changes needs to be analysed in a more critical and nuanced manner, with identification of costs and benefits alike. Further, the theoretical analysis of governance structures has a focus on choices between alternatives of mechanisms (market vs hierarchal), rather than combinations. Large and complex organisations use sets of mechanisms and needs to be analysed from a theoretical view where combinations of mechanisms are in focus.

## BIBLIOGRAPHY

- Akerlof, G. A. (1970) "The Market for 'Lemons'; Quality Uncertainty and the Market Mechanism". *Quarterly Journal of Economics*, vol 84, no 34 pp 488-500
- Alchain, A. A., Demsetz, H. (1972) "Production, Information Cost and Economic Organization", *American Economic Review*. Vol 62, pp 777-795
- Alchain, A. A., Woodward, S. (1987) "Reflections on the Theory of the Firm." *Journal of Institutional and Theoretical Economics (JITE)*, 110-136.
- Andersson, U., Forsgren, M. (1994) "Degree of Integration in some Swedish MNCs" *Working paper* 1994/4. Företagsekonomiska Institutionen. Uppsala Universitet.
- Armour, H. O., Teece, D. J. (1978) Organizational Structure and Economic Performance: a Test of the Multidivisional Hypothesis. *Bell Journal of Economics*.) 9:2 Spring.
- Baba Y., Imatai K., (1993) "A Network View of Innovation and Entrepreneurship: The Case of the Evolution of the VCR Systems" *UNESCO*. Blackwell Publishers.
- Bartlett, C. A. (1986) "Building and Managing the Transnational: The New Organizational Challenge". I "Competition in Global Industries". Porter, M. E. (ed) Harvard Business School Press.
- Bartlett, C. A., Ghoshal S. (1992) "Transnational Management. Text, Cases, and Readings in Cross-Boarder Management". Irwin.
- Bartlett, C. A., Ghoshal S. (1993) "Beyond the M-form: Toward a Managerial Theory of the Firm". *Strategic Management Journal*, Vol. 14, 23-46
- Berggren, C. (1996) "Building a truly global organization? ABB and the problems of integrating a multi-domestic enterprise." *Scandinavian Journal of Management*, vol 12:2, pp. 123-137
- Birkinshaw, J. (1996) "How multinational subsidiary mandates are gained and lost". *Journal of International Business Studies*, Vol. 27:3, pp. 467-496.
- Bradach, J. L., Eccles, R. G. (1989) "Price, authority and trust: from ideal types to plural forms" *Annual Review of Sociology* Vol. 15, pp. 97-118
- Buckley, P. J., Casson, M. (1998) Models of the Multinational Enterprise. *Journal of International Business Studies*, Vol 29:1, p 21-44
- Calvet, A. L. (1980) "Markets and Hierarchies: Toward a Theory of International Business" *Massachusetts Institute of Technology (Dissertation)*. Boston.
- Casson, M. (1979) "Alternatives to the Multinational Enterprise". The Macmillan Press.
- Caves, R. E. (1971) "International Corporations: The Industrial Economics of Foreign Investment". *Economica* 38 (february). Oxford Economic papers/Oxford Clarendon P.
- Caves, R. E. (1982) "Multinational Enterprise and Economic Analysis". Cambridge University Press.
- Caves, R. E. (1996) "Multinational Enterprise and Economic Analysis. Second edition". Cambridge University Press.
- Chandler, A. D. (1962) "Strategy and Structure: Chapters in the History of the American Industrial Enterprise" MIT Press, Cambridge, Mass.
- Chandler, A. D. (1977) "The Visible Hand", Harvard University Press, Cambridge, Mass.
- Chandler, A. D. (1990) "Scale and Scope The Dynamics of Industrial Capitalism". The Belknap Press of Harvard University Press. Cambridge Mass.
- Cheung, S. N. S. (1983) "The Contractual Nature of the Firm". *Journal of Law and Economics* Vol 26 pp 1-21
- Davis, S., Lawrence, P. R. (1977) "Matrix". Addison-Wesley.
- Doz, Y. L., Asakawa, K., Santos, F. P., Williamson, P. (1996) "The Metanational Corporation" Paper prepared for the *Academy of International Business Annual Meeting* in Banff, Canada, September 26-29.

- Doz, Y. L., Prahalad, C. K. (1991) "Managing DMNCs: A Search for a New Paradigm". *Strategic Management Journal*, 12, Special Issue, Summer, 145-64.
- Dunning, J. H. (1981) "Explaining the International Direct Investment Position of Countries: Towards a Dynamic or Developmental Approach". *Weltwirtschaftliches Archiv/Zeitschrift des Instituts für Weltwirtschaft Kiel*.
- Edström, A., Galbraith J. R. (1977) "Transfer of Managers as a Coordination and Control Strategy in Multinational Organizations" *Administrative Science Quarterly*, June, vol 22.
- Egelhoff, W. G. (ed) (1998) *Transforming International Organizations*. Edward Elgar. (Elgar Reference Collection).
- Forrester, J. W. (1993) "A New Corporate Design" i Halal W.E. (eds) "Internal Markets. Bringing the Power of Free Enterprise Inside Your Organization" John Wiley & Sons Inc.
- Forsgren, M. (1990) "Managing the International Multi-Centre Firm: Case Studies from Sweden", *European Management Journal*, Vol. 8, No. 2, June, pp 261-267
- Franko, L. F. (1976) "The European Multinationals A Renewed Challenge to American and British Big Business" Harper and Row, London.
- Fulk, J., DeSanctis, G. (1995) "Electronic Communication and Changing Organizational Forms". *Organization Science*, Vol. 6. No 4, july-august pp 337-349. Galbraith, J., (1973) "Designing Complex Organizations" Addison-Westley.
- Galbraith (1973) "Designing Complex Organisations". Addison-Westley.
- Ghoshal, S., Bartlett, C. A. (1997) "The Individualized Corporation". Harper Collins Publishers.
- Gupta A. K., Govindarajan V. (1991) Knowledge Flows and the Structure of Control within Multinational Corporations. *Academy of Management Review* Vol. 16. No 4, 768-792
- Hagström, P. (1991) "The 'Wired' MNC. The Role of Information Systems for Structural Change in Complex Organizations". Institute of International Business. Stockholm School of Economics.
- Hayek, F. A. (1945) "The Use of Knowledge in Society" *American Economic Review* (Sept) 519-530
- Hedlund, G. (1986) "The Hypermodern MNC - A Heterarchy?" *Human Resource Management*, Spring, vol 25, no 1, 9-35.
- Hedlund, G. (1994) "A Model of Knowledge management and the N-form Corporation" *Strategic Management Journal*, Vol. 15, 73-90.
- Hedlund, G., Ridderstråhle, J. (1997), "Toward a Theory of the Self-Renewing MNC", i Toyne B., Nigh, D (eds). *International Business: An Emerging Vision*, Columbia SC: University of South Carolina Press, 329-54
- Hennart, J-F. (1982) "A Theory of Multinational Enterprises" Ann Arbor University Press.
- Hirsch, S. (1976) "An International Trade and Investment Theory of the Firm." *Oxford Economic Papers*, 3.
- Humes, S. (1993) "Managing the Multinational. Confronting the Global - Local dilemma" Prentice hall.
- Hymer, A. (1976). *The International Operations of National Firms: A Study of Direct Investment*. MIT Press, Cambridge Mass.
- Jansson, H. (1994) "Transnational Industrial Corporations in South East Asia. An institutional approach to industrial organization" Edward Elgar.
- Jelinek, M. (1979) "Institutionalizing Innovation" New York, Paeger
- Liebeskind, J. P. (1996). Knowledge, Strategy, and The Teory of the Firm. *Strategic Management Journal*, Vol. 17 (Winter Special Issue), 93-107.
- Magee, S. P. (1977) "Multinational Corporations, the Industry Technology Cycle and Development" *Journal of World Trade*. July/August pp 297-321.

- Malnight, T. W. (1995) "Globalization of an Ethnocentric Firm: An Evolutionary Perspective", *Strategic Management Journal*, Vol. 16, 119-141.
- Malnight, T. W. (1996) "The Transition from Decentralized to Network-based MNC Structures: An Evolutionary Perspective" *Journal of International Business Studies*, First Quarter, 43-65.
- Marchan, R. (1996) "New Structural Forms and Inter-Unit Communication in Multinationals". Helsinki School of Economics and Business Administration. A-110.
- Martinez, J. I., Jarillo, J. C. (1989) "The Evolution of Research on Coordination Mechanisms in Multinational Corporations" *Journal of International Business Studies*, Fall, 489-513.
- McNulty, P.J. (1984) "On the nature and theory of economic organization: the role of the firm reconsidered" *History of Political Economy* 16:2. Duke University Press.
- Miles, R. E., Snow, C. C. (1984) "Fit, failure and the Hall of Fame". *California Management Review*, vol. 26, no. 3, pp 10-28.
- Miles, R.E., Snow, C. C. (1993) "Internal Markets and Network Organizations" i Halal W.E. (ed) "Internal Markets. Bringing the Power of Free Enterprise INSIDE Yopur Organization" John Wiley & Sons Inc.
- Mintzberg, H. (1983) "Structure in Fives. Designing Effective Organizations" Prentice/Hall International, Inc.
- Mintzberg, H. (1994) "The Rise and Fall of Strategic Planning" Prentice Hall.
- Nohria, N., Ghoshal, S. (1997) "The Differentiated Network. Organizing Multinational Corporations for Value Creation." Jossey-Bass Inc.
- Nonaka, I. (1994) "A Dynamic Theory of Organizational Knowledge Creation" *Organization Science*, Vol 5, No. 1, February.
- Ostroff, F. (1999) "The Horizontal Organization". Oxford University Press.
- Ouchi, W. (1980) "Markets, Bureaucracies, and Clans" *Administrative Science Quarterly*. 1980:25, s 120-142.
- Perlmutter, H. V. (1969) "The Tortuous Evolution of the Multinational Corporation" *Columbia Journal of World Business*. January-February.
- Peters, T. (1992) "Liberation Management. Necessary Disorganization for the Nanosecond nineties". Macmillan. London.
- Prahalad, C..K., Hamel G. (1990) "The Core Competence of the Corporation" *Harvard Business Review*, May-June.
- Ridderstråle, J. (1992) "Developing product development. Holografic design for successful creation in the MNC". (Paper) *EIBA Annual Meeting*, Reading, December.
- Ridderstråle, J. (1996) "Global Innovation - Managing International Innovation Projects at ABB and Electrolux" Dissertation, Institute of International Business, Stockholm School of Economics.
- Stacey, R. (1992) "Managing Chaos. Dynamic Business Strategies in an Unpredictable World" Kogan Page. London.
- Stopford, M., Wells L. T. (1972) *Strategy and Structure of the Multinational Enterprise*. New York. Basic Books
- White, R., Poynter, T. A. (1990) "Organizing for World-Wide Advantages". I Bartlett, C., Doz, Y., Hedlund, G., (eds) "Managing the Global Firm". Routledge, 95-113.
- Whittington, R. (1991) "Changing control strategies in Industrial R&D". *R&D Management*, 21, 1: 43-53
- Williamson, O. E. (1975) "Markets and Hierarchies: Analysis and Antitrust Implications". New York. Free Press.
- Williamson, O. E. (1985) "The Economic Institutions of Capitalism" New York. Free Press
- Williamson, O. E. (1996) "The Mechanisms of Governance" Oxford University Press.