

Working Paper Series 2003:8

**On the idealized institutional evolution of
organizational forms**

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ABSTRACT

Several researchers analyse organisational forms as an idealised historical evolution where new organisational forms build on earlier established forms. These idealised theoretical approaches have the advantages of creating an overall understanding of the variety of organisations that can be observed at a given time. They also explain this variety with a simple evolutionary logic: New organisational innovations occur in established forms. If they prove competitive they will be imitated and, with time, new forms will emerge. Hereby organisational development is not only a question of situational fit, but also due to historical dependencies. Different contributions observe different forms and give different theoretical explanations. This paper suggests an extensive framework of different organisation forms and links this framework to an elaborated theoretical analysis based on new institutional economics and other fields of organisation theory. The theoretical analysis is based on the four co-ordination mechanisms *authority, rules, price and ideology*. The organisational development is analysed as a stepwise development where forms develop from one level to another with time and increased scale. At the first level the *Simple hierarchy* and the *Adhocratic form* is identified. At a second level the *U-form* and the *Professional form* follows. At the third level, the *M-form* and *H-form* of large enterprises are identified. Finally, at a fourth level a new form, the *W-form*, is identified. The development is explained by identification of situational factors and by the use of different co-ordination mechanisms. As the idealised evolution continues, more sophisticated forms develop which modify and extend the use of the co-ordination mechanisms of earlier forms.

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Ideal evolutionary approaches are present in various areas of the social sciences. Evolutionary approaches categorise institutions at a certain time and presents connected descriptions of their characteristics. They also identify development paths where certain institutions build on others. Relations between institutions are hereby mapped, which in sum gives an overall picture of the institutional development. Sometimes the different institutions and their characteristics and relations also theoretically explained by, for example, elements in the institutional environment that push the development. The approach was popular in the early phases of social sciences and is a popular pedagogical tool, illustrated by Scott (2001).

In business studies, the evolutionary approach appears in various fields. One important area concerns the rich variety of enterprise-organisation that can be observed in modern societies. To grasp this variety concepts like "organisation form" (or configuration, governance structure, etc) have been introduced. Hereby recurrent features in many companies are analysed as elements in the same general form. Further, different forms are regarded as following each other in an institutional development. Such idealised theoretical approaches have the advantages of giving an overall description of the variety of organisations in society and can explain this variety from a basic evolutionary logic: New organisational innovations occur in established forms. If they prove competitive they will be imitated and, with time, new forms will emerge, an explanation that integrates perspectives that emphasise both situational fit and historical dependencies.

Different contributors observe different forms and give theoretical explanations to their development. Important contributions in this field have been given by Chandler (1962, 1990), Williamson (1975, 1985), Mintzberg (1983) and Miles & Snow (1984). Sometimes the perspective is used with a narrow focus, for example when two types of organisation are related to each other (as with Chandler and Williamson). In other cases the perspective is used in more comprehensive ways to analyse the entire variety of organisations in the economy (as is the case with Mintzberg and Miles and Snow). The perspective can be connected to a rather weak or implicit theoretical basis (as illustrated by Chandler and Miles & Snow). Others use more elaborated and explicit theories to explain (illustrated by Williamson and Mintzberg). Here a set of ideal organisation forms are identified and co-ordination mechanisms and situational factors in different forms are analysed. Thus the field of research is characterised by extensive descriptions of different forms and rather weak theoretical analyses, as illustrated by Miles & Snow (1984), or elaborated theoretical explanations but limited identifications of different forms, as explained by Williamson (1975,1985), or rather elaborated and consistent

theoretical analysis and a rather extensive description of organisational forms, as illustrated by Mintzberg (1983).

This paper aims to stretch this research frontier by suggesting an extensive framework of different organisation forms (a framework that integrates and extends earlier contributions). The aim is also to link this framework to an elaborated theoretical analysis based on new institutional economics and other fields of organisation theory. Hereby a more extensive description of forms and a more consistent theoretical basis can be created.

FOUR CO-ORDINATION MECHANISMS

Authors that analyse organisation forms describe their characteristics and explain their functions by their specific situation (environment) and the co-ordination mechanism that are used to efficiently handle the specific situation. A certain form hereby contains mechanisms that are adapted to a certain situation. But different authors identify different mechanisms from different theoretical traditions. To analyse the development of organisation forms, this paper use four mechanisms: authority, rules, price and ideology. (This section was earlier presented in Pihl, 2000.)

A basis for this analysis is economics and the study of the price mechanism of the market as the one and only solution to the co-ordination problem. New institutional economics extends this theory and introduce the choice between the price-mechanism of markets and the unified governance of hierarchies. Extensions of NIE has identified co-ordination by "trust" or "ideology" as a third option used in forms that has been named clans, networks or brotherhoods (Ouchi 1980, Powell 1991, North 1992, Collin 1993). Braddach & Eccles (1989) build on these contributions and identify price, authority and trust as fundamental co-ordination mechanisms, they also make clear the distinction between mechanisms and forms. Within the field of management studies and organisation theory, however, several co-ordination mechanisms are discussed in more detail. This discussion was early summarised by Edström & Galbraith (1977) as a choice between co-ordination by centralisation, bureaucratisation and socialisation. Later contributions distinguish between centralisation, formalisation and socialisation (Bartlett & Ghoshal 1992).

Price and authority

Taken together, these different traditions have combinatorial possibilities. The bipolar framework of NIE (price-authority) and its extended tripolar version (price-authority-

trust/ideology) can be combined with the tripolar framework of Organisation theory (centralisation, formalisation and socialisation). The result is a quadripolar framework with the four co-ordination mechanisms *authority* (corresponding to centralisation), price (market relations) *rules* (bureaucratisation, formalisation) and *ideology* (trust, socialisation, culture). *Price* refers to the exchange between autonomous parties, *Ideology* to shared systems of values and beliefs, *Authority* to the commands of a superior to subordinates, and *Rules* refer to co-ordination by formal regulations and instructions. The four mechanisms can be analysed separately from specific forms as alternatives that can be combined in various ways, depending on the transaction costs in specific situations. Thus, all mechanisms can occur in market relations (the price-mechanism will be the most significant) and in hierarchical forms. Then why should one co-ordination mechanism be used before the other? The choice between price and authority can be deduced from the field of new institutional economics and the theory of markets vs. hierarchies. The choice between rules (formalisation) and ideology (socialisation) can, on the other hand, be explained from the view of Organisation theory, more specifically by using its analysis of formalisation and socialisation/culture as alternative options in organisations.

New institutional economics argue that *price* can be an effective mechanism when the distribution of information is symmetrical and there are alternative exchange partners. Strong, productive incentives are created and the relative-prices allow co-ordination with a minimum of information required. Another, and more dynamic, advantage is that decentralised actors use their dispersed specific knowledge for development with a multitude of competing experiments and an incremental process (Hayek 1945, Williamson 1985). Co-ordination by price also allows demand from different sources to be allocated, enabling indivisible resources to be fully utilised.

On the other hand, asymmetrical information and lack of alternative exchange partner motivate co-ordination through the involvement of an authority. New institutional economics explains this entrepreneurial role from a transaction cost view. The entrepreneur acts as a middleman between many buyers and sellers. Hereby the entrepreneur reaps scale advantages compared to individual buyers/sellers in collecting information, in design of a product, in negotiating contracts and in performing control-functions (Akerlof 1970, Cheung 1983, McNulty 1984). Then why does the entrepreneur sometimes develop authority over those that contribute to a product? Teamwork-situations (or joint production) have explained the need for authority. When individual contributions in a group are difficult to separate from each other an authority can act as a centre for communication, make decisions and give sanctions,

thereby reducing transaction costs for information and misdirected incentives in teams (Alchain & Demsetz 1972, Williamson 1975, Alchain & Woodward 1987). Asset-specific investments are another reason for co-ordination by authority, as they reduce the risk for opportunistic behaviour when one party is adapting especially for another party. Asset specificity thus explains vertical integration of different steps in production (Williamson 1985, Alchain & Woodward 1987). A third reason for authority is transfer of specific knowledge, i.e. unique knowledge that is difficult to articulate and formalise (Polyani 1958). Co-ordination through price meets transaction costs due to the information paradox (Arrow 1973) and due to difficulties to secure ownership rights, which explain firm expansion by horizontal integration (Teece 1982, Williamson 1985, Liebeskind 1996). Specific knowledge is a heterogeneous asset that explains competitive advantages (Penrose 1959:1980, Barney 1991) and therefore, control of knowledge-diffusion is crucial. Finally, co-ordination by authority has dynamic advantages due to the possibility for managers to monitor different parties to rapidly move into a new direction. When central positions have information advantages a superior party can direct others to perform a radical change, which is a final argument for co-ordination by authority (Williamson 1991).

Co-ordination through the commands of an authority has, of course, also disadvantages compared to the price-mechanism. One disadvantage is weak and biased incentives due to the fact that rewards to subordinates do not directly correspond to their contributions to final results (Alchain & Demsetz 1972, Williamson 1985). Another disadvantage is the costs of hiring superiors, and the risk that superiors act in accordance to their own interests. These principal-agency problems raise the question of how to control managers and create efficient incentives (Fama 1980, Fama & Jensen 1983, Williamson 1985).

Rules and Ideology

Co-ordination by rules and ideology correspond to the formal and informal restrictions that guide behaviour in society, as described by North (1990). Ouchi (1980) discusses rules (formal regulations and instructions) as a mechanism used in bureaucracies. Rules can also be used in other forms. Rules are explicit *ex ante* constructions illustrated by formal contracts in market exchanges. Within firms, written manuals and planning systems illustrate the use of rules. Rules (formalisation) have played an important role in the writings of organisation theorists and cover different levels and functions in organisations, from work operations to the overall firm-strategy (March & Simon 1958:1994, Jelinek 1979, Mintzberg 1994). Co-ordination by rules is an alternative to co-ordination by authority, i.e. analysed as a choice

between centralisation and bureaucratisation (Child 1973). Rules are also an alternative to ideology, i.e. illustrated by co-ordination in the mechanic and organic organisation form as described by Burns & Stalker (1961). Rules reduce costs of communication between individuals and reduce the need of interpretations made by actors. Rules save time and efforts in recurrent situations. Rules also provide stability as future performance can be specified in advance (Galbraith 1973).

Rules are used in predictable situations or in situations where predictability is desired (for example for security reasons to prevent human mistakes). But the analyst who constructs regulations and instructions must have knowledge enough to do so. This implies that transactions should be "simple", meaning possible for external analytical experts to understand and codify. (Mintzberg 1983, 1994). In sum, Mintzberg (1983) identifies standardisation of work processes (comparable to rules) as efficient in simple and stable situations.

Disadvantages with co-ordination by rules occur when tasks are complex and the outcome is hard to predict. Other disadvantages are that organisations run by rules tend to be obsessed with control and that individuals involved in transactions are alienated and that hostility and suspicion prevails (Mayo 1949, Mintzberg 1983). With rules a minimum level of performance can be secured but performance at higher levels demand other mechanisms.

Co-ordination by ideology (shared beliefs and values) is, therefore, an alternative to rules. Ethical codes, trust and confidence have been identified as important to facilitate market exchanges (Arrow, 1973). Macneil (1978) identifies relational contracts with shared norms and expectations as a way of achieving co-ordination in complex long term exchanges that are difficult to measure. Ouchi (1980) identifies performance ambiguity and goal incongruence as the forces behind the use of co-ordination by "traditions" rather than rules and price, which involve the development of common values and beliefs among the participants.

If the outcomes of transactions are difficult to predict and the participants involved have better knowledge than an external party, co-ordination should be based on the knowledge of the involved participants. High complexity and difficulties to foresee outcomes obstructs co-ordination by price, authority or rules. If rules are to be used in situations which are simple and stable, ideology with mutual adjustment, standardisation of skills and shared values and norms is the mechanism for situations that are complex and dynamic (Edström & Galbraith 1977, Mintzberg 1983, Bartlett & Ghoshal 1992). Ideology is also a mechanism used in situations when individual motivation and creativity is crucial.

A disadvantage with co-ordination by ideology is that individuals have to internalise certain values and views, which might be a costly process. An organisation can promote a common ideology by its recruitment policy, by internal training programs and internal communication.

ORGANISATION FORMS

The co-ordination mechanisms above give a basis for analysing institutions in the economy, including both market and hierarchical forms. Within the hierarchies of business enterprises, various organisational forms can be identified. Below organisational forms are identified and interpreted in an ideal evolutionary context. The categorisation especially synthesises the writings of Chandler (1962, 1990), Williamson (1975, 1985), Mintzberg (1983), Miles & Snow (1984).

At a fundamental level (1) we find the organisational forms for new/small enterprises that are driven by a strong entrepreneur (simple hierarchical form) or are centred around collaborations of individuals in project-based forms (adhocratic form). As enterprises grow and mature more formalised structures may be introduced (U-form). Or co-ordination can be based on the professionalism of employees (professional form). Large enterprises with differentiated businesses might be organised as divisions (M-form) or as loosely coupled holding companies (H-form). The different levels and forms are presented below.

Level 1: Simple hierarchy and Adhocratic Form

As was discussed above, the entrepreneur is a starting point for the analysis of hierarchical forms in a market economy (McNulty, 1984). The entrepreneur as a middleman reaps scale advantages in information, contract, design and control. When the entrepreneur becomes an authority, and direct and control the activities of participating producers, the Simple Hierarchy develops. The Simple Hierarchy is comparable to Mintzberg's "Simple structure" and Williamson's "Simple hierarchy". The central position of the entrepreneur and the personal relations to employees makes *authority* the most important co-ordination mechanism used in this form and a characteristic of the environment is that it is simple and possible for a single entrepreneur to grasp.

An alternative to the Simple Hierarchy is the Adhocratic form, corresponding to Mintzberg's form with the same name. In this case a group of producers collaborate around a new project. This form is suitable in an environment characterised by complexity. In this kind

of organisation authority is complemented with ideology for co-ordination, which facilitates informal co-operation.

At this first level the use of authority can be explained by the existence of transaction-specific investments and teamwork problems.

Level 2: The U-form and the Professional form

As the enterprise grows in an environment that is stable (foreseeable), new forms may develop. Also at this level two different paths can be distinguished. One, common in mass-production of physical products, is the "U-form" corresponding to Williamson's form with the same name. Other names are "the functional form" (Miles & Snow 1984), the machine bureaucracy (Mintzberg 1983) and the "managerial enterprise" (Chandler 1990). The U-form modifies the co-ordination by authority by introducing several levels of management and separates functional responsibilities among managers at the same level. The U-form is also characterised by the introduction of a new important co-ordination mechanism: *rules*. The U-form is co-ordinated by formalised procedures, by explicit, written instructions for work performance, systems for planning and control etc. This makes the U-form efficient as volumes increase in environments that can be characterised as stable and simple.

As the enterprise expands also another form may occur - the Professional form identified by Mintzberg as "The Professional Bureaucracy". Here, the organisation is co-ordinated by the authority of managers and by ideology - the views and values that employees have internalised. This form fits organisations that supply professional services in a recurrent way (hospitals, schools). The environment is characterised by stability and complexity, which makes co-ordination by authority and rules difficult.

Level 3: The H-form and the M-form

The H-form, the holding company, manages a portfolio of businesses with little overall co-ordination. The rationale for the H-form can be found in the problems that investors face in the capital market due to information asymmetries and problems to spread risks. The use of co-ordination mechanisms is undeveloped in this form. Compared to a group of autonomous enterprises, the holding company might have some co-ordination by authority and rules. (Sometimes the H-form can be a form that facilitates linkages between companies due to common ownership and special traditions, which introduce elements of ideology in co-ordination. Collin, 1993).

The M-form corresponds to Williamson's form with the same name. It resembles the organisation that is analysed by Mintzberg, Miles and Snow, Chandler and others as an divisionalised form/structure. The M-form can be explained as a development from the U-form, as the U-forms grow into differentiated businesses (new products and markets). The M-form is characterised by a division to semi-autonomous units with responsibilities for results, creating medium-sized corporations in the large enterprise. Hereby, market-oriented incentives are created throughout the organisation

Another characteristic is that the responsibilities are divided vertically in the hierarchy. Managers at the top-level are given strategic responsibilities and managers at the middle level are given the operational responsibility for their own results, top-level monitoring the middle level. Hereby, co-ordination by authority is modified. Further, new formalised methods (report-systems, policy documents etc) are introduced to facilitate the co-ordination of divisions, modifying co-ordination by formalisation. Finally, price is introduced as a co-ordination mechanism used within the firm, creating internal markets for goods and people and internal competition for resources. The reason for why the whole enterprise do not dissolve into separated firms is prevailing elements of transaction specific investments, elements of teamwork and joint production (for example in central R&D-units) and transfer of specific knowledge from the headquarter to divisions. Distinguishing characteristics in the different forms in the three different levels are summarised below.

Table 1. Organisation forms

<i>Level</i>	<i>Environment / Transaction characteristics</i>	<i>Form</i>	<i>Characteristics</i>
1 a)	Teamwork, transaction-specific investments, simple environment.	Simple hierarchy	Central entrepreneur gives directs and control producers.
1 b)	Teamwork, transaction-specific investments, complex environment.	Adhocratic form	Cooperation in group to solve new problems.
2 a)	Stable, simple environment	U-form	Separate functions in several vertical levels. Formalize work processes
2 b)	Stable, complex environment	Professional	Standardized problem solving. Educated individuals with high autonomy.
3 a)	Differentiated products/ markets	M-form	Vertical separation of strategic and operative responsibility. Decentralization to divisions with responsibility for results.
3 b)	Asymmetrical information in capital market.	H-form	Create diffusion of risk, portfolio management.

The analysis synthesises and develops contributions from Mintzberg, Williamson and others. Compared to Mintzberg, it makes a clear distinction of levels, which makes the relation between different forms more explicit, and the H-form is added to the list of

organisations. Compared to Williamson the approach adds the professional organisation and the adhocratic form.

The stepwise institutional development of forms, from the simple hierarchy to the U-form and, finally, the M-form, can also be described, and explained by co-ordination theory, by identifying the use of dominant co-ordination mechanisms at different levels and how they are modified and extended as the development proceeds. One typical line of development in enterprises that has grown to large MNEs can be described as follows.

Table 2. Organisation forms and co-ordination mechanisms

<i>Organization form</i>	<i>Co-ordination mechanism</i>			
	<i>Authority</i>	<i>Rules</i>	<i>Price</i>	<i>Ideology</i>
Simple hierarchy	Extended vs. market relations. Entrepreneur supervises producers.			
U-form	Modified vs. Simple hierarchy. Several levels of authority, responsible for functions.	Extended vs. Simple hierarchy. Formal instructions and planning systems integrates functions.		
M-form	Modified vs. U-form. Top-level are given strategic responsibility, middle level are given operative responsibility for the results of divisions.	Modified vs. the U-form. Formal systems for planning, control and knowledge transfers between head quarters and divisions.	Extended vs. the U-form. Middle level with semi-autonomous units. Internal markets and internal competition.	

A NEW ORGANISATIONAL FORM

During the last decades organisational changes in large multinational enterprises (MNEs) have received much interest from researchers. International strategies and organisational designs seem to be in a period of high transition and the new dominant designs have not yet become fully established (Egelhoff 1998). Many researchers claim that a new form is evolving, but there is no clear picture of what this new form looks like or how it fits in the general development of organisation forms. The variety of contributions can be illustrated by the different names that are used to describe the new form, for example: "Geocentric" (Perlmutter 1969), "Dynamic network" (Miles & Snow 1984), "Heterachy" (Hedlund 1986), "Transnational " (Bartlett 1986), "Integrated network" (Bartlett 1986, Bartlett & Ghoshal 1992), "Horisontal " (White & Poynter 1990), "Multi-center" (Forsgren 1990), "Integrated players" (Gupta & Govindrarajan 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).

Several of these contributions use the ideal evolutionary approach to analyse the new form. Permuter (1969), who early identified the geocentric firm as the latest step in a development from ethnocentric and polycentric firms, illustrates this. Miles and Snow (1984) present an other very elaborated overview of the development of organisation forms and adds the new form to the list. They identify the "agency", "functional", "divisional", "matrix" and finally the "dynamic network" structure. Hedlund (1986,1994) adopts the approach when he compares the new heterarchy with the old hierarchy and analyses the new form as a N-form following on the M-form. Bartlett (1986) and Bartlett & Ghoshal (1992) identify a transnational strategy and an integrated network as the latest step in a development that was preceded by the multidomestic strategy, the international strategy and the global strategy. Bartlett & Ghoshal (1993) and Ghoshal & Bartlett (1997) also analyse the new organisation in special comparison to the earlier M-form.

What is then the new form characterised by? Different authors observe different features and focus on different aspects. Perlmutter (1969) observed that new roles were given to headquarters and subsidiaries. Each unit should be part of a whole and focus on both global and local objectives. Edström & Galbraith (1977) observed the increased complexity in large enterprises and suggested increased personal cross-unit transfers and socialisation as a complement to centralisation and bureaucratisation. Miles & Snow (1984) characterise the new form as broker-assembled temporary structures with shared information systems as basis for trust and co-ordination. Hedlund (1986,1993,1994) focused on new horizontal cross-unit and cross-functional combinations. The middle level management was regarded critical and temporary structures and horizontal communication were suggested. Martinez and Jarillo (1989) summarised empirical research and found that subsidiaries were given more important roles, including development responsibilities. Temporary teams, task foces and integrators, as well as more extensive use of informal communication and organisation culture, were identified as new mechanisms. Bartlett & Ghoshal (1992) adhered to earlier contributions but emphasised front-line entrepreneurs. They suggested a radical decentralisation to front-line units and new management roles. Later contributors in the same field are Buckley & Casson (1998) who observes increased uncertainty and volatility as the driving frces behind the

development of new forms. The need for flexibility gives more decentralised and federative structures.

The new organisational features are summarised as below. (The table was presented in an earlier paper, which also gave a more extensive literature review, see Pihl 2002).

Table 3. 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.

(From Pihl, 2002 p 10)

When synthesising different contributions an elaborate picture of a new form evolves. To integrate this new picture into an idealised evolutionary approach, a comparison with earlier forms has to be made. The new form can be named W-form (Web-form) and defined as: *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.* (Pihl 2002, p 14).

The new form is characterized by the flexible use of projects that run parallel to more permanent structures. The new form is compared to the M-form in the following way.

Table 4. Characteristics of the M-form and W-form

<i>Situation:</i>	DIVERGING PRODUCTS IN INTERNATIONAL DISPERSED MARKETS Simple technology in a stable environment.	ADJACENT PRODUCTS WITHIN CORE-BUSINESS IN INTERNATIONAL DIS PERSED MARKETS . COMPLEX TECHNOLOGIES IN DYNAMIC ENVIRONMENTS •
<i>Organisational features:</i>	<ul style="list-style-type: none"> • Decentralise profit responsibilities from top- to middle level (divisions). • Separate strategic and operational level. • Development issues and strategic initiatives at the top- and middle levels. • Middle level co-ordinate one-dimensionally, i.e. with a focus on geographical markets for local adaptation <u>or</u> products for global integration. • Units at front-level acts within the boundaries of divisions • Front-line units group their activities by function in permanent structures. • Emphasis on vertical communication, "top-down". 	<ul style="list-style-type: none"> • Decentralise profit responsibilities from middle- to front level units. • Integrate strategic and operational responsibilities. • Units at front-level are given development responsibilities and can take strategic initiatives. • 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). • Units at the front-level acts in a flexible way over the boundaries of divisions, following customer demand. • 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. • Vertical and horizontal communication, "top-down", "bottom-up" and in horizontal directions

(Pihl, 2002 p 16)

THE NEW FORM AND THE IDEAL EVOLUTIONARY APPROACH

The new W-form can, as other forms, be interpreted as part of a more extensive ideal evolution of organisation forms and as a new level in the institutional development. Why have the new form developed? One explanation is that the development is due to a new situation in the business environment which pushes for development and makes development possible. New environmental conditions that lie behind this development are: new information and communication technologies, the liberalisation and globalisation of markets, the integration of different products in "system packages", increased uncertainty in certain industries and increased volatility. The extended model of organisational development is presented below.

Table 5. Organisation forms

<i>Level</i>	<i>Environment / Transaction characteristics</i>	<i>Form</i>	<i>Characteristics</i>
1 a)	Teamwork, transaction-specific investments, simple environment.	Simple hierarchy	Central entrepreneur gives directs and control producers.
1 b)	Teamwork, transaction-specific investments, complex, dynamic environment.	Adhocratic form	Cooperation in group to solve new problems.
2 a)	Stable, simple environment	U-form	Separate functions in several vertical levels. Formalize work processes
2 b)	Stable, complex environment	Professional	Standardized problem solving. Educated individuals with high autonomy.
3 a)	Differentiated products/ markets (stable, simple environment)	M-form	Vertical separation of strategic and operative responsibility. Decentralization to divisions with responsibility for results.
3 b)	Asymmetric information problem in capital market.	H-form	Create diffusion of risk, portfolio management.
4)	Adjacent technologies and a complex, dynamic environment	W-form	Decentralize to front units with global specialized roles. Projects over borders of units.

How will this affect the use of co-ordination mechanisms, and how can the changes be theoretically explained? In this development there can be identified a new mechanisms for co-ordination, as well as modifying the existing ones. For, example, the increased need for flexibility and market-pulled development gives rise to increased decentralisation with front-line units performing the middleman/entrepreneurial function. Adjacent technologies and new combination possibilities between front line units, which follow on the increased specialisation and decentralisation, give rise to new tasks for managers at middle and top levels. Development in information technologies makes it possible to develop new formal systems, to communicate over borders of units.

In an ideal evolutionary approach, the development can be summarised as follows: New forms will be linked to new elements in the co-ordination of firms, new mechanisms can be introduced and old mechanisms modified. The Simple hierarchy of a small enterprise solved the problem mainly by authority. Co-ordination was created by the means of the manager (owner/entrepreneur). The U-form handled the increased need for co-ordination in large firms by modifying authority and by introducing rules. Several levels of management were implemented and manager's responsibilities were limited to certain functions. New formal systems reduced the need for manager supervision by formal work instructions and planning and control systems. The M-form modified the co-ordination by authority and rules and introduced price as a third mechanism. Management roles were separated between strategic and operational tasks and division managers were given full responsibility for results. New

formal systems were introduced to facilitate control headquarters. Finally, decentralisation to divisions created internal markets for resources, people and funds.

The W-form, finally, modifies co-ordination by authority, rules, price and extends co-ordination by ideology. Compared to the M-form the W-form decentralises responsibilities one step further, from middle to front-line units. Managers are hereby given new roles which modifies co-ordination by authority. Frontline managers are entrepreneurial and meet the customers demand organised in operating units and temporary projects. Middle and top-level managers support in different ways. Middle managers support initiatives, mediate between front-line units, integrate new projects in the larger context etc. Middle managers are also globally responsible for certain technologies/products or customers. Top-managers are responsible for total results and are supplying the organisation with overall visions and values. Top-managers are also responsible for the overall organisational infrastructures, communication systems etc. Finally, top- and middle management perform selective centralisation and get involved in decision-making when front-line units act dysfunctional.

Co-ordination by rules is modified by the development of new corporate-wide systems for communication and planning and control. New technology makes it possible to increase spread and speed in reporting, and to measure several dimensions of the business.

Co-ordination by price is modified by the radical decentralisation to front-line units and the increased use of internal markets, internal competition and other horizontal relations. Goods are allocated by the means of market relations. New markets are created for initiatives (new products and methods) and internal benchmarking creates increased internal competition.

Finally, ideology is emphasised for making this new organisation work. The new form is increasing decentralisation and the use of horizontal, informal communication and collaborations. How can this be co-ordinated in a complex and dynamic environment? Many authors identify shared values and beliefs as the solution - shared views and beliefs guide decentralised actors to act in a acceptable way (action is not guided by another person's order, by a printed prescription or by some sort of payment or penalty). Further, shared beliefs and values facilitate communication and collaboration in various combinations.

The development is summarised below.

Table 6. Organisation forms and co-ordination mechanisms

<i>Organization form</i>	<i>Co-ordination mechanism</i>			
	<i>Authority</i>	<i>Rules</i>	<i>Price</i>	<i>Ideology</i>
Simple hierarchy	Extended vs. market relations. Entrepreneur supervises producers.			
U-form	Modified vs. Simple hierarchy. Several levels of authority, responsible for functions.	Extended vs. Simple hierarchy. Formal instructions and planning systems integrates functions.		
M-form	Modified vs. U-form. Top-level are given strategic responsibility, middle level are given operative responsibility for the results of divisions.	Modified vs. the U-form. Formal systems for planning, control and knowledge transfers between head quarters and divisions.	Extended vs. the U-form. Middle level with semi-autonomous units. Internal markets and internal competition.	
W-form	Modified vs. M-form. Front-level with entrepreneurial responsibility. Middle-level supports and guides frontline. Top-level provide visions and values.	Modified vs. M-form. New corporate-wide systems for communication, planning and control. New dimensions are reported and measured.	Modified vs. M-form. Decentralization to front-units increases internal markets. Markets for projects. Internal competition increases.	Extended vs. M-form. Common values and beliefs guide actions and facilitate co-operations

CONCLUSION

Several researchers analyse organisational forms as an idealised historical evolution where new organisational forms build on earlier established forms. Different contributions observe different forms and present different theoretical explanations. Important contributors have been presented by Chandler (1962, 1990), Mintzberg (1983), Miles & Snow (1984) and Williamson (1975, 1985). This paper develops a theoretical framework that builds on these contributions.

The result can be presented in comparison to the writings of Williamson (1975, 1985). This paper tries to make a more clear distinction between co-ordination mechanisms and organisation forms than what is the case in the writings of Williamson. Further the paper analyses a wider set of co-ordination mechanisms, identifying four rather than two main mechanisms. The paper also extends the identification of different organisational forms made by Williamson. The set of forms analysed by Williamson are integrated with forms that have been identified by other writers. Finally, whereas Williamson focused his analysis on the

development of a new M-form following the U-form, this paper focuses upon the organisational development beyond the M-form. A new organisational form, for large multinational enterprises, is hereby identified. Like the M-form, the new form is characterised by diversified markets and products. But it differs by its adjacent complex technologies in dynamic environments which require modifications and extensions in the use of coordination mechanisms. The new form is labelled “W-form”. It decentralise 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. An important new feature of the W-form is the intense use of projects that run parallel to more permanent structures and that cross units and borders.

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.
- Arrow, K. J. (1973) "Information and Economic Behavior", *Federation of Swedish Industries*, 30 May, 5-28.
- Barney, J. (1991) "Firm Resources and Sustained Competitive Advantage" *Journal of Management*, Vol 17, No 1, 99-120.
- 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
- 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
- Burns, T., Stalker G. M. (1961) "The Management of Innovation". Tavistock Publications.
- Chandler, A. D. (1962) "Strategy and Structure: Chapters in the History of the American Industrial Enterprise" MIT 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
- Child, J. (1973) "Strategies of Control and Organizational Behavior" *Administrative Science Quarterly*. 18, 1-17.
- Collin, S-O. (1993) "The Brotherhood of the Swedish Sphere: A Third Institutional Form for Economic Exchange". *International Studies of Management & Organization*, vol 23, no 1, 69-86.
- 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.
- 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).
- Fama, E. F. (1980) "Agency Problems and the theory of the Firm". *Journal of Political Economy* vol 88, 288-307.
- Fama, E. F., Jensen, M. C. (1983) "Agency Problems and Residual Claims" *Journal of Law and Economics*, vol XXVI (June p 327- 349)
- Forsgren, M. (1990) "Managing the International Multi-Centre Firm: Case Studies from Sweden", *European Management Journal*, Vol. 8, No. 2, June, pp 261-267
- 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.
- Humes, S. (1993) "Managing the Multinational. Confronting the Global - Local dilemma" Prentice hall.
- 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.
- Macneil, I. (1978) "Contracts: Adjustments of Long-term Economic Relations under Classical, Neo-classical and Relational Contract Law". *Northwestern Law Review*. 78, 854-906.
- 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.
- March J.G., Simon H. A., (1958:1993)"*Organizations*", Blackwell.
- 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.
- Mayo, E. (1949) "Hawthorne and the Western Electric Company" i Pugh, D. S. "Organization Theory, Fourth Edition, Selected Readings". Penguin Books, 355-368.
- 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.
- 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.
- North, D. C. (1990) "Institutions, Institutional Change and Economic Performance" Cambridge UP.
- North, D. C. (1992) "Institutions, Ideology and Economic Performance". *CATO Journal*, Winter, Vol. 11, Issue 3, 477-489.
- Ouchi, W. (1980) "Markets, Bureaucracies, and Clans" *Administrative Science Quarterly*. 1980:25, s 120-142.
- Penrose, E. T. (1959:1980) "The Theory of The Growth of the Firm" Oxford. Basil Blackwell.
- Perlmutter, H. V. (1969) "The Tortuous Evolution of the Multinational Corporation" *Columbia Journal of World Business*. January-February.

- Pihl, H. (2000) "Price, Authority, Ideology and Rules - Co-ordination Mechanisms and Co-ordination Forms." *Paper presented at the Annual Conference of the International Society for New Institutional Economics, (ISNIE). Tübingen., Sept 22-24.*
- Pihl H. (2002) 2002 "A New Organisational Form in Multinational Enterprises - From M-form to W-form." *Paper presented at the 28th European International Business Academy Conference (EIBA), Athens.*
- Polyani, M. (1958:1973) "*Personal Knowledge. Towards a Post-Critical Philosophy*"
Routledge & Kegan. London
- Powell, W. W. (1991) "Neither market nor hierarchy: network forms of organization" i
Thompson, G., Frances, J., Levacic, R., Mitchell, J. (eds) "*Markets, Hierarchies & Networks*". Sage Publications.
- Ridderstråle, J. (1992) "Developing product development. Holographic 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.
- Scotter, A. (2001) "*Microeconomics A Modern Approach*". Addison Wesley Longman.
- Teece, D.J. (1982) "Toward an Economic Theory of the Multiproduct Firm" *Journal of Economic Behavior and Organization* 3, 39-63.
- 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.
- 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. (1991) "Economic Institutions: Spontaneous and Intentional Governance" *Journal of Law, Economics & Organization*. Oxford University Press.