

**Title: Temporal orientation and temporal profiles of network adjustments in times of economic recession**

**Abstract:**

Business cycles is not a new phenomenon. Firms have found ways to, more or less successfully, adjust their internal and externally supplied resources to changes in the level of economic activities. Such adjustments are part of market practices and affect individual actors and business networks. However, the present combination of a global crisis in financial markets and a severe down turn in demand on globally interdependent markets in the “real economy is unprecedented. In this paper we focus on temporal aspects of resource adjustment to economic recession in business networks. Our purpose is to discuss temporality of strategic actions in networks including the influence on this by financial and political actors. The contributions are theoretical/conceptual and represent an effort to explicitly consider the social construction aspects. The paper contributes to on-going discussions within IMP on how managerial action relates to ”network pictures/network theories” and to the dynamics of the shaping of markets. The main theoretical ideas, also with implications for further research are illustrated by some concluding propositions.

**Key words:** temporality, economic recession, network adjustments

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**Introduction**

Economic activities that create, use, coordinate and destroy resources take place over time. In a network perspective the activities of one actor are directly and indirectly coordinated through explicit and/or implicit

interaction with other actors. Interaction in dynamic business networks is an important form for governance in market economies. Such networks are dynamic, driven by endogeneous and exogeneous forces for stability as well as change. And all strategic actions have temporality. An example of this is that during specific time periods a market experiences a “wave” of mergers and acquisitions, in which actors tend to create certain, common “views” of temporality profiles in the ongoing changes (speed, duration, sequential structure etc.) Other examples are the diffusion of logistics practices emphasising shorter lead times and the focus on shortening the “time to market” for new products. A general controversy that has been debated during the last decades is between proponents of a long term “industrial” view on market strategy (emphasising also the investment nature of marketing) and proponents of the need to act in the short run to be able to present positive 3-monthly economic reports for the stock market.

In this paper we are concerned with the temporal aspects of adjustment of resources to general fluctuations in economic activities. Adjustments of internal and external resource utilisation and development are part of market practices involving coordination in network contexts. Such coordination is dependent on:

- *temporal orientation*, and
- *temporal profiles*

Economic actors prepare and perform activities based on their temporal orientation, e.g. vantage point, viewing direction and length of time (Sztompka, 1993). The activities as such have temporal profiles in terms of e.g. timing, speed, duration and sequencing (Andersson and Mattsson, 2005; Andersson and Mattsson, 2007). The temporal aspects of actor behaviour (orientation and profiles) are socially constructed (and reconstructed). Fluctuations in economic activities, whether they come as recurrent business cycles or rapid downturns, will be associated with shifts in both the temporal profiles and the social construction of time.

As for business cycles, they are hardly a new phenomenon. Downturns and upturns have come and gone as long as economic history research knows. However, the present combination of “financial crisis” and economic downturn at a global scale in a globally strongly interdependent economy is unprecedented. As firms in the recession beginning in 2008 adjust to the downturn, they do that in circumstances that are different from those during earlier downturns. First, the reorganisation of firms and markets during the last decades in terms of e.g. globalisation, sourcing strategies and strategic partnering have mainly occurred during growth periods and served to increase interdependencies between actors and their resources, also those that are spatially widely dispersed and belonging to different industries. Second, the present downturn is more closely related than before to a severe breakdown of normal operations in the global financial system. Therefore market practices, and government policies that were effective during earlier downturns might be less valid in the present situation. At least it is an assumption whose consequences are important to discuss. We aim in this paper to contribute to this by analyzing the temporality aspects of network activities to adjust resources.

An introductory, practical empirical case of temporality to illustrate that temporality is in fact a central issue in many companies’ activities can be done with the help of information from the Finnish company Wärtsilä. It is a globally active Finnish engineering firm, supplier to power generating and shipping industries, reports in the beginning of 2009 on some temporal aspects of the economic downturn of relevance for our arguments:

”The ship power market demand *abruptly* stopped during the last quarter due to the financial crisis. Even if declining demand had been visible a long time the market was *surprised by the speed of decline*.”

”*Difficult to foresee* how serious and long the general downturn will be but effects for Wärtsilä will be limited because even if cancellations will occur there is a *substantial order stock*. for power plant equipment and services.”

”Changes in the scheduling of shipyard activities affect the *scheduling in the entire supply chain*.”

”Demand for services continue to be positive. Wärtsilä offers products and service for the *entire life cycle* of the installed equipment by a globally dispersed service organization. Customers need to upgrade the economic and environmental effectiveness of technologically more advanced plants and fulfil the stronger environmental requirements.”

”Big order stock in the beginning of the downturn, flexible manufacturing process, stability of the demand for services and the global network connections give Wärtsilä *time to react* to market fluctuations.”

”The fundamental aspects of the power plant industry are unchanged but the *financial crisis will likely influence the timing* of the orders.”

”*State financed* power generating projects increase as part of economic stimulus packages but primarily for infra structural projects and not for industrial self generating projects.”

”Difficult to judge *when the upturn will come, and how quickly* the balance between the marin capacity supply and demand will be achieved, as a result of increased demand and scrapping of old ships.”

The above aspects of adjustment during economic recession show a complicated and diverse process with reference to access to and interpretation of information, interaction within and between firms, type of exchange relationships between suppliers and customers, interdependencies in extended supply networks, financial restrictions and government sponsored projects. Temporal aspects, especially temporal profiles but hardly at all temporal orientation, of resource adjustments are explicit in some of the reasoning referred to above. However, the coordination of resource adjustments *between* actors is only discussed implicitly or not at all. Either the adjustment is a matter of autonomous actions by an actor or the focus is on adaptation to an external general decline in demand.

#### *Economic recession and ideas from the marketing literature*

Improving the efficiency in marketing and sales organizations, and finding new innovative ways of organizing marketing resources, both internally and externally in new (lower-cost selling) marketing channels, are sometimes forwarded in the marketing literature as necessary courses of action when a company’s business operations are in decline (e.g. Zoltners et al 2006). For example, rapid sales force reduction is suggested as a viable course of action when a company’s business market is in steep decline. It is argued that companies should adapt their sales and marketing activities to successive changes in their business context, rather than keeping to a conservative path of change, adjusting late and then often in a more radical fashion to such changes.

Rather than stressing reducing resources a Harvard marketing professor, John Quelch (2008) argues, for a more active approach: “Marketing your way through a recession”. In times of recession firms should focus even more on customer research, maintain marketing spending, adjust product portfolios (including unbundling of products and services), support good distributors and drop weak ones, upgrade the sales force by recruiting good people sacked by other companies, adjust pricing tactics (including extending credit to longstanding customers), stress market share (including acquiring weak competitors), defend the firm’s core long term marketing values against short term financial management’s cost and balance sheet considerations. This advice was written before the financial crisis hit.

### **Purpose and Disposition**

Our purpose is thus to discuss how temporality of strategic actions affects adjustment of resources in times of economic recession. In that context we will also discuss how market attributes are affected, given that market dynamics is to an important extent endogeneously driven by network processes. The contributions are theoretical/conceptual and represent an effort to explicitly consider the social construction aspects. The paper aims to contribute to on-going discussions within IMP on how managerial action relates to ”network pictures/network theories” and the dynamics of the shaping of markets. The main theoretical findings will be summed up in a set of concluding propositions.

The disposition of the paper is as follows. First we present some types of resource adjustment, followed by a description of some typical adjustment strategies. Then we present an analytical model linking contexts (financial, political, business networks) to construction of temporality and strategic action. This model is applied to some typical adjustment strategies. We end the paper with a set of proposals for further research.

### **Resource Adjustments in Economic Recession**

#### *Temporal uncertainties*

There is uncertainty about the temporal profiles of business cycles and therefore also of the temporal profiles of the adjustments. When does the downturn begin? When does the upturn begin? What is the timing and the duration of the different phases in the cycle? What is the sequence of cyclical changes across space? E.g. what countries, what industries, what type of firms are leaders and which are followers? Pre-visionary answers to such questions are provided by a large number of institutions and interpreted by actors dependent on their own experiences and network knowledge. The uncertainty about business cycles also concerns how they are related to structural changes in the economy. A downturn might initiate or speed up important restructuring of industries, as during the industrial crisis in Sweden in the 1970s. Business cycles affect stability and change in business networks.

#### *Different time horizons*

In the context business cycle adjustments one actor may have a time horizon covering only the upturn or only the downturn while another actor may cover the entire cycle and even longer periods. While an actor only adjusting to the downturn might be more apt to press its suppliers to lower its prices or switch to suppliers able to sell at the lowest price in order to increase short term productivity, an actor covering the entire cycle might focus on how action in the downturn affects the conditions for supplier relations in the upturn, with reference to innovations involving suppliers and preservation of effective supplier networks. The timing of investments during a business cycle, including also the duration of the investment project will influence when the new capacity offered on a market. Thus investments during a downturn might result in resources used in the following upturn.

#### *Frequent types of adjustments*

The most frequent adjustment is to diminish the use of resources (internal and/or external). That can be achieved by various strategic actions, e.g. diminishing capacity utilisation, re-negotiation of prices and order volumes, switching suppliers, withdrawing from markets, selling off or closing down capacities, delaying or abolishing investment projects. But adjustments might also involve increasing resources to take advantage of different types of opportunities, e.g. acquiring resources when the price is low, developing new products in anticipation of a coming upturn. The temporal profiles of such actions (see below) is dependent on how the temporal profile of the business cycle is perceived by actors. Also the temporal profile of actions influence how the business cycle develops over time.

### **Temporal Orientation and Three Types of Common Resource Adjustment Strategies**

To discuss how temporality of strategic actions affects adjustment of temporal orientations in times of economic recession we can collect a multitude of empirical anecdotes from the business press. There is a multitude of reports on how companies seem to react and are affected by political and financial decisions and actions, and to other changes in network contexts, all being a response to downturns in the financial sector and in the economy. The following illustrate four common pictures often provided in early 2009 of strategic responses connected to shifts in temporal orientations:

*Towards extreme short-term orientation:* Several accounts tell seem to tell about a shift towards an extreme short-term orientation, with a vantage point in the present, a viewing direction towards the very near future, with a very short forward looking time span. Managing very urgent financial problems within the next few months dominates the strategic actions, often coupled with a likewise very focused (and delimited) network horizon and network orientation, e.g. rapid cost cutting in (specific parts of) supplier networks.

*Time for reconsideration and the questioning of (historical) traditions:* Some accounts seem to indicate effects from the economic recession and changes in the network on companies' view of their historical traditions. The vantage point is the past and the origins of the present, dominating business traditions, but with a viewing direction towards the future. After the first few months of attention to the urgent (financial) matters of the present or near future, some companies seem to start questioning some of their business traditions, moving into a phase of self-critical, self-reflective "historical foresight" behaviour. Should we continue on this historical path of car production? What is our historical tradition in this field, and is this the field we want to be in also within the next few years? The shift in temporal orientation might also be coupled with a shift in network orientation: if we shall shift our strategic orientation within the next coming years, do we have the right partners for this or do we have to look for other, new partners (customers, suppliers etc.) in other parts of the market?

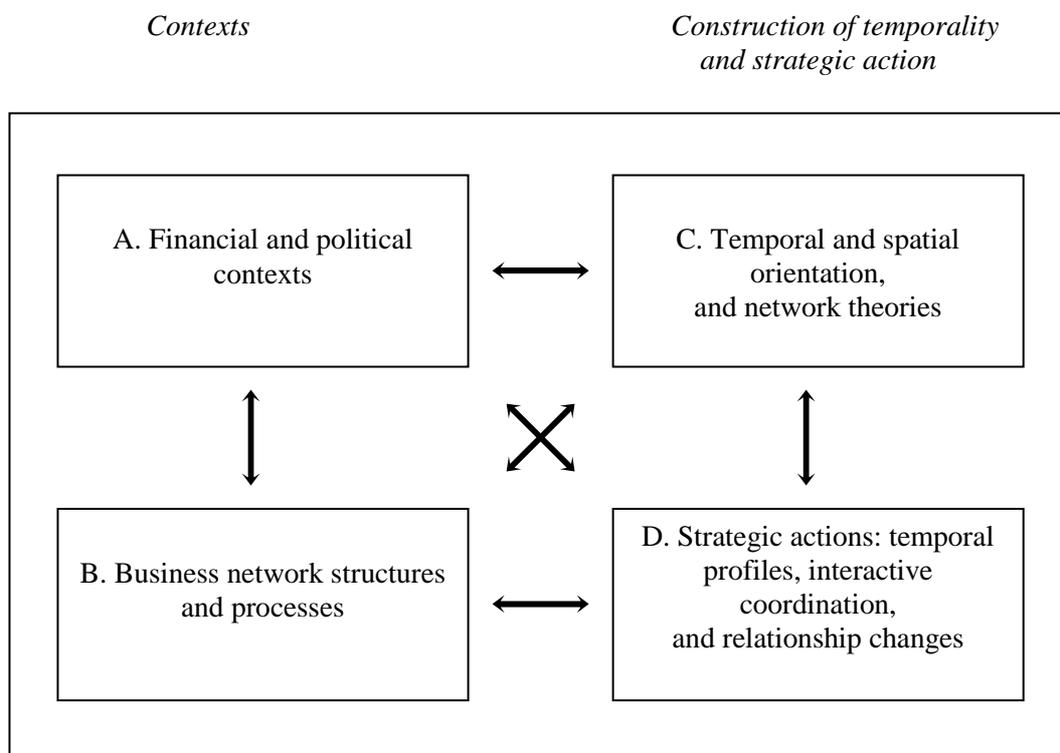
*Radical break with history:* Another reaction sometime observed is the suggestion that companies in response to rapid and deep economic recessions should take a more extreme orientation towards the future, breaking with most of its historical traditions. (For example, a car manufacturer should according to this logic break with its history in car manufacturing and orient itself towards new, “promising”, business fields and networks involved in e.g. wind energy.) Such responses to economic recession includes often ideas on a need for radical breaks with both the present time orientations and the present network orientation.

*Stuck in history:* Another reaction might of course be to defend the historical past in response to hard times and economic recessions. The questioning of the company’s past behaviour might lead to an even stronger defence of the past, including network orientations.

Next, we present an analytical model linking contexts (financial, political, business networks) to construction of temporality and strategic action. We end the paper with a set of proposals for further research.

### Analytical Model

The logic of our discussion is as follows. We distinguish in our analytical model between four sets of variables. Two are related to contexts: A: “financial/political” and B: “business network structures and processes”. Two are related to temporality: C: “temporal and spatial orientation” and D: “strategic action”. Adjustment of resources (D) takes place in dynamic business networks (B) that are both influencing and influenced by the adjustments. How the individual actor is related to others influences the type of adjustment, its effects on the network and how resource adjustments are coordinated with other actors’ adjustments. Thus network interactions affect coordination of resource adjustments. Given the important links between the business network behaviour and the financial crisis and governmental policies to handle this crisis and the downturn in the real economy we recognize business networks as embedded in the financial and political world (A). Furthermore, we assume that actors’ construction of temporal orientation (C) will have effects on the temporal profiles of actions to adjust resources (D). In the set of (C) variables we also include the spatial aspects “network orientation” and the actors’ “network theories” as related to the construction of the temporal orientation and affecting the strategic resource adjustments. The actions (D) are not only described in terms of temporal profiles but also as regards the type of resource adjustment and the interactive nature of the adjustments. The adjustments (D) will affect network structures and processes (B), which in turn will feed back on future (C) and (D) variables. The complex analytical model is summed up in figure 1. We do, of course, not intend here (or anywhere else for that matter) to make any systematic analysis of all interactions between and within the boxes. But we will use the model to formulate a few propositions that we believe illustrate important aspects of the problematic adjustment to the economic recession.



*Figure 1. The analytical model*

To illustrate the model, we discuss the four variables and some of the causalities and interdependencies between them:

*Temporal orientation (C)*

This basically concerns the social construction and actors' perception of time. Actors have different ways of perceiving time. Reflected in actors' behaviour, they act with different *time horizons* and take different *time perspectives* when changing their network positions and acting in an interplay with the moving context. The dynamics of strategic actions, including the agency-network structure interplay evolve with actors with different time perspectives. Change agents of strategic actions take different time perspectives that need to be adjusted to each other to achieve resource coordination in business networks.

We assume that the choice or adaptation of time perspective effects what is acted on, the contents, how it is done, when it is done, the process and in what context it is done. Actors time perspective - *the vantage point* (in the past, in the present or in the future) *and the viewing direction* (towards the past, the present or the future, also *how far* in the past or in the future the perspective reaches) are assumed to be affected by changes in the network (Sztompka, 1993) Perception of such changes in the network is dependent on the actors' *network orientation* (network horizon, differentiation between types of actors) and the actors' *network theories*, i.e. their systematic beliefs about network dependencies and effects endogenous and exogenous forces (Johanson and Mattsson, 1992) and their *network pictures* (Henneberg et al. 2006).

A rapid downturn in the economy and the emergence of a deep recession can be assumed to create changes in the time perspective of actors. For example, the threat of lost sales and customer orders might draw attention to the near future, decreasing importance of a long-term market planning perspective, delaying investments in new markets and change to more short term perspective on relations to suppliers.

*Strategic actions (D)*

Strategic actions are efforts by network actors to influence how they are connected to other actors and the content of the exchange relationships. They include establishing, developing, maintaining and breaking relationships to customers, suppliers and others. They can be planned and implemented autonomously or in interaction with others. The actions have temporal profiles, such as *timing*, *duration*, *speed* and *sequencing*. The strategic actions become connected to the actors' temporal and network orientation, hence affecting their readiness to act on various changes in the context, and also their own readiness to change. The dynamics of strategic market actions, include the interplay with actors with different time horizons and time perspectives. From the embeddedness follows that the time perspective partly is determined by changes in the network context.

This also encompasses the opportunities to coordinate time perspectives in networks between actors engaged in different actions, e.g. as a response to a growing recession. Tensions and contradictions between different ongoing actions can be dealt with by coordinating and adapting different time perspectives. The temporal dependencies between connected actors' activities, including how they construct time, might have to be altered. The coordination of temporal profiles across strategic actions can be the seed for introducing new stable temporal dependencies and perceptions between actors in the network. It can be expected that in the short time perspective, the coordination of temporal orientations can increase the opportunities to create continuity in, and stabilise, the ongoing processes of strategic change.

However, the development may also bring discontinuities and confusion in the networks. Actors may take very different time perspectives on a recession, influencing actions and coordination in a disruptive way. Actor 1 might be occupied by "the present", limiting the time perspective to a number of "critical actions" in the present, like short time cost cutting, disrupting and destroying resources developed jointly with other actors. Actor 2, related to the first one, might be less affected by the downturn, also acting with a vantage point in the present but with a viewing direction more towards the future (foresight), developing resources for the coming upturn, but also recognising the value of the long term interaction in the past with Actor 1. One way to handle the tension between actors 1 and 2 might be to change, and coordinate the temporal profiles of the actions to avoid for both actors ineffective resource adjustments in the network (B)

Hence, shifts in the construction of temporality can be assumed to have effects on the strategic actions of actors. Firstly, we can expect adaptation of the temporal profile of strategic actions, in terms of sequential

structure of actions, duration, timing, and speed. In addition, the shifts in temporal orientations might affect the spatial dimensions of the strategic actions. In other words, what other counterparts in the network that the strategic actions are directed towards might change. For example, a more narrow orientation towards the near "present" due to a rapid recession might be coupled with a more one-directed focus towards the suppliers or towards the customers. Hence, the resulting strategic actions will be coupled to a shift in network orientation and network horizon. Thirdly, the shift in time perspective of actors might also change the actual content and focus of the strategic actions, including planning, what disinvestments or investments that are made and the handling of existing relations in the network. Lastly, based on the actors' interaction, the shift in time perspective might also have effects on the characteristics of the strategic actions, shifting towards a more proactive, re-active, or perhaps in-active behaviour.

#### *Influence of the financial crisis and government policies(A) on temporality (C and D)*

The financial crisis has decreased the supply of financial resources both for daily operations (liquidity) and investments in the financial system. This, and the downturn in demand, increases the pressure for short term cost cutting, indeed threatening the survival of some firms, affecting also other firms in the network. It is likely that the financial functions in the firm will become more powerful compared to the procurement and marketing functions dealing with relations to suppliers and customers. Long term procurement and customer strategies need to be adapted to short term cost cutting. Network theories among managers handling the "real economy" are likely different from managers handling the financial economy and the short term stock market influenced focus on quarterly economic performance measures. The construction of temporality, influenced by the financial crisis will thus likely turn out to result in shorter time spans and closer network horizons.

Government efforts to stimulate the economy in a recession includes national, often infra structural, projects, such as communication networks and stimulation of demand for specific products and services increasing societal welfare, such as a better environment. Furthermore, there is a bias in government support for projects that use national resources. Governments need to stimulate demand in the short run to increase the use of resources. Some of these resources have been, or risk to become, redundant in the short run and therefore the timing and speed of the government stimulated activities must be early and rapid and based on existing network resources and plans. There might be a lack of such specialized resources in the short run and problems to substitute foreign resources with domestic ones if that is required. When the government stimulates long term projects of an R & D nature the temporal orientation of the network actors are influenced towards a long term future period, partly with a vantage point also in the future.

### **Some Propositions Suggestive for Future Research**

Relating to the variables of the model presented in figure 1, we can formulate a set of propositions for future research on temporal orientation and temporal profiles of network adjustments in times of economic recession. The propositions follow different causalities in the model and are selected because we believe that they highlight some important adjustment problems during the present economic recession that are worthy of future research.

*Proposition 1.* In times of economic recession changes initiated by financial and political actors will lead to increased *ambiguities* (March 1988) in temporal orientations among business actors, which will lead to varied responses by the business actors resulting in uncoordinated temporal profiles between the actors and unwanted changes in the network structure. (A->C->D->B)

*Comment:* Diverse signals from financial actors (e.g. rapid withdrawal of financial support to business customers) and political actors in response to signals of a recession can result in equally diverse temporal interpretations by business actors (Are we to react immediately and urgently? Are we to respond more long-term to the signals? If we need to postpone an investment project, how are we going to preserve the access to own and other actors' resources for the planned project?) These shifts in temporal orientation will in turn lead to equally varied responses and adaptations of temporal profiles of activities and routines in the network, maybe break-up of stable, temporal coordination routines between interdependent actors in the network.

*Proposition 2:* In times of economic recession political actors, especially in large economies, try to stimulate use of local, rather than global resources. Long term oriented development of global business networks are then partly substituted by a short term pressure on business actors to develop local business networks. (A->B->C->D)

*Comment:* The long term development of global business networks, i.e. globalisation of markets in the "real economy" is discouraged which will affect network horizons as well as interactive coordination for resource adjustments both as regards routines and innovations

*Proposition 3:* Projects initiated by political actors for short term effects on resource use, in times of economic recession, will change business actors' temporal orientation for such projects from the future to the present. Temporal profiles as well as interactive coordination in the network will be affected as well as the network structure. (A->C->D->B)

*Comment:* If the project is initiated by political actors in a crisis situation, it is likely not a priori fully planned by business actors, but need to be so in a short time. Temporal orientation and temporal profiles for many business actors will be affected.

*Proposition 4:* In times of economic recession business actors may react to the need for resource adjustment in the short term perspective with, or without consideration for the long term development of network relationships. There is a more autonomous coordination in the first case and a more interactive coordination of temporal profiles in the latter case. (C->D->B..)

*Comment:* The two alternatives are based on different network theories concerning the effectiveness of interaction within long term exchange relationships. There are likely both intra- and inter organizational conflicts on how short term aspects of cost reduction should be balanced against long term preservation and development of effective relationships.(Cf. Klint, 1985 which compares the two alternative adjustments to business cycles in the paper and pulp industry)

*Proposition 5:* In times of economic recession interacting actors with a long term temporal orientation, including past, present and future viewing direction and a wide spatial orientation will be able to coordinate temporal profiles of resource adjustment more effectively than actors focusing on short term autonomous adjustments with narrow spatial orientation (C->B->D->B)

*Comment:* The proposition is based on the information from Wärtsilä above which suggests that business relationships involving long term agreements with a service/maintenance context and information exchange about changing business conditions facilitates resource adjustments.

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