THE IMP JOURNAL

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ISSUE 4.1

A Letter From The Editor

Welcome to a new issue of IMP Journal – the first in volume 4. First, a big thank you to David who managed to take us through the first three volumes of the IMP Journal. The change of editor does not signal any change of orientation or content. We will continue to publish articles dealing with interaction in business settings and we are especially interested in empirically based articles. Informative cases about business interactions taking place in different geographic, technological or social contexts are highly appreciated.

In this issue we are pleased to present four articles from some of the most senior IMP researchers. The ambition is to present some pictures of problems and issues currently dealt with by these researchers. Together they provide an interesting mixture of where the research has taken us. In one way or another all are struggling with the basic "interaction" issue. In the first contribution Björn Axelsson discusses how it has been possible to use the models developed within IMP in interactions with students, executives and companies. He takes the two basic models – the interaction model from 1982 and the ARA model from 1995 – as starting points and discusses what he sees as major strengths and major weaknesses of the two models. By using some short cases he tries to demonstrate the kinds of problems that will be identified by using the models and the kinds of solutions to which they point. The article becomes an example of the struggling user of business research even when the user is highly competent. This kind of use, which I think we all have experienced, has also been an important input in the research process and has clearly affected what has emerged over time.

The same basic theme comes back in the second article by Geoff Easton. He uses an interaction approach to analyse the relationship between researchers and managers in a number of research projects mainly related to IMP. The emerging picture, in a very empirically rich article, is a good example of interaction studies. There is a very large variation in how both sides see each other and act in relation to each other. There is no surprise in the finding that the researchers are not a homogeneous group – they differ in attitudes as well as experience and position within the research organisation. But there is the same large variation on the management side. There we also have large differences in attitudes and ambitions as well as in how they systematically approach the researchers. There are some who are very systematic and conscious of how they approach the researchers. The majority see it as quite a marginal task. Still, the interviewed managers are probably more research oriented than average due to the fact that they have been part of at least one research project. The conclusion for us researchers is that we have to develop a much more systematic interaction with managers if we want to establish a more interested counterpart.

This will probably take a long time and we can use the third contribution by Per Andersson and Lars-Gunnar Mattsson to gain some ideas about how we can get time to work for us. In their contribution they focus on the temporal profiles of business activities and the temporal orientation of business actors in order to add to the understanding of dynamics in business and relationships between companies. They base their discussion on earlier IMP research on time and their starting point is that all business activities have a unique temporal profile. This includes dimensions such as synchronisation, sequencing, timing and others. All actors' ways of perceiving and relating to time are depicted in their temporal orientation. This is assumed to be related to their network theory and network orientation. These concepts are discussed in relation to three empirical illustrations. In the conclusion part the importance of time is especially connected to six problem areas: mergers, internationalisation, business cycles, horizons in financial markets vs. "real markets", implementations of information and communication systems and logistics.

In the fourth contribution Ford et al., discuss the basic problem of interaction – how it should be conceptualised and modelled. The article is an attempt to find a new way to frame interaction where, due to the existence of "substance", it leaves traces in different ways. It makes time and place important dimensions of interaction. In the suggested model three aspects of time – specialisation, path dependence and co-evolution – and three of space – interdependency, heterogeneity and jointness – are related to the activity, actor, and resource layers of the interaction respectively. This way of conceptualising business interaction will hopefully make this phenomenon both more general and more specific; general in terms of making it easier to relate to other theoretical models and more specific by relating interaction to some specific features of time and place.

Enjoy the issue!

Oslo

Håkan Håkansson

Business Relationships and Networks: Reflections on the IMP tradition

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Abstract

This paper provides a reflective view of some of the developments of the IMP- oriented research. It focuses on the two core models, the interaction model for descriptions and analyses of buyer- supplier relationships and the ARA- network model for analyses of business networks. The discussion takes as its point of departure the three major tasks of a typical academic professional: research, education of students and practitioner training. The discussion addresses some of the strengths and weaknesses of the IMP-approach as reflected by the two models and in relation to the three tasks. It utilises several illustrations to demonstrate the ways in which the two models may support analyses of real events. But it also points to some criticism as well as potential ways to address some critical issues. It is not meant to be a general evaluation of good or bad but rather demonstrating some of the important contributions from the models and also some of the critical issues where continued progress would be desirable. The discussion is solely created by one researcher with a 30 year long experience from being involved with this research in all three fields of practice.

1. Introduction

The present article is an attempt to provide some personal reflections on the IMP research tradition in business markets. As a scholar, I have had a relation to the IMP tradition for around 30 years. This means that I have been involved in the three major duties of scholars working in academia: educating students, doing research and supporting people in business practice. The latter task has primarily taken the form of my working as a consultant in training, educating and advising business managers. The reflections presented below will take as their point of departure my own experiences in utilizing the IMP framework. What are the core observations and findings? What has worked? How has it been possible to make use of the ideas and theories put forward in this area of research? What has been accepted and proved to be of value in the three contexts? What has caused confusion? What has been difficult about utilizing the framework? What weaknesses have been addressed and resolved, and what weaknesses seem to remain? These are some of the questions underlying this article. I cannot address them all in detail. Therefore, the questions will primarily serve as a general background to the text.

It should also be pointed out that I will use a rather limited number of references to the IMP research as such. The background and the general development of the IMP Group and its thinking have already been dealt with by others (see a.a. Mattsson & Johanson, 2005).

Furthermore, it should also be stated that I will primarily emphasize what I consider the two main models in the IMP tradition: the early interaction model (Håkansson ed., 1982) and the business network model, foremost the ARA model (Activities Resources Actors, Håkansson & Snehota, 1995, Axelsson & Easton, 1992). These have also been vital parts of my own research practice.

The early findings in this research tradition pointed to the natural and frequent appearance of long-term

relations[1] in industrial, business-to-business, markets. This was strongly addressed in Håkansson ed.'s early book from 1982, especially under the heading "We Challenge" (in Chapter 1). This notion of the significance of business relations has also been put forward in other research traditions, such as the Relationship Marketing tradition (RM, e.g. Christopher et al., 2002). Thus, the IMP tradition is not alone in addressing these topics. Such alternative approaches have both similarities and differences. For instance, Ford et al. (2002, pp 104-105 and Mattsson, 1997) addressed some of the similarities among and differences between the RM and IMP schools of thought. In Pels et al. (2009), there is, furthermore, a comparison between several schools of thought, including the IMP tradition, all of which have addressed business relationships. In the present text, I will solely focus on the IMP tradition and foremost on the two models mentioned above. I believe that these models and their implications are two highly significant features of this tradition. Let me first discuss the interaction model and thereafter the ARA model.

2. The interaction model

My general assumption is that the reader is familiar with the interaction model. Still, a few words may be needed for general orientation.

The model consists of four main groups of variables:

1. The interaction process as characterized by what is exchanged (products, information, social, financial content) as well as by prioritized issues, involved actors on both sides. Interaction processes take part in relationships between actors. Relationships are, e.g., characterized as being new/old, having a history of small or major adaptations made and so on. The inter-

action process and the relationship are at the core of the model.

2. The characteristics of the involved parties. This has to do with the marketing and purchasing strategies of the involved parties, their respective organizational designs, the product and process technology, the involved individuals and their aims, and some additional features that may have an impact on interaction processes.

3. The atmosphere that surrounds a part of the relationship. This could be expressed in terms of the degree ooperationoflict, ower/dependeny betwen the parties.

. The environment is the oter ontet in which the interaction takes place. This cold ube ucharacteried uas ua ustable dynamic seting, dometicinter-national interaction mode mad it ossie in rather unified ways, to describe bt also to ategate uand usystematically ufind

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[1] The concepts "relation" and "relationship" are used. Relation refers to relations in a broad and general sense. Relationship refers to more specific relations e.g. between a buyer and seller.

The IT company and its new sales organization

The big IT company had recently chosen to carry out all its marketing and sales efforts by introducing a separate marketing unit operating as a cost centre. It did so in order to "get in order" all the visits paid to customers by a variety of its people. Top management of the firm thought that behaviour had previously been like in the "wild west" – nobody really knew what anyone else was doing. The company offered both standard products and advanced customer-specific problem solutions. The latter had developed greatly of late. These products were developed and produced by separate design and production units.

The episode in focus refers to a situation in which the innovative production unit (the producer of customer-specific solutions) demanded an explanation from the present joint sales organization. This is what their representative said:

"Our ideas and suggestions for new products, new solutions to customer problems, end up in nothing. Our sales organization does not sell and seems to be unknown to our old customer contacts. And – we receive very little input via our sales organization".

The innovative production unit even demanded that the sales organizations demonstrate how they operate the market. They explicitly asked the sales units to reveal their contacts at the customers: What kind of professionals do they meet, how intensive are these contacts, and so forth. This is what their representative continued to say:

"We doubt that the sales units have the right contacts to support our mission. We think that their organization and their interaction patterns with the customers are well suited to the sales of our company's standard products, but not to the products we want supported."

The sales units, on their part, argued that they certainly have the contacts asked for but they cannot spend a lot of time on *"endless discussions about a number of loose ideas that do not result in any orders".*

This is a situation from real life. It is probably quite a common one experienced by many sales organizations. It brings us back to an early IMP- article by Håkansson and Östberg (1975), "Industrial marketing: an organisational problem?", which is one of the earliest IMP-related texts. It emphasizes that business marketing is very much about organizing relationships, e.g. creating relevant interfaces between parties using organizational means. But the interaction model can take us further in understanding the origins and the overt outcome of a situation like the one described.

Using the terminology from the interaction model, this is an episode that takes place in a specific exchange and relationship context. It is clear that this episode is part of and connected to exchange processes with several in-

volved actors (various customers to the supplier). The episode is also embedded in a context of previous episodes and, with experiences following from that, the creation of expectations from all parties involved. Furthermore, it is influenced by some of the characteristics of the parties and it takes place in various externally defined contexts. The situation, thus, relates to all four variables of the model. But what support does the interaction model give in providing a principal understanding of this?

Some of the most outstanding features seem to be the following. First, the supplier has a strategy to market and sell two families of products that may or may not attract the same customer. It seems as if the demands on interaction needed to manage the necessary information exchange and to solve problems differs a great deal between the products. The company also operates under economic pressure. It needs a marketing and sales organization that does not cost too much. This takes us to the next, the second, explanatory variable. The company has decided on an organizational design of its sales unit that tends to streamline and standardize too much. In this way, the unit's efficiency seems to be outshining its effectiveness. The company has lost much of its ability to create new business. The new organizational design thus hinders some of the business performance. This is especially true for the customer-specific segment. Three variables of the model – the supplier's strategy, the customer's usage situation and needs, and the supplier's organizational design – seem to be the most significant parts of the model at play in this situation.

The influence of other variables in understanding the fundaments of this episode is more vague. But one can easily understand that changes in contact persons, changes in interaction patterns, etc., may have influenced the atmosphere between parties and, perhaps, also triggered changes among competitors (parts of the environment), e.g. by mobilizing them to try to acquire customers from the focal firm.

The second illustration is similar, but also different...

"The impossible delivery"

During the past five years, the Publisher has concentrated on its purchases of printing services. Today it only has two suppliers. As a result, it has improved its prices (volume discounts). At one of the two, the Printer, the Publisher now takes 40 percent of its total production.

One of the most important markets for the Publisher is university textbooks. An ambitious author and an over-committed project leader at the Publisher have taken too much time to complete their job. The manuscript is not ready to print by the 1st of August, instead it will be ready on the 20th. The Publisher had promised its customers, the course responsible at the universities, that the book would be available in good time for courses starting on September 1st. Representatives of the Publisher inform the representatives of the Printer that this is a tricky situation, but are certain that the supplier will do their best to print the book in about ten days. The reaction is very negative. The production manager at the Printer argues *"this is impossible"* and declares *"I refuse"*. What to do?

A dialogue starts inside the Publisher's organization. Participating in the dialo-

gue is their CEO. The customers at the universities are contacted and receive a positive answer. *"This will be all right in the end".* New contacts are made with the Printer. This time the contacts are at a higher level in the hierarchy. Tough words as well as kind ones are exchanged. There are also threats. Within a few hours comes the final answer from the Printer. *"Yes, we will make it, but only this time, and we want your guarantee that this will not happen again".*

This is also an illustration from real life, and again it is an episode embedded in an exchange and relationship context. Also in this case, we can imagine the potential influence of all four groups of variables. This episode is embedded in one (several) relationship(s). What happens seems to have a great deal to do with characteristics of the actors involved. There is an atmosphere of expectations created, and we see an influence of external (market) conditions.

Some of the outstanding features of this episode are the following: First and foremost, the atmosphere of the two parties is at play, especially in terms of power and dependency. The Publisher clearly utilizes its power in relation to the Printer. But that possibility has been created by, among other things, the buying firm's strategy of sourcing from a limited number of suppliers, thus concentrating its purchases. Therefore, the second significant variable is the sourcing strategy of the buyer to focus on fewer suppliers (and the supplier's sales strategy to allow more business to go to one specific customer). In this way, the two parties have become more dependent on each other – and that is one of the fundaments for all this to happen. A third variable activated is the internal organization of the parties, foremost the

interplay between the operative and strategic levels. We see that both parties seem to have a mechanism in place whereby episodes can be escalated to involve higher decision levels, thus making extraordinary measures possible. The interaction context outside the focussed relationship also influences the process, partly by the initial failure of an indirect contact to the Publisher, the Author, to deliver on time. It also shows the influence of the end users, the Universities and the students, who need to have access to the books at a defined time. Thus, in this illustration, we can identify that at least four of the variables of the model have been at play. Analogous to the discussion from the first illustration, one can also imagine the presence of other variables of the model. The situation is different, and so are some of the variables at play, but the model supports the analysis.

2.2 Reflections on the interaction model

The two illustrations serve to point out how the model can be used as a means to deepen our understanding of the ways in which exchange processes and relationships are conditioned by important elements of the other variables. The reverse is also true; it helps in analysing the ways in which exchange processes condition other aspects (e.g., the ability to implement a certain product strategy). Business relationships are complex phenomena, and we need to be able to distinguish one kind from the other and to analyse various situations with some accuracy. The interaction model is therefore, to my mind, a helpful tool when one wishes to, among other things:

- Analyse and understand specific events within a relationship (e.g., specific efforts to change the content of the exchange processes, e.g. changed intentions to value creation).
- Analyse and understand the relationship as such; is it a strong or fragile one, are there power-dependence imbalances, etc.? Based on such an

analysis, important inferences may be drawn.

- Understand specific drivers underlying (variables influencing) interaction patterns as well as behaviour and responses to various initiatives

- Understand and – perhaps – *prescribe* relevant and matching contact interfaces and interaction patterns between two parties.

The model serves as a way to synthesize numerous potential situations and patterns of behaviour. This is very attractive to me and, in my opinion, makes the model unique.[2]

It has not been a core issue to try to become normative among IMP scholars. But based on empirical observations and the conceptualization provided by the model, I believe we are able to address, in meaningful ways, questions such as the following:

- What should we expect from suitable interaction patterns in a relation built around a standard solution (simple product/service) in contrast to a complex and – perhaps – individually forged one?

- What should we expect from interaction patterns in a relation built around the supply of major production facilities or production equipment in contrast to a regularly delivered component?

- What should we expect in terms of interaction processes (information exchange, safe-guarding behaviour, etc.) when the customer has a single-source strategy in contrast to multi-sourcing?

- What should we expect from interaction processes in a relation characterized by genuine distrust (in the short- and in the long-term) in contrast to a genuinely trustful relation?

- What should we expect in an exchange process where there are no previous experiences of doing business between the parties, in contrast to highly repetitive business?

- What should we expect from an interaction process that is primarily

based on personal trust between the involved individuals, in contrast to one primarily based on corporate- wide performance?

In the introduction, I set out to discuss the findings based on this model from several points of departure, foremost a student's, a practitioner's and a researcher's perspective. Below follows a brief discussion that starts from these perspectives. An overview is summarized in Table 1, below. Following this summary is a more general discussion, using this framework, of some of the developments that have occurred and some that are on- going.

To my mind, the interaction model reveals its core strengths when it is used as a tool to investigate ex-change processes and analyse episodes and relationships. To me, this has been very helpful in lecturing to students as well as practitioners. In relation to both categories, the model has presented a framework and provided a means for carrying on relevant discussions. It creates a generalized preparedness to deal with upcoming or experienced situations. It therefore takes us much further than mere examples and anecdotes. In addition to these categories of users, there are some experienced problematic features of the model (as I see it). Among non-analytic practitioners, one expressed view is that the model is "overdoing" a very natural thing: doing business and handling business relationships! Another practitioner remark is summarized in the following general statement: "It still doesn't give much guidance in making decisions and taking actions!"

Among students, one remark is that the interaction model appears to be old-fashioned, as most applications still seem to be from manufacturing industries. This view is also strengthened by the fact that some of the important variables are "production technology" and "product technology". In practice, business exchanges are increasingly about services and broader market offerings, making these concepts look old-fashioned. The other

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[2] It is true that there are alternative formulations of the model, e.g. Turnbull & Valla (1986) or Halinen (1994). But I connect the efforts to systematically look at and compare relationships with the original model.

remark made by students is that students tend miss the explicit role of individuals and their interpretations, decisions and actions. I have frequently heard the view expressed that the model is very structural and more or less deterministic.

Researchers have also addressed the model's strengths and weaknesses. They seem to appreciate how the model allows them to systematically analyse business relationships in an interesting way. And there is a recognition that the model has helped in opening doors to new and relevant questions/phenomena. The criticism from this group appears to be that many researchers focussing on business relationships seem to prefer more "open" views on relationships. The model steers the view of relationships in a specific direction and, thus, hinders researchers from seeing other dimensions than those included in the model. Furthermore, it may be too closely connected to a manufacturing industry framework, as pointed out in the students' views, mentioned above. This is summarized in Table 1.

2.3 Some developments along these lines

The discussion above

Table 1
A summary of the discussion on experiences of utilizing the interaction model within the IMP tradition. The pros and cons have been discussed in the text and are significantly shaped by the author's own experience. This is true for all three experience domains.

Experience domain	Students	Practitioners	Research
Interaction model	Pros: - Accuracy in understanding business relationships. - Realizing how the relationship notions influence our view of other phenomenon. Cons: - Appears old-fashioned (manufacturing industries). - Missing explicit view of "individuals'" interpretations and actions.	Pros: - Framework for analysing specific business contexts. - Appreciate the emphasis of the atmosphere concept, including power relations, etc. Cons: - Feels like "overdoing" a very natural thing. - Not much explicit guidance in making decisions and taking action.	Pros: - Systematically analyse business relationships. - Seeing phenomenon in new light. Cons: - Prefer more "open" views on relationships. - Too closely connected to a manufacturing industry framework.

pointed to some ways in utilizing the interaction model to generalise about expected patters of interaction in various situations. In this section I want to take one step further and illustrate developments along these lines with some studies published. It is meant as illustrations not a comprehensive list of all relevant studies.

Already in the IMP book from 1982, various authors discussed themes that had emerged from the interaction model, e.g. patterns of interaction caused by the production technologies exercised (Johanson, ibid), the role of the individual's personal contact network (Cunningham & Turnbull, ibid.). One study along these lines that came later is Hallén and Seyed-Mohamed (1991), where the impact of production technology on the interaction pattern was investigated using statistical analysis of sample data. They found a statistically significant outcome for interaction patterns and this variable. One recent study is the development of a classification scheme for services based on how the service is used by the customer: as a component, as a working method (instrumental) or as a semi-finished (raw material) service (Wynstra, Axelsson, & van der Valk, 2006). From this point of departure, the researchers identified "ideal" interaction patterns for such services (dialogue orientation, contact patterns). The deduced interaction patterns have also been tested to determine whether or not they are a necessity for effective interaction patterns to prevail (van der Valk, 2007). The results are quite convincing from a normative point of view. It is a theory test carried out using the case study method (34 business relation cases were used to test the theory). It gives a strong argument for the proposed patterns of interaction as a necessary condition for well-functioning (effective) relationships.

There are also other initiatives that could be argued to address topics like this. Such themes include ways to handle relationships in order to develop trust. The purpose of this section was to illustrate some developments and neither to provide a comprehensive documentation nor a state-of-the art positioning. Still, I think the early orientation of the IMP research as manifested in the Håkansson ed 1982- study and the above venue of example studies does not seem to have been frequent on the agenda during later years.

The interaction model has been highly fruitful. As pointed out above, it has provided ways for students and business managers to build a nuanced view of the kind of situation or relationship they are looking into. There should, however, still be a great deal more to say about this. Thus, I think much more of this kind of structured analyses would be of great value in the future. In developing such themes, many other bases of knowledge could be utilized, e.g. lessons learnt about power/dependence, trust- creation, interaction in relation to b2b- services, and so on.

2.4 General reflections and notes on potential problems associated with the interaction model

Over the years, there has been some questioning and criticism of the model (and the IMP approach as such). This has already been addressed to some extent from the point of view of the three segments above. The following is the author's own synthesis.

Three such critical issues seem to be rather common: 1. The model's relatively limited focus on individuals involved in business and their interpretations and actions, and the implications of this. 2. The model provides a view of being static; business practice is often highly dynamic, which is not adequately reflected by the model and applications carried out. 3. The environment outside of the dyad is not dealt with using sufficient sensitivity. These three topics will be considered individually.

1. The critical points of view on the role of the individual and her interpretations, etc., are actually put forward in the basic model. The characteristics of the involved parties distinguish the organizational level and the individual. Therefore, this claim should probably be considered more a problem of application. It may be that we have seen relatively few studies focussing on how the actions of either party are interpreted by involved actors. One exception is Klint (1985). He indentified a number of critical events (episodes) that took place in relationships between buyers and sellers in the pulp and paper business. Respondents were asked about their interpretations of these episodes based on a frame of reference that defined a relationship context[3]. One could think of a few other studies along these lines. Still, it is probably the case that the bulk of studies based on the interaction model have looked more into interaction patterns as outcomes of structural variables such as production technology. These variables as a basis for analyses may seem less relevant in many contexts, e.g. many interaction processes involving services firms. A study of research in sales management by Åge (2009) points to this issue; interaction processes are key to quality in services. This is due to the importance of staff performance in various service encounters that involve actually meeting customers. Bringing the right people into the interaction process, i.e. designing the supplier-customer interfaces, is

not only a matter of the right position, role and general competence. It is also largely a matter people on both sides of the relation getting along well together – of being able to pick up the signals of the other party even when they are not expressed in written or spoken language. It may be that the IMP school has underplayed this aspect, perhaps not so much in the construction of the model, but when judging on the basis of most applications of the model.

2. The next criticism, or claim, is that the interaction model is static, whereas business practice, interaction processes and relationships are highly dynamic. There are gives and takes, steps forward as well as steps backward, suggestions for alternative solutions and prices, negotiations, changes in partners, conflict and cooperation, etc. The dynamism aspect does not seem to be apparent. This may to some extent be a model design problem. When we wish to illustrate dynamism, we tend to use, e.g., circular or spiral technique (e.g., vicious circles) or feedback loops. There are no such techniques in place in the visualization of the model. Therefore it does not look dynamic. However, there are several dynamic concepts included, such as the emphasis on processes (interaction, exchange, etc.), power/ dependency, and (degree of) dynamism in the environment.

   There is some early work pointing to a certain kind of dynamism, e.g. Ford's (1980) discussion of business relationships passing through various stages of development, though it may be criticized for not strongly emphasizing that there is no self-evident movement from one stage to the other and that the

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[3] It could be argued that he did not make use of the whole interaction model and therefore would not be a totally relevant example of how the model has been used. But the focus of the study; the episodes in relationships, interpretations and outcome on perceived demonstrations of trust, power, etc have the kind of business and analyses "flavour" I am thinking of.

processes may lose their direction. This discussion is still about interaction, and it is dynamic in nature. In the future, it may be a relevant priority to somehow bring more dynamism into the model, both also to apply it to contexts and situations that are truly dynamic – and to focus on the dynamism aspect! This is definitely an important feature of business practice, and it would be satisfying to see it convincingly captured in future research.

3. The relationship context is a very broad category in the original model. What impact it could have on interaction processes and relationships is to some extent addressed in the 1982 book. There is, e.g., a discussion on interaction processes and the environment; whether it is a dynamic or stable environment, or whether the market is homogenous or heterogeneous. But that is a rather brief discussion, and when it is obvious that other relationships often significantly impact on a focussed relationship, it is clear that one needs to take a closer look at the environment. The interaction model does not provide that connection. (Models need to be simplified and focus on something.)

In contrast to the two critical topics raised above, this one is hardly caused by lack of applications. Quite the contrary, there are a huge number of studies on business networks. But in those studies, IMP researchers have gone beyond the interaction model and moved into the ARA model (or other potential frameworks). In a way it could be argued that studies in line with the ARA model have even *replaced* studies in line with the interaction model. This could

be seen as a move towards becoming more accurate in defining and scrutinizing the fourth group of variables: the environment of the relationship. The connection between the interaction and the ARA models deserves more attention than this, and thus I will return to this issue later on.

Before moving on to the ARA model, some summarizing thoughts should be presented. The interaction model has been very helpful. It has clearly supported both students' and managers' thinking about relationships. It can be used, in more principal and generalized terms, to understand the specific interaction context. It has also guided researchers into interesting projects. Still, our understanding is not yet complete, and it would be desirable to see more work in this field that builds on the model. In the discussion above, some such areas have been pointed at.

3. The network model – bringing the environment in

A major move in the IMP research was when researchers started taking a closer look at more than one relationship at a time, thus shifting their attention more strongly towards the external context of the specific relationship. Based on the notion that relationships (dyads) often are conditioned by relationships outside the dyad – and that the dyad has an impact on relationships outside the dyad, the environment was looked upon as various kinds of network settings. This relates to the third critical reflection above. What is outside the dyad could, and in many cases perhaps *should* preferably, be considered embedded in contexts of – somehow – connected relationships.

The key model developed for analysing business networks is the aforementioned ARA model. Even if it is assumed that the reader is well aware of this model, some words of characteri-

zation are needed as a background to the coming discussions and illustrations.

The framework builds on the three layers of substance in a relationship and/or in networks: activities, actors and resources. Actors could be firms or individuals as well as units in a firm. They could also be other organizations, such as governmental bodies and other stake-holders. Actors carry out activities of various kinds (production, distribution, communication) to perform functions, i.e. to create value. In doing so, they need to have access to resources such as knowledge, production equipment, energy. Ongoing operations lead to the creation of connections between activities among several actors, thus causing activity networks to emerge. But it is also the case that the existence of activity networks makes it possible to connect activities and thus causes activities to emerge. Therefore, networks are undergoing change, but frequently with a specific pattern as their point of departure. Ongoing operations likewise call for the mobilization of resources, thus causing related resource networks to emerge. It is, again, true that the resource layer is an important pre-requisite or context for new resources. The performing of activities and mobilization of resources involves actors of various kinds, thus causing networks of actors to emerge. These networks (activity, resource, and actor networks) are more or less overlapping and connected. Researchers may choose to put the primary focus on, e.g., the resource dimension (cf. Baraldi & Vedin, 2006), the activity dimension (cf. Waluszewski, 1996) or the actor dimension (Liljegren, 1988). In doing so, the other dimensions are still in operation, but placed in the background. Naturally, researchers could also put equal weight on and strive to explicitly integrate the three layers.

This is the basic frame. Based on empirical studies and analyses of business networks, researchers have noticed that network settings can differ and can play significant roles in various ways in business.

There has been a great deal of conceptual thinking that often has generated relevant and interesting knowledge. The ARA model has been appreciated for the structure it brings to descriptions and analyses, but also criticized. Later on we will return to some of the principal topics of such criticism. It should also be emphasized that alternative network models do exist. Some of them emphasize what have been called "strategic networks", which are often actor-oriented and focus on top levels in the firms and which may include explicitly declared (formalized) strategic alliances between two or more cooperating firms (Thorelli, 1986 and more recently Gulati et al., 2000). Other studies are more concentrated on the level of individuals and tend to either focus on the social capital of the individual, allowing, e.g., the individual entrepreneur to mobilize resources to benefit ongoing ventures, or on structures and measurements of network formations. Studies of this kind tend to emphasize the strong tie/weak tie notion (Granovetter, 1973) and the filling of "structural holes" (missing connections) by linking relationships (cf. Burt, 1992). To my mind, much of the variance in network studies and foci boils down to two fundamentally different views and definitions of networks and their resulting varied implications.

Networks could be defined as:

A. "*Alliance networks*" that constitute networks of co-operating firms that have explicitly decided to join forces as a group. An alliance network is thus a defined group of two or more partners who, to some degree and in some parts of their activities, will have common goals and a joint view of the network. Such networks can be defined as "*A number of actors acting together in order to achieve common goals*".

Selected members create alliance networks for specific purposes. The other alternative view is the following.

B. "*Emerging networks*". We find networks emerging from co-operation between individual actors (firms, organizations, or individuals). As a result of ongoing activities involving various actors in a field of activities, relationships and network structures evolve. These structures can be distinguished by various themes, e.g. an industry. There is thus a web of interlinked connections, but no clearly defined boundaries excluding certain actors from the network.

Each firm cooperates with a number of firms and other organizations. To some extent, the partners involved in a focal firm's network can be identical to those of another network, and to some extent they can differ. The buyers and sellers, around which the network is formed, can be active in different stages of a typical value added chain. However, they are all to some extent connected. It may also be possible to distinguish a number of more or less overlapping networks. A firm may be part of many networks, for example within an application area, while an individual may be part of numerous networks of professionals.

This means that there are no clear boundaries of the network. There is thus no such thing as *the* Network. One actor's view of the network may differ from the views of other actors. The actors involved may even have significantly different goals for their network activities. This kind of network can thus be defined as *"A number of connected exchange relationships"* (cf. Cook & Emerson, 1978).

The ARA framework is based on the latter definition. It deals with networks that are ever–expanding (connected exchange relationships), with no clear boarders defining who is inside (e.g., a member of the alliance) and who is outside. It emphasizes the connectedness and emerging aspect. As new exchange relationships be-comes relevant to include in the study it could be done – and thereby new actors as well as resources may become parts

of the study and analysis. It is, thus, not a matter of pre-planned and defined structures, although there is recognition of the existence of so-called "loco-motive"-dominated networks, i.e. net-works dominated by one or a few actors (which are not necessarily able to govern the network in hierarchical ways).

In what follows, my focus will be entirely on the ARA framework, as this is the core IMP domain in this regard. Let us first, as we have done above in the discussion of the interaction model, look at some illustra-tions and some of the ways in which the ARA model may serve as a tool to improve our understanding of the var-ious expressions of the business network phenomenon.

Below are four illustrations of business networks. They have been documented during different time periods and relate to different industries and businesses. Three of them have in common that they build on texts published in various forums and that they illustrate significant aspects of business networks. The first illustration shows how networks can sometimes become strong barriers to change. It is a case study in a doctoral dissertation (Laage-Hellman, 1989). The second case has not been published, but has served as a case in lecturing business networks (as with the two cases used to discuss the interaction model). The third illustration shows that relations and networks can be a very strong force in mobilizing actors and resources to achieve a certain goal. It builds on a book chapter on networks and business renewal (Blombäck, 20002). The fourth illustration shows how a company can actively utilize its international network to promote a certain development. It builds on a case study prepared for educational purposes. It thus has similarities with the first illustration, but is at the same time highly different in other respects.

ASP – bringing new technology

to the market

A steelworks in central Sweden, Söderfors, working in cooperation with the equipment producer ABB (one of ABB's business areas at the time), developed a new tool-steel based on powder metallurgy. It was a development process that took more that ten years and entailed considerable investments, not least in terms of the time spent by several qualified people in a number of involved companies, throughout the process. The steel was called ASP, based on the initials of key actors involved. It was meant as a material for the production of cutting tools like drills, twisters and the like, to be used in industrial applications. It should replace the, by then, predominant conventional speed steel. The most important actors in a system such as this are the following: the steel producers who make the material, the tool producers who make the tools from the material, the distributors of the tools and the final users, predominantly in the car production industry. When car producers make motor-blocs and other metallic components, they need to carry out numerous cutting operations. To do this, they use machines (robots) to which they have attached several tools (drills). In this case, ABB played a role in the development of the new ASP material as an equipment producer and also as a provider of equipment to the steel producer.

ASP is a high-alloyed material and the production process is very complicated. This makes the ASP steel more expensive to produce than the conventional material. But when the material is in place, and the toolmakers take on their role in the value creation process, they have an easier job. As a result, the final tool need not be more than 20 percent more expensive than the conventional. This additional cost should be measured against the advantages.

Pilot tests had shown that the new material was more robust and that the structure of this new material was more fine-grained, thanks to the powder metallurgy. As a result, when it was used, it deteriorated in a smoother and more even process. The material could be used twice as long in the cutting processes, and thus withstand twice as many cutting operations (cutting hours) as conventional steel. This was good news. Who could resist a product that was twice as good in the key selling point at only 20 percent higher costs? There should be a margin for increased profits for all parties involved! Perhaps a final market price that is 30 percent above the present price of these products – and that offers twice as good a performance – would be the final result.

The market introduction of this new material was not at all as easy as expected. The natural first stake-holder to turn to would be the tool producers. They would get a wonderful new material. However, it turned out that they were not enthusiastic at all. If the material can be used for twice the number of operations, we would lose half our sales. How can we compensate for that? If only a portion of the customers turn to the new material, we would have to run two production lines and account for stock-keeping of two assortments; that would be costly and complicated. This is a new material and someone needs to convince the big users in the automotive industry; we don't have such a market organization. The management

of Söderfors then turned to the end users. The most nearby producers, Volvo and Saab, had no interest at the time. They had so many other options for improvement. Next stop was Germany and German producers. They also had many other options. They were impressed by the product, but saw no real advantage in using it. These tools did not represent significant costs in their production relative to many other activities. They did not like the idea of becoming dependent on one small supplier from far away. They anticipated a heavy process in convincing various internal stake-holders. All-in-all, the market was not interested.

In a next phase, when rethinking this product and its potential value, a new idea emerged. Why not use the material to run the operations faster? When the speed of cutting and twisting was increased by 30 percent, it turned out that they needed to consume the same number of twisters and cutters. That was good news for the tool produces. But even more so for the car producers. They could now, in some of their applications, reduce the number of work-stations as well as the number of people operating the workstation. In this way, they could, e.g., reduce the number of work-stations from 21 to 14 in one specific application. That made a huge difference! The machines used needed refurbishment or earlier replacement, which also made the machine producers happy. There were, thus, at least "four winners" (steel makers, tool producers, car producers and machine equipment producers). Based on this, Söderfors gradually started to work this product into the market, but it took a lot of changes in

organization, reallocating people with specific expertise. (Based on Laage-Hellman, 1989).

In this case, it is clear that there was a very cemented structure of activities, resources as well as actors. The activity patterns had been deve-loped and maintained over a long time period. Resources and activities had been allocated and trimmed and the roles of the involved actors specified and step-by-step adapted to gradual changes. These created "hard" struc-tures that even "the best product in the world" had a difficult time defeating. But given that there were several winners, they made it at last. In this case, the ARA model provides strong analytical support. It is possible to trace all activities internal to each actor and between all actors; moreover, the resources invested and used in the old methods as well as those needed in the new method could be identified. Thereby one can look into what changes are needed by actors in the entire network and, based on that, imagine what benefits must be achieved in order for this to be successful. Existing actors as well as needed changes inside presently involved as well as actors to become involved could be analysed. This was not done in the actual situation, how-ever.

Again, this story says something about the impact of network structure. On the actor level, this network is less dependent on specific individuals and more on the structures of activities as well as constellations of resources built over time. Exchanging for examprsa0(n)1.3196831968(n)1.31968(s)-0.3000.3000 tect. Eo mus hasbeenbuild ce-

Kinnarps in France

Kinnarps is a major family business and a leading producer of office equipment. The basic idea is to deliver functional and ergonomically excellent systems for offices. "Personal energy" is the visionary idea in their market communication. The unique selling point is that the company takes responsibility for making a diagnosis of each office and providing a good "systemic" solution primarily based on the company's product lines (chairs, tables, etc.).

Some twenty years ago, Kinnarps had no export to France and no other international customers outside Scandinavia. The market in Scandinavia was very good, and the management team had no plans for any further market extension than that. In spite of this, Kinnarps, somehow, received an order from a Norwegian firm (Norsk Veritas AS) situated in France. The request was met and it turned out to be the first step into the French market. Norsk Veritas had become familiar with Kinnarps' products from operations with customers in Sweden. Now someone from its French office wanted such furniture there.

Torsten Ekstrand, then in charge of the Swedish Chamber of Commerce in Paris, happened to see the furniture on a visit to this Norwegian company. He liked the items so much that he also bought Kinnarps' equipment for the office of the Chamber of Commerce. Wooden furniture in offices was quite unusual in France, and the French business partners of the Chamber showed a great deal of interest in them. "Maybe it would be a good idea to start selling these pieces of furniture in a systematic way", Ekstrand thought. He was – anyway – soon to retire from his job at the Chamber.

Ekstrand made contact with the founder and CEO of Kinnarps. This key individual agreed to the proposal to appoint Ekstrand as Kinnarps' representative (agent) in the French market. Ekstrand hired a French native to support him. They got going very soon. There were many exhibitions and trade fares in a short time, and Kinnarps became represented. Suddenly, there was a major order from Renault, the French firm that by then was in a merging process with Volvo, the Swedish automotive company. People from Renault had seen Kinnarps furniture on a visit to Göteborg.

In the early 1990s, everything looked very promising, when a dramatic change took place. The recession that came at the same time as the Gulf War in 1990/1 led to a dramatic reduction in Kinnarps' sales in France. In a few years, Ekstrand retired as CEO of the French operation and Kinnarps had to take over (insource) the operation. It turned out that, despite the initial successes, it was difficult to manage the French market. Kinnarps' furniture was something genuinely new, but it didn't really seem to be attractive enough. Gradually, people at Kinnarps realized that:

- In France, normally only top managers have their offices equipped with wooden furniture; ordinary employees don't have things that nice,

- There were also great doubts as to whether this furniture would be destroyed by coffee, there is a very widespread habit in France of bringing your own coffee to the workplace,

- Furthermore the sizes of Kinnarps' furniture did not fit perfectly with French standards.

- In addition, the French customers were used to higher discounts on list prices than in the Scandinavian context.

Later on, the situation on the French market improved again. Some years back, Kinnarps launched a new "European adapted" series of furniture, which is expected to solve some of the problems mentioned. The involvement in the market has deepened. Kinnarps is establishhed in Paris, Lille and Lyon. Still, there is considerable uncertainty as to what to do in order to gain a bigger market- share in France.

This case demonstrates a situation characterized by much less hard structures of activities, actors and resources. The products in focus are not equally strictly embedded in related activity structures as in the ASP case. There are, partly as a consequence of this, much more opportunities for change, for finding new customers and for influencing customer behaviour. Furthermore, the events and resulting network connections have developed largely as a result of seemingly random events, i.e. through serendipity. The actors are looking for business opportunities. Decisions and actions come to the surface and they act on the opportunities they perceive and evaluate as "fit for purpose". The network will, as in the ASP- case, put some limits to acting. But in this situation it is a much broader space and there are many more opportunities to mobilise others and find fruitful options to act.

The illustration has in common with the previous illustration that what has happened before acts as some kind of relationship sediment (Agndal & Axelsson, 2004) on which to build actual and future business. Because someone from Norsk Veritas had seen Kinnarps' furniture when visiting customers in Sweden, someone from the French part of the company wanted to bring Kinnarps to France. Because Renault and Volvo had their joint venture, people from Renault came to see Kinnarps' furniture at Volvo in Sweden, and they wanted Kinnarps in France too. Such previous developments create an arena for new events to take place. In this illustration, we can also notice a much stronger focus on the actions of specific individuals. Individuals really seem to make a difference! Individuals, acting within the frame of present and future business structures and events, are able to mobilize other actors and resources to make a change. Still this seems to be within rather narrow confines. But what is described could be understood as actions within activity structures that are not very strict and structured, but still established as structures. The ARA framework also seems helpful in analysing this situation.

The third network illustration is – again – different.

The Freeloader case – networking to mobilize

Freeloader was an IT company founded by two partners, Mark Pincus and Sunil Paul. Their idea was to create an instrument for the Internet market. They wanted to develop an off-line browser that loads your favourite websites even when you are not logged on to the Internet. This was by then a new feature.

They really entered a networking process. First of all, they made contact with anyone in their surroundings, a number of good

friends, whom they thought could be of help in realizing the idea. Mark and Sunil contacted – via such "contacts" or acquaintances – a multimedia company, who helped them build a prototype of the product. The next step was to convince some other friends who happened to be in the Government to find respectable test focus groups. This helped – in turn – the firm to raise venture capital to proceed building their fame. The next step was to approach some people in finance they knew and thereby to attract the interest of some Venture Capitalists. These – in turn – became bridges to major Internet and media actors.

Freeloader used an advanced strategy when entering the PR community. According to Anonymous (1998), the company targeted wire services knowing that other media (newsprint, etc.) often follow in their footsteps. Pintus was, apparently, also a good story-teller, and he actively contacted and met with reporters. The message Freeloader used was that their offer was the latest thing in the market and also "the next thing" in the market. When Pintus ran out of stories to tell about Freeloader's promising product, he chose to based his arguments in the story of another company's similar product, which would soon be on the market. All this gave results when, for example, during two hectic weeks, Freeloader was featured in US News & World Report, Newsweek, Investor's Business Daily and Information Week.

The importance of good PR and hence connections in the media, as well as the deliberate strategy of positioning and building the image of Freeloader, is some-

how illustrated by the following quotations:

"*It was positioned as a savvy happening in a hot space*". "*The ones with better press are getting big bucks, acquired, or venture-capital backing. It bears no relationship to the quality of the product or the quality of the team.*"

Eight months after founding the company, the two founders cashed out 38 million dollars from the buyer Individual without having proved revenues of any sort. However, the acquisition was preceded by a "bidding race" between several interested parties. When Freeloader got the first bid from Individual, they wanted more and hence turned down the offer. By receiving promises from financial institutions to underwrite private placements, Freeloader put themselves in a better position for negotiations. The company also took every chance of mentioning that they had been offered an acquisition when meeting other potential buyers, hence stirring up the surface and playing actors off each other. It turns out that Individual, who finally bought Freeloader, experienced the situation as a "*..kind of rush*".

Further, as incentives for acquiring the company, the chief financial officer of Individual mentions: "....*they had a very good brand recognition...I think we thought it was good for our business. We were willing to deal*". The Freeloader product proved to be no real commercial success in a market that changed very fast and the company divested after less than a year's operations in the new parent company. Individual did let go of the Freeloader product. It was

no longer the hype of the market and the market niche developed. The investments needed for becoming a major actor in the field were too high for Individual, who hence decided to stay in their old core business. (The entire description builds on Blombäck, 2002).

This case illustrates that sometimes, in some networks and in certain general environments such as, in this case, the early IT/Internet hype, networking efforts can mobilize significant amounts of resources as well as generate activities and involve actors. In terms of substance, such as established activity structures of, e.g., ongoing operative activities, there was very little in this case. There was no cemented structure of activities. The same applies to resources. Huge amounts of resources were mobilized, but they brought very little substance in terms of resources dedicated to specific aims. A rather large number of actors were mobilized for the mission. But in this gradually emerging network, they were not yet deeply committed to the mission. All such observations point to a situation with a nascent, emerging network that may have to stabilize. We can also see that it is the two focussed network actors (individuals) who actually perform all the acts of mobilization. It is also clear that this network builds heavily on the personal contacts between involved individuals.

These observations and reflections point to structural aspects as the reason for the emerging pattern of behaviour. There also seem to be "cultural" reasons (the hype-based stress). Regarding the ARA model use in a case like this, the focus would be on the actors and the resources created. It was a process of creating commitment from various stake-holders and of generating some resources for the short term (e.g., to develop a prototype), but also for the long term (e.g., to achieve a financially strong position for the company by attracting financially strong owners). The activities were thus far

rather disperse, resembling a number of campaigns (or actions) serving several purposes along the way. Analysing the activities as activity structures seems, however, to be less meaningful at this nascent stage of network development.

The ARA framework may help us understand why some actors are – and why these specific actors were – so successful in mobilizing other actors and in making them commit resources. But it may not add so much to our understanding of a networking process like the one described.

The fourth example complements the other ones. It is a network of structures similar to the first case (ASP). It has much more of a planned and conscious action view than the second (Kinnarps). Like the third one (Freeloader), it demonstrates deliberate efforts to network in order to achieve the progress wanted. Thus there will be some similarities and some differences in relation to each of the previously presented examples.

ABB Robotics' entry into Japan. Positioning vis-à-vis competitors

In 1982, ABB Robotics decided to establish itself in Japan. If it was to become one of the world's leading robotic producers, it was deemed necessary to be present in that market, as it represented around 40 percent of worldwide sales. Japanese suppliers were beginning to export robots and ABB Robotics realized that competing with them in their home market could create valuable advantages. It would be possible to get a better idea of their way of doing business, and this would be of use in competing with them when they entered the North American and European markets. Another advantage of deploying activities in Japan was that Japanese companies abroad, for example car transplants, the fastest (almost only) growing new production fac-

tories, often bring their suppliers with them from home. ABB Robotics would then be in a better position than other robot producers who were not active in Japan. The possibility to "strike back" more easily at the Japanese in their home market if they became too aggressive in Europe and in the US did not play a major role in the decision.

ABB Robotics established a joint venture with the Swedish trading company Gadelius, which had a very long tradition in Japan. It had until then been the only way of entering this protected market since it, because of history, was considered a Japanese company. Gadelius, however, had limited experience in the industry automation business and also a limited number of contacts with actors in the field. In spite of that, the development looked promising and the operations were considerably enlarged. Thanks to major efforts involving high costs for the operation, they managed to establish some customer relationships. However, in the second half of the 1980s, the positive development halted, and ABB Robotics faced a worldwide economic crisis. The management decided to close down the activities in Japan.

The crisis was solved thanks to an impressive rationalization programme. But some trends in the world market, including the development of Japanese transplants in the US and Japan, accelerated. In late 1980s, ABB Robotics again decided they had to be present in Japan. In 1989 they managed to sign an agreement with X, one of the largest users of robots as well as a producer itself, in Japan. This seemed to be the best alternative available. The old contacts were no longer possible.

ABB's product line seemed to be complementary to that of Matsushita. Matsushita became responsible for marketing and selling ABB's robots. Via Matsushita, ABB Robotics hoped to reach the Japanese car producers and to get their robots installed in their Japanese "prototype factories" to become duplicated as transplants in Europe and the US. Some five years later, the agreement still had not been as successful as was hoped. The market share in Japan was still low and no substantial effects had been noticed in other parts of the worldwide network involved in this business. It is not unlikely that Matsushita was focusing on selling their own products now that they had gained the knowledge and experience they were looking for. (Based on Axelsson, Carlsson & Wynstra, 2003).

In this illustration, we see how actors can try to calculate network effects. By creating a specific relationship (with automakers in Japan), ABB Robotics anticipated improved opportunities to reach other actors (Japanese transplants in the US). This means reallocating activities as well as resources and (internal) actors. This is a very clear case of thinking strategically about networks. In any network situation, there is a repertoire of potential strategic moves. A network actor (e.g. a company) could often identify what other actor or actors it would like to reach. But this may not always be possible. The intended contact may not be interested for various reasons. The focussed actor may then, similar to his case, consider other and sometimes indirect ways of getting there. ABB Robotics wanted to strengthen its position in the US and EU markets, particularly by finding ways to reach Japanese transplants in these regions. This time they saw one route to go via the original factories in Japan and as a second step reach the intended

aim. In general terms actors could consider other potential moves, e.g., trying to find a new partner (as in this case), integrate more strongly with one or several existing ones, dissolve or disconnect one or several actors, by-pass an existing contact, create links to specific partners where direct contacts are not possible, block an actor to prohibit that one from interfering (cf. Smith & Laage-Hellman, 1992). Such strategic moves could most likely be utilized in many network contexts, but they were particularly explicit in this case. The number of potential opportunities and relevant strategies are due to network structures at hand and other features, such as the degree of dynamism in the specific net.

3.1 Reflections on the network model

Observations of business relationships have improved our understanding of several phenomena in business markets. They have demonstrated domino effects – that one action somewhere in the network may have consequences for another, some-times nearby and sometimes distant, but connected, relation. They have shown that actions are sometimes strengthe-ned by activities in other relationships and sometimes weakened. There are many such observations and, as illustrated above, structural features of networks can provide an improved understanding of specific actions and contexts.

The ARA model is a helpful support in analysing potential moves in line with this. It should be, for example, a helpful tool in understanding complex situations and dependencies and analysing questions such as:

- What should we expect in terms of activity, resource and actor fit when it comes to creating change, e.g., intro-ducing a new product or technology in a dense, well- structured, network?
- What should we expect when the product or service exchanged is not a critical one and not strongly dependent

on surrounding resource and activity structures?
- What should we expect when trying to create changes in a nascent and newly created network?
- What should we expect from inter-dependencies of actors and resources when a limited number of key individuals dominate the network?
- What should we expect when a net-work consists of few or many relevant actors?
- What should we expect when a net-work is strongly dominated by one key resource that is controlled by one actor/ firm?

The framework has helped us understand some other significant aspects of business. By gathering experiences and reflecting on them, contributions have been made to topics such as processes of mobilizing others (e.g., Waluszewski, 1996), processes of trust- creation and processes of identity and position building (e.g., Henders, 1992). It has also helped in identifying some general network dilemmas – or paradoxes – reflecting the dynamic dimension of networks and relation-ships, e.g. the following paradoxes (Ford et al., 2003):

- "A company's relationships are the basis of its operations, growth and development and are at the heart of its survival. But these relationships may also tie into its current ways of operating and restrict its ability to change. Thus the paradox facing managers is that a network is both the source of freedom for a company and the cage that imprisons it".

- "A company's relationships are the outcomes of its own decisions and actions. But the paradox is that the company is itself the outcome of those relationships and of what has happened in them. Thus it is possible to analyse a company's position in a network from the premise that the company determines its relation-ships, or that it is determined for them. Both situations exist simul-

taneously and both premises are equally valid".

- "Companies try to manage their relationships and control the networks that surrounds them to achieve their own aims. This ambition is one of the key forces in developing networks. But the paradox is that the more that a company achieves this ambition of control, the less effective and innovative will be the network".

I will not use this text to dwell on these dilemmas. They do express much of the experience generated by significant numbers of network studies. The kind of questions and dilemmas indicated above should be possible to address and analyse in systematic ways by using the ARA model for the basic analysis.

When, in parallel to the previous section, we look into the reactions of the three segments discussed before – students, practitioners and researchers – the following points of view emerge. (The text that follows will be summarized in Table 2 below).

Using the ARA model, students get a complementary and more realistic view of markets in contrast to the dominant market framework from micro-economics. It also becomes obvious that there is a connectedness between various actions and decisions. This should be an eye-opener for those who have not thought of this before. There seem to be some disadvantages too. To many students, the model has been viewed as self-evident (simplistic) and not worth an intellectual journey. Another criticism has been that utilizing the concepts may be considered merely a "translation" exercise, assigning new words to things they see or read about that are expressed using other terms.

Practitioners seem to appreciate at least a "sniff" of the model when applying it. It gives them a helpful tool for obtaining a "map" (that's the "sniff", drawing a picture of the network) and for "seeing" things in a different way. It also helps them focus on some key connections and distinguish the

important from the less important. The cons mentioned by this segment seem to be that carrying out a full ARA analysis is only attractive to people who are highly motivated. It is rather demanding. It also seems as if they either find it trivial or too complicated.

When using the model, researchers have a method for analysing business on a level where e.g. internal activities, resources and actors connects to external (suppliers, customers) and their respective actors, resources and activities – and not just involving the most nearby actors to whom it has direct contact but several more in the relevant business net[4]. In doing so several phenomena are seen in a different light. That is positive, as it sheds new light on various phenomena. The cons are among others considered to be the following: ARA is sometimes criticized for providing a structural and static view of something that is highly dynamic in nature. Furthermore, it is sometimes considered to have problems in terms of reducing complexity, e.g. some "arbitrary" measurements such as defining relevant network boarders (which actors, what activities, what resources to include), business horizons, etc. This could be summarized as follows in Table 2.

There are, however, also several other topics, critical and positive, on a general level that have been addressed or need to be addressed in the future. Below follows my synthesis

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[44] A distinction could be made between the "net" and the "network" as a concept. One interpretation of this is that the network consists of all connected exchange processes while the net consists of a selection made to extract the ones, for the specific study or purpose, most relevant parts of the total network.

Table 2
A summary of the discussion about experiences from utilizing the network (ARA) model within the IMP tradition. The pros and cons have emerged in the text and are significantly shaped by the author's own experience.

Experience domain	Students	Practitioners	Research
ARA network model	Pros: - Complementary view of markets. - The underpinning of connectedness between various actions and decision. Cons: - Evident, simple, (not worth an intellectual journey). - Utilizing the concepts a "translation" exercise.	Pros: - Tool for obtaining a "map" and "seeing" things. - Helps distinguish important from less important (critical direct and indirect relationships). Cons: - The full ARA analysis too demanding. - Either trivial or too complicated.	Pros: - A method for systematic analyses. - Seeing phenomena in a different light. Cons: - Structural and static view of something dynamic. - Problems in reducing complexity, e.g. some "arbitrary" measurements (network boarders, business horizons).

of the situation.

General reflections and notes on potential problems associated with the ARA model

Over the years, there has been some questioning and criticism of the ARA model (as well as of the IMP approach as such). Four such views seem to be more common: 1. It is highly structural and deterministic in view. Connected to this, the ARA model, similar to the criticism of the interaction model, seems to provide a static view. A common question is "where are the interpretations of the involved actors"? 2. It deals primarily with production industries. How useful is this when today's business climate is dominated by services? 3. It discusses functions and resources, but rarely translates this into monetary forms. 4. How can it be synchronized with the interaction model? These four topics will be dealt with one at a time.

1. The first point is, again, a reflection of the suggested relatively limited focus on individuals involved in business, their interpretations and actions and the implications of this. This is thus also repeated in judging the ARA approach in studying business relationships, but in the context of networks. The actor level has often considered actors as companies, not so much as individuals (in companies). The activity level has been studied as structures of activities inside and in- between firms, not so much as actions by individuals. As a consequence, it has been proposed that the model should be complemented by a fourth layer, namely individuals' acting, interpreting processes in net- works (Holmlund et al., 2008). This is similar to the discussions on the interaction model above. The ARA model itself does not imply such analyses, but many applications of it have gone in a structural direction. One excep- tion, which is not unique, is Waluszewski (1990), where a

highly dynamic development process is constructed by a lot of notifying of involved individuals. There are also network studies that have focused on actors' "network pictures" (e.g., Naudé et al., 2004, Ford, D. and Redwood, M. (2005) and Ramos & Ford, 2006), which in a way brings in individuals' views and interpretations. This is true also for Welch, C. and Wilkinson, I. (2002). This constitutes steps towards satisfying some interpretative issues among acting actors. Still, it is probably true that it would be beneficial if, in future studies, the ARA model were to evoke applications that are more interpretative and dynamic in style.

2. IMP research had its origin in manufacturing industries. The industry totally dominated the early studies and probably the models and concepts developed as well. This is probably also the case for the ARA model. But it is not farfetched to use it in, e.g., the case of Freeloader above. In Axelsson & Wynstra (2002) the model is utilized as a general framework for discussion and analyzing the buying of business services. The argument is that services consists of activities and carrying out activities demand resources as well as actors. There may, however, still be a need to apply the model in many more studies on services Industries. In this regard, perhaps the topics discussed in the previous reflection (dynamism, interpretations, action focus) should stand out as even more urgent. That remains to be seen.

3. Some critical remarks concern the general lack of economic figures. Compared to some other authors focussing on value creation in business-to-business contexts, e.g. Anderson and Narus (2004), this seems to be less emphasized in IMP. Anderson and Narus's value calculation approach puts considerable effort into trying to identify the various value elements at stake and, as a second step, estimate the economic worth of these elements to various users. The IMP tradition seems, most often, to stop after having identified changed – improved – functions and the level of improvement in terms of, e.g., time savings or increased customer satisfaction with the business relationship. One could argue that the improved functions are the *real* values and that the rest, the translation into money, is merely calculation. Still, money brings perceived accuracy and it may be a good idea to put more emphasis on economic estimation of the values created. The same applies to cost and profitability aspects of various customer relationships (customer profitability, e.g., Storbacka, 1994 and 2004) and cost estimations of various ways to handle customer relationships (costs of sales organizations, cost of marketing, and resulting performance in terms of income generation). This would also be a way to emphasize the strategic dimension of relationship management. In business practice, when talking to CEOs and CFOs, having a toolbox of financials is valuable. Admittedly, there are some exceptions. One such example is Håkansson and Lind's (2004) study on inter-organizational accounting. This connects to the broader field of inter-organizational management accounting. I think it would be beneficial to see more of this for the reasons discussed above.

4. Topics such as atmosphere – whether or not there is a good, cooperative relationship or whether there are differences in strength and influence – have a prominent role in the interaction

(dyadic) model. Such aspects are, to my mind, much more indirect in the ARA framework. They should be integrated into the the Actor layer. But that aspect seems to be downplayed. The substances of relationships are, according to the ARA framework, the activity links, resource ties and actor bonds (Håkansson & Snehota, 1995). But actor bonds thee way the framework is presented in this source seem to me highly generic. There are bonds, social, technological, economical and this could easily connect to the power/dependency, trust/distrust, satisfaction/disappointment, from the interaction model. But this opportunity is not that obvious I think. Thereby the two models may look more different than they are. The actor perceptions and experiences of what goes on in various relationships and networks as well as trust, power/ dependency and other topics should be integrated in the model. There is nothing in the model hindering this, but it seems to be out of the picture for some reason. I think, therefore, that there is a "missing link" between the interaction and ARA models in this regard. Finding or clarifying this link would be a valuable contribution.

Like the interaction model, the ARA network model has been a valuable tool for both students and practitioners. It has helped in pointing out the roles of relations as such, it has pointed out and created awareness of various relationship-based phenomena (such as domino effects, the impact of indirect relationships). It has also helped in carrying out stricter structural analyses, as indicated in the ASP illustration above. And, of course, it has inspired a great number of researchers and prompted many good studies.

Making students use the tools (the concepts) in analysing various network contexts has worked well, but dealing with managers and encouraging them dig into it has proven more difficult. Still, they may appreciate the basic messages and benefit from their – potential – changed views. It is probably the case that this conceptual framework, which goes beyond a typical two-by-two matrix in complexity, is too heavy to digest. Researchers have been more appreciative. The model has helped bring about some systematic order. One critical remark returns to points 1, 2 and 4 above. I think the increasing interest in Actor Network Theory (ANT, Czarniawska & Hernes, 2005, Araujo, 2007, Andersson et al., 2008) should be viewed in light of this. The ANT school of thought emphasizes the process – dynamic – and processing dimension of business networks as well as the individual's crucial role as actor. The approach looks promising even though it introduces a rather complex terminology. I would appreciate efforts to try to build these dimensions into the ARA framework in more distinct ways, i.e. in line with the suggestions made by Holmlund et al. (ibid.). Another piece of work, in line with a view of gradually correcting or complementing the existing model, is Easton and Lenney's (2009) initiative to add commitments to the model. When acting in a network, actors commit themselves to future activities and to allocating resources of various kinds to specific aims. In doing so, they make commitments, promises that form expectations and are perceived and evaluated in relation to the actors' experience, track record and resources. These two studies indicated points to my mind into an interesting direction as it introduces more of a human touch and could be considered a link to the interaction model where the actor layer (including interpretation, trust, atmosphere) is more in the forefront.

4.   Conclusions and some brief suggestions for future research

This has been a reflective discussion on relations and networks in business-to-business settings. The point

of departure is my own long experience of working rather close to IMP research. The discussion primarily focussed on the two core models of IMP: the interaction and the ARA models.

The discussion has pointed to several strengths of the two models in capturing the complexity of business-to-business. It has clearly helped both in pointing to relevant phenomena and in providing systematic analysis of them. The latter aspect seems largely forgotten today as far as the interaction model is concerned. That stream of research, however, does not yet seem to have been filled at all. But some criticism and problems have also been identified. It seems as if there is a need for some vitalization, to find ways of opening up new doors to phenomena that are unknown, new or different in shape. It seems as if both the interaction and the ARA models would benefit from bringing in the dynamism and the interpretative individual as actor in new and improved ways. I have pointed to some such studies that have already been presented. I don't think such a move and increased efforts in bringing about such studies requires totally new models. Complements to today's situation may emerge from empirical studies with such an orientation, which may, in turn, result in slight refurbishment of the original models. This would provide stability as well as change. We would use what we have and what is confirmed, which gives stability. And we would try to bring in and adapt the model to issues that have received less attention thus far, thereby causing some change. Isn't this also in line with some of the core findings from studies of product development in business networks? Without some basic stability, there is no robust change!

References

Agndal, H. & Axelsson, B. (2004). Internationalisation of the firm. The influence of relational sediments. In Forsgren, M., Havila, V. & Håkansson, H. *Critical Perspectives on Internationalisation*. 437-456. London: Pegamon.

Anderson, J., Narus, J. & N. (2004). *Business Market Management: Understanding, Creating and Delivering Value.* Upper Saddle River: Prentice Hall.

Andersson, P., Aspenberg, K. & Kjellberg, H. (2008). The Configuration of Actors in Market Practice. *Marketing Theory.* 8 (1), March 2008.

Araujo, L. (2007). Markets, Market-Making and Marketing. *Marketing Theory.* 7 (3), 211-26.

Axelsson, B. & Easton, G. (1992). Business networks. A new view of reality. Routledge.

Axelsson, B. & Wynstra, F. (2002). Buying Business Services. Viley International.

Axelsson, B., Carlsson, M. & Wynstra, F. (2004). *ABB Robotics – 25 Years of Managing Business Relationships.* Stockholm School of Economics.

Baraldi, E. & Strömsten, T. (2006). Embedding and utilizing low weight: Value creation and resource configurations in the networks around IKEA's Lack table and Holmen's newsprint. IMP Journal (1).

Blombäck, A. (2002). Networking, a Juicy Fruit for Internet and IT Brands – How Strategic Networking can Build Baloon Brands. In Agndal, H. & Axelsson, B. (Eds.). *Networks and Business Renewal.* JIBS Research Reports No 2002-4, 147-170. Jönköping International Business School in Agndal & Axelsson, 20002

Burt, R. S. (1992). *Structural Holes: The Social Structure of Compe-*

tition. Cambridge, MA: Harward University Press.

Christopher, M., Payne, A. & Ballantyne, D. (2002). Relationship Marketing. 2nd ed. Oxford: Butterworth- Heinemann.

Cook, K. & Emerson, R. M. (1978). Non-Exchange Relations in Networks. *American Sociological Review*, 43, 721-739.

Cunningham, M. & Turnbull, P. (1982). Inter-organizational Personal Contact Patterns. In Håkansson, H. (Ed.). (1982). *International Marketing and Purchasing of Industrial Goods. An Interaction Approach*. Chichester: Wiley.

Czarniawska, B. & Hernes, T. (Eds.). (2005). *Actor Network Theory and Organizing*. Malmö. Liber.

Easton, G. & Lenney, P. (2009). Actors, resources, activities and commitments. *Industrial Marketing Management*. 38, 553-561.

Ford, D. I. (1980). The Development of Buyer-Supplier Relationships in Industrial Markets. *European Journal of Marketing*. 15 (5/6), 339-354.

Ford, D., Berthon, P., Brown, S., Gadde, L-E., Håkansson, H., Naudé, P., Ritter, T. & Snehota, I. (2002). *The Business Marketing Course*. Chicester: John Wiley.

Ford, D., Gadde, L-E., Håkansson, H, & Snehota, I. (2003). *Managing Business Relationships*. (2nd Ed). Wiley

Ford, D. and Redwood, M. (2005). 'Making sense of network dynamics through network pictures: A longitudinal case study'. *Industrial Marketing Management,* 34, 648–657.

Granovetter, M. (1973). The Strength of Weak Ties. *American Journal of Sociology*. 98 (6), 1360-1380.

Gulati, R., Nohria, N. & Zaheer, A. (2000). Strategic Networks; *Strategic Management Journal*; 21, 203-215.

Hallén, L., Johanson, J. & Seyed-Mohamed, N. (1991). Inter-firm Adaptation in Business Relationships. *Journal of Marketing.* 55 (2), 29-37.

Halinen, A. (1994). *Exchange Relationships in Professional Services*. Turku School of Economics and Business Administration. Series A-6,1994.

Henders, B. (1992). *Positions in Industrial Networks*. Marketing Newsprint in the UK. PhD Diss. Uppsala University.

Holmlund, M., Edvardsson, B. & Strandvik, T. (2008). From the sellers offering to the buyers needing in a Business-to-business setting. Paper presented at the IMP-Conference in Uppsala.

Håkansson, H. (Ed.). (1982). *International Marketing and Purchasing of Industrial Goods. An Interaction Approach*. Chichester: Wiley.

Håkansson, H. & Snehota, I. (1995). *Developing Relationships in Business Networks*. London: Routledge.

Håkansson, H. & Östberg, C. (1975). Industrial Marketing – An Organisational Problem. *Industrial Marketing Management*. 4, 113-23.

Håkansson, H. & Lind, J. (2004). Accounting and network co-ordination. Accounting, organization and society. 29, 51-72.

Johanson, J. (1982). Production Technology and User-Supplier Interaction. In Håkansson, H. (Ed.). (1982). *International Marketing and Purchasing of*

Industrial Goods. An Interaction Approach. Chichester: Wiley.

Klint, M. (1985). *Mot en Konjunkturanpassad Kundstrategi: Om den sociala relationoens roll vid marknadsföring av massa och papper.* (Towards a Marketing Strategy Allied to the Business Cycle: On the Role of the Social Relation in Marketing Pulp and Paper) Uppsala: Department of Business Studies, Uppsala University (Doctoral Thesis No 30).

Laage- Hellman, J. (1989). *Technological Development in Industrial Networks.* Acta Universitatis Upsaliensis. No 16. Uppsala Universitet.

Liljegren, G. (1988). *Interdependens och dynamik I långsiktiga relationer.* Stockholm: MTC / EFI.

Mattsson, L-G. (1997). Relationship Marketing and the Markets-as-Networks Approach – A Comparison Between Two Evolving Research Traditions. *Journal of Marketing Management.* 13, 447-461.

Mattsson, L-G. & Johanson, J. (2005). Discovering Market Networks. *European Journal of Marketing.*

Naudé, P., Mouzas, S. & Henneberg, S. (2004). Network Pictures – Concepts and Representations. Paper presented at the IMP- conference in Copenhagen.

Pels, J., Möller, K. & Saren, M. (2009). Do we really understand business marketing? Getting beyond thhe RM and BM matrimony. Journal of Business & Industrial Marketing. 24 (5/6), 322-336.

Ramos, C. & Ford, D. (2006). Network Pictures: Conceptual Development and Preliminary Findings. Paper presented at the IMP- conference in Milan.

Smith, P.C. & Laage- Hellman. J. (1992). Small Group Analysis in Industrial Networks. In Axelsson, B., & Easton, G. (1992). *Industrial Networks. A New View of Reality.* London: Routledge.

Storbacka, K. (1994). *The Nature of Customer Relationship Profitability: Analysis of Relationships and Customer Bases in Retail Banking.* Research Reports No 55, Svenska Handelshögskolan. Doctoral Dissertation of HANKEN Swedish School of Economics and Business Administration, Helsinki.

Storbacka, K. (2005). Create Your Future by Investing in Your Customers. *Velocity.* 1 (1st quarter), 2004.

Thorelli, H. B. (1986). Networks, Between Markets and Hierarchies. *Strategic Management Journal.* 7, 37-51.

Turnbull, P. & Valla, J-P. (1986). Strategies in International Industrial Marketing. London: Croom Helm.

Waluszewski, A. (1990). Framväxten av en ny mekanisk massateknik. En utvecklingshistoria. (The Emergence of a New Mechanical Puld-Technology. A Development Story). Uppsala Universitet. Uppsala University. PhD Diss.

Waluszewski, A. (1996) The Glulam Case in *Developing Relationships in Business Networks.* London: Routledge.

Van der Walk, W. (2007). Buyer-Seller Interaction Patterns During Ongoing Service Ex-

change. Diss. Rotterdam School of Management.

Welch, C. & Wilkinson, I. (2002) 'Idea Logics and Network Theory in Business Marketing', *Journal of Business To Business Marketing*. 9, 27-48.

Wynstra, F., Axelsson, B. & van der Valk, W. (2006). An application-based classification to understand buyer- supplier interaction in business services. *International Journal of Services Industries Management*. 17 (5).

Åge. L-J. (2009). *Business Manoeuvring – A Grounded Theory of Complex Selling Processes*. Diss. Stockholm School of Economics.

Manager - Researcher Relationships

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Abstract

Very little is known about what happens when researchers and managers are involved in research situations. This paper reports on a project which sought to begin to explore these processes and structures through an open interview study of 114 interviewees, managers and academics, of varying degrees of seniority. The results were analysed employing a broad analytical framework using, implicitly, various IMP concepts and conceptualising research episodes and relationships as socio-economic exchanges but also extending them to networks beyond the research interaction dyad. One major finding was the importance, in researching managers and organisations, of the issue of normativity.

1. Introduction

The special issue of the British Journal of Management (Starkey and Madan (2001)) on the nature and purpose of management research fuelled a fire that has been burning since management education and research first began. It was given a new twist and a new language through its linkage to contemporary interests in knowledge creation (modes 1 and 2 (Gibbons et al (1994)). It was however largely focused on the rigour / relevance issue.

Unfortunately this complex debate has been largely conducted at a philosophical or theoretical level without much recourse to empirical data (Starkey and Madan (2001), Hatchuell (2001), Grey (2001), Das (2003), Caswill and Wensley (2007), and Fincham and Clark (2009)). There is very little evidence that anything like an empirical study of what might be called the sociology of management research has been carried out with the possible exception of the book of invited chapters edited by Löwstedt and Stjernberg (2006). However even the chapter by Stjernberg on interviewing refers, in the main, to general normative texts on the process rather citing any empirical research. A UK Advanced Institute of Management International Fellowship provided an opportunity to carry out some preliminary and innovative research which was intended to frame the scope of the topic and surface the issues involved.

The form of the research, its organisation and the research setting, were influenced by the work of the Industrial Marketing and Purchasing group (IMP). Around 30 years ago a number of European, largely Scandinavian, researchers began researching Business-to-Business (B2B) markets, informed by the observation that buying and selling organisations were often, but not always, involved in relationships rather than transactions and networks rather than atomistic markets (Axelsson & Easton (1992), Ford, D. (2002), Wilkinson, I. and Young, L. (2002)).

The IMP group offered a number of major advantages as both a source of theory and a research setting. Firstly there is a high concentration of members in Scandinavia (notably Norway, Sweden and Denmark) who were prepared to help in arranging the research project. Secondly English is used as a second language by both managers and academics in these countries. Finally there now exists a body of theoretical and empirical transdisciplinary work that is as large and coherent as any in marketing or management and one that has helped to provide the analytical basis for this project.

2. Objectives

The overall objective of the study was to provide initial insights into the processes through which researchers and managers become involved with each other when engaged in acts of research. These were always likely to be initial insights since this is, as far as I can determine, the first study of its kind, at least in the field of research into manager - researcher behaviour. As a result, the objective is necessarily open ended. It was planned that the research settings, methods, processes and the disciplines of the researchers involved in the study would be diverse and that such diversity would help to provide a first broad but also rich picture of the nature of manager – researcher interactions and relationships.

There was a secondary objective, which was present from the beginning of the research, and that was to discover how, if at all, normativity was a feature of management research activity. Specifically, were researchers expecting and willing to provide help, advice and consultancy to managers and did managers have similar expectations. This was an issue raised in the knowledge creation and dissemination debates in the mid 1990s discussed above but about

which there remains little empirical evidence.

3. Research Methods

The primary research method was in depth qualitative interviews with both researchers and managers. The sample of respondents was non-random partly because of the difficulty of setting up interviews with busy managers and partly due to time constraints. Instead, a form of cluster sampling was used in which IMP colleagues in key Scandinavian management schools acted as research coordinators, making contacts and setting up interviews with both researchers and managers. The management schools concerned were Stockholm School of Economics (SSE), Chalmers University of Technological (CUT), Gothenburg University School of Economics and Commercial Law (GU), Jönköping International Business School (JIBS), Norwegian School of Management (BI) and Copenhagen Business School (CBS).

The sample was obviously biased in that the initial academics contacted were either IMP colleagues or in a proximate department. However it was possible to extend the range of academics involved on arrival at the research sites by "snowballing" and thereby provide a somewhat more balanced sample. A similar problem arose with managers in that only those who already had good relationships with academics were likely to be contacted and agree to participate.

The interviews were semi directed and began with the interviewees describing their background and research experiences. One or two particular research projects were then chosen and detailed descriptions of the process and content were elicited. Out of these descriptions more general themes emerged and specific questions were only asked where a topic of particular interest had not arisen naturally.

As an experiment in the interviews an effort was made to co-produce knowledge. There was no attempt to maintain distance from the interviewees and academic and managerial experiences were exchanged between the interviewer and the interviewee in the early interviews. In addition information about the research findings were introduced into the discussion in the later interviews. This experiment worked well and led to broader and deeper "structured conversations". The interviews were carried out in the period mid February to the end of May 2004.

The achieved data set involved 114 interviewees of whom 21 were managers although a further 48 academic researchers had substantial business experience. Clearly the main category of respondents was academic due to problems of access. However while the "researcher with managerial experience" group were treated as researchers in the interviews they often reflected upon both their roles which produced a richer picture than would otherwise have been possible.

The academics included a University Principal, deans of Business Schools, professors and lecturers at various levels and PhD students. The managers were mostly middle managers. The interviews lasted about an hour on average. The interviews were digitally recorded and analysed using the HyperResearch software package, which allows sound extracts to be coded for content analysis. Forty three active codes were created and used to code over 3600 sound extracts.

The data were not collected as a random sample and even if this was the case each interview had its own unique identity. Even the interviews within a category, for example Ph.D. students, varied. Clearly there was no sense in tabulating responses numerically. The strength of the data set lies in the capture of key issues and the ways in which they are presented through the language of the respondents. What has been done is to present the results through the population of a broad analytical framework by means of salient quotations. In general what this process does is to demonstrate both the variability and richness of the respondents' perceptions of, or attitudes towards, a particular issue.

4. Analytical Framework

IMP research is focused on buyer – seller relationships and networks of those relationships. In the broad framework used to report on this study, which was partly induced from the data, researcher and manager interactions and relationships replace seller and buyer interactions and relationships.

A simple actor substitution would make managers sellers of information and researchers buyers. However the situation is somewhat more subtle and complex than that. In the original IMP Interaction Approach (IMP group (1982)), exchange episodes were characterised as involving exchanges of products / services, information, financial resources and exchanges of a social nature. Clearly product exchanges are very unlikely to be involved in manager researcher relationships. However research which involves a consultancy element may be regarded as a service exchange. In this case but in this case only there may be a financial exchange. Information exchange would seem to be central to research episodes and of course it need not be just a one way process, manager to researcher. Social exchange almost always plays a major part in interactions and this is particularly true for manager -researcher relationships.

More broadly actors enter into exchanges in expectation of a rich mix of various kinds of returns about which both can have very different attitudes and beliefs. In this case researchers receive information, knowledge and understandings which they can

convert into academic papers, use to obtain research grants, employ as the basis for their teaching all of which allow them to be employed and gain promotion. However they will usually also value the processes by which the knowledge is produced (social exchange) as well as those that occur while working with the knowledge in ways which provide intellectual personal affective benefits. The costs that they incur are the opportunity costs of doing other things in their academic life (teaching, administration) or in their non academic life (leisure time, alternative employment).

For managers the opportunity costs are the time they could be spending on their managerial tasks and while this cannot be calculated it can be experienced in terms of commitments neglected. The benefits are also much less clear. The economic ones are information which may help to improve their own, or their organisation's efficiency or effectiveness. If the involvement is more protracted, as in action research or consultancy, then the costs go up but so too do the potential benefits. In addition managers can experience and value social and psychological rewards as a result of sharing their experiences, concerns and understandings with a researcher. Simply being chosen as a respondent can elicit affective rewards.

The research process itself varies in form and content and of particular importance to the research question is the normative effect of such involvement and the variety of modes of researcher involvement.

Each manager – researcher relationship, however brief, is embedded in a network of other more or less influential relationships and contexts, both personal and institutional. Academics work with academics and managers exist within complex organisational forms. Also the social network that connects researchers and managers and makes such exchanges possible provides the

intermediate context. More distant from the action are the institutional settings within which researchers (universities, research institutes, consultancies, academic disciplines) and managers (departments, SBUs, holding companies) are embedded. Country cultures, industrial structures and institutions also afford differences. While Scandinavian countries have a great many similarities there are also crucial differences particularly in the structure of management education and in governmental influence.

It should be emphasised that this is a framework for initial analysis in what can only be regarded as a scoping study. It was partly created prior to the research but was also heavily influenced by the findings. It attempts to identify the key aspects of researcher – manager relationships and what influences them. Further research is required to discover the particular mechanisms that operate in different situations.

Initial analysis has been carried out but the data set is of such size and richness that the results reported here are necessarily preliminary in nature and more work needs to be done. The results are structured in line with the analytical framework described above as well as identifying key issues within each concept in line with the codes used. Bracketed anonymous and edited quotations are used to illustrate particular points.

5. Findings

5.1 Researchers

5.1.1 Attitudes and Experiences

Researchers' motivations for carrying out, and attitudes towards, research were predictable. For example thinking is a major part of what academics do. In the next 4 sections all the quotes are from researchers, from PhD students to full professors.

"I really want a job where I can sit and think."

Researchers also valued academic freedom and being allowed, within reason, to research what they wanted to research.

"Nobody was interested .. except me."

The variety of academic research was also important for some respondents.

"We try to work with everything all the time"

"I like broad reading..I like to learn"

"I cannot focus ….I enjoy tackling new topics"

Most were enthusiastic and excited about what they did

"I am so excited about it how important our theories are."

"He reintroduced me to that work and I love it".

"I am very interested in what I study. I love my work!"

"I do it for the pleasure of it"

and interested too.

"It's a very interesting history, a kind of fairy tale"

"I have never been bored"

"You must think about your PhD and what's your own interest because it is now so deeply involved and motivated"

Of course knowledge is the basic output of research and respondents were quite clear about its importance and motivational power.

"I wanted to understand what the hell was happening"

"How are elements connected…"

"The main reward is increased knowledge. I know more. That's enough for me"

"I feel overwhelmed by what I don't know."

"I couldn't understand the dynamics of it. I would like to study it more."

"I believe that research is also mental. You have to like it (theory)"

Position and money seemed much less important.

"I have done my chasing for new titles. If I don't get a professorship I'll survive. Research is what makes my life interesting"

"Consultancy? I haven't been that smart!"

"Talking to companies is a waste of my time. If I wanted to make money I would not have come to academic life"

The constraints are mostly familiar

"We don't have the time"

"It's also a matter of where the money is"

However some research results can upset interested parties

"They called the dean!"

"We will not send our people to you (your business school)"

It is clear that the many of the researchers interviewed enjoyed researching managers and organisations.

"I would die as an academic if I didn't meet real people"

"I would like to work continuously with business"

"Now I would be able to do what I actually like to ..work with companies"

"I don't want to sit in a tower and look down on companies"

"Real research and not just seminars and articles"

"I like being very much involved with organisations"

This appears to be partly to do with the social nature of research and knowledge acquisition but also the desire to help, if possible.

"I get so much from them I doubt what I give back"

"Bridge building (to industry) has always been part of my objective"

"It's not proper real research. As an academic you miss some important points. It is nice once in a while to be ahead of them. It gives (us) some respect."

"It's not just to write articles but it's to go out and help people"

5.1.2 Researchers and Normativity

The term normativity means the quality of being normative and in this section refers to the attitude towards normativity of the researchers interviewed; their views as to whether they should give help to businesses. First some comments from those reflecting a normative turn of mind.

"That's my job as well. It's not only to write articles or whatever it is but you go out and try to help people."

"I enjoy staying not only here but spending a substantial amount of our time in companies working together with managers in the companies. Not necessarily running around doing all sorts of actions but working in close collaboration. Staying a substantial amount of time out there to learn how to relate and to establish the right relationships with the practitioners. Learning the language of practical management."

"Yes but I think it is appealing if you hold, keep yourself, don't become the complete consultant."

"My view is that generally speaking, and that goes for all Sweden, my view is that the best researchers are also the best consultants."

"I guess that for almost all researchers, they can't help themselves but think they can change the situation..that can be a problem... as a (consumer) researcher with views on the industry why am I better off than a (consumer)... what better solutions can I give? "

"I should not prejudice any one of my respondents. I want my research to be relevant for them."

And some comments from those who do not, in general, agree. The first respondent doesn't do consultancy because it isn't helpful for their kind of research.

"I don't consult, generally speaking... Talking to companies is a waste of my time... I have written the occasional paper saying, you know, implications for managers but I don't if I can help it... I am doing this (current research) because it gives me a kick."

The second and third respondents simply believe that they are not competent to do so.

"I've never been interested in that (consultancy). I've tried to avoid it. I thought that it was really difficult to try to tell people that have been working

with things and worked for 30 years, what they should do."

"Because it is impossible not to end up with the conclusion that the world is so complicated we can't do anything, because you have to do things. Then, hopefully, eventually (our research programme) will also provide not only some questions but also some answers."

It may be that the two are largely incompatible at least according to one respondent.

"I don't want to mix my research with my advising. I want to keep these things separate. I don't want to convert my role from being a researcher to something else. I think that there is to some extent a conflict between these two roles."

However perhaps there is no choice.

"So in that way I think that it is impossible not to be normative. So whatever we try to do, however we try to do, we are always normative and the question is if we manage to realise that, because if we realise it we can handle it better than if we believe that we are not normative."

5.1.3 Researchers and Ethics

Surprisingly few respondents commented about the ethics of their research methods but those who did were mainly concerned about anonymity. Views ranged from those with largely liberal views to those with views that were strikingly conservative.

"I have promised that if I give named quotations they would have the opportunity to react to them"

"Only a very few of them didn't want their names mentioned"

"This isn't going to be published in a way that will hurt you"

"No one other than me will use this information"

"It's OK as long as you don't mention names"

One respondent quoted one of the managers he interviewed saying rather wistfully.

"I hope we will never be ashamed of inviting you to our house"

Another researcher expressed their general concern by saying

"Do they really know what I am doing?"

5.2 Managers

For managers, involvement in research was generally viewed as a very peripheral activity. Moreover their motivations for getting involved were diverse. A key motivator was specific interest and the possibility of acquiring valuable and applicable knowledge and assistance.

Sometimes the researcher strikes it lucky.

"The nature of my research topic was really hot in the company... and the way I did it was very involving... many hundreds of people were involved"
Researcher

"But also upper management were interested in what we were doing ... I had presentations about that in upper management. I didn't really have this reverse mentoring in a one to one situation. I had it more in the management more as a resource as an internal consultant. I had lots of discussions with them... a change agent... a bouncing board to new ideas."
Manager

"It could be something of value to me in my job as a manager …this is something I don't have time to look into stress reactions or whatever… if a guy came along and said I want to do stress reactions I would say wow perfect"
Manager

At other times the way in is more difficult to find and the rewards have to been seen to be greater and are likely to be a longer time coming

"I always get that question when I am presenting what we are working with "what's the value of this? Can you measure the value (of this piece of research)?" And I usually pose the question back to them can you measure your value of being in this room right now?"
Researcher

"But (the company) came and they wanted to write a history…So what has happened to ..with the original culture? Has it disappeared? Does it still live? What's the continuity? Where are the breaks in the development?
Historian

"So there are different motives. This was one of most brilliant projects, (X's) managing directors' participated in the discussions and it was quite extraordinary to sit there with them. They suddenly said ah now I understand why we still have these difficulties."
Historian

My first thinking is "is this really for my organisation and for me?". I then try to ask the person what is your background. What would you like to see and why… if they say I would just like to do this see this and this and go back and do my paper I would usually say no. I would like them to see more in my company and get more involved because I don't believe they would see the whole picture if they don't … more than just having a couple of interviews It has to be in line with

what we are interested in …Usually when I am involved in …. research projects I always want to put my own energy and meet the people and see what they are really after and can we do this in a good way together instead of just sending them somewhere in the organisation and say I have a guy who would like to look at you I am concerned about their time And that giving back could just be a lecture or a workshop that's fine giving something back.
Manager

Many managers simply value the chance to reflect, learn about new ideas, and have thoughtful discussions.

"I think you get wider views. It's always good getting people from a university out there. I think you get a little more than when you are sitting here every day digging."
Manager

"Gives a new insight into what I am doing"
Manager

"I brought in some ideas from some other companies"
Researcher

Other seeks an outsider's impartial view

"And then we have a discussion.. a point of view how would you evaluate it? My experience is that they find it in a way stimulating to discuss their company with people from the outside who has nothing… I mean we are not shareholders. We are not interested in anything but doing a good job."
Researcher

Managers are however sometimes willing to simply be good citizens

"We did it to be good citizens"
Manager

"*I was a fairly young student so I would say they did it to be good citizens.. to help this young guy mostly but of course it was an issue for them*"
Senior researcher

"*Because they want to be seen and to contribute to the good of the thing... my motivation to work together with the university, because I think it is a part of the society... Both daughters ...they have a need, are going in university and they have a need not by me but by other people who give time for that*"
Manager

However such involvement clearly involves an opportunity cost

"*It is about measuring this quarter by quarter syndrome. It has hit us as well. I mean for instance say that I talk to you today I don't know whether that is a plus or minus. Should be plus of course but if you had been some important person from a business point of view people would have talked about it.*
Manager

There are also some less defensible motives that managers admit to or researchers divine.

"*It's a chance to get away from your everyday life*"
Researcher

"*CEOs, they have nobody to talk to*"
Researcher

"*More interested in talking about themselves than their company*"
Researcher

"*They want to be "seen""*
Researcher

"*Being given the opportunity to say we are supporting research*"
Manager

"*It came in from the top level!*"
Manager

"*He was a friend of the professor*"
Researcher

Anonymity rarely came up as an issue perhaps because

"(They) *don't seem to mind on the whole and some (managers like it (being quoted).*
Researcher

5.3 Research Process

Interviews were the most common form of interaction between managers and researchers that came up in this study and they involved rather complex socio-economic exchange processes.

Preparation was sometimes helpful; sometimes not.

"*I looked up information on the industry so I didn't look stupid*"
Researcher

"*I sent out my topics beforehand*"
Researcher

"*We had a questionnaire for the interviewer but we never used it!*"
Researcher

Generally the researchers used semi structured interviews and were prepared to pursue new topics as they emerged during the interview.

"*I try to follow up when they say something interesting*"
Researcher

"*I tried to answer as honest as I could*"
Researcher

"*Conversation that they feel is very relevant for them*"
Researcher

"*Asking them to tell stories*"
Researcher

This often resulted in the interview progressing to what many researchers described as a dialogue.

"To go from questions and answers to dialogue"
Researcher

"If you have a dialogue you would be stupid if you didn't learn something from it"
Researcher

"Quite brief check list – more a dialogue"
Researcher

But dialogue is not always easy to achieve

"In the beginning there can be a lot of my own voice"
Researcher

"I talk too much"
Researcher

"If they have to talk about something else then that's the price we have to pay"
 Researcher

Further involvement could also lead to the sharing of experiences and the co- construction of knowledge

"You can tell stories about people and they say it's like you were a fly on the wall"
Researcher

This kind of comment was, for obvious reasons, largely confined to senior researchers.
Researchers recognised that trust was required for this process to take place and that this takes time.

"It didn't start out very open but it soon got to that"
Researcher

"I disagree but I don't say anything"
Researcher

There is usually a tension between precision and richness with researchers varying their approach depending on the mix of exploration and understanding they were seeking at any point.

"My questions became more and more precise"
Researcher

"(There are).. tensions between opening up and trust and precision"
Researcher

But at least one respondent argued

"You can ask pointed and difficult questions"

Interviewers took, or were given, particular roles for example the novice.

"Tell me what you know because I don't know nothing."
Researcher

"I took the position of student not understanding these types of diagram"
Researcher

Interestingly the gender role was also mentioned

"I just play the silly woman"
Researcher

One novice woman researcher told the story of how she was finding it difficult to get useful responses from the managers of small manufacturing firms until she hit on the ploy of asking to be shown around the factory before the interview. Another female research remarked

"Maybe I dress up a bit"
Researcher

There were sometimes status and role issues

"He (the senior researcher) was competing with the manager!"
Researcher

Most researchers were aware that an interview should be a rewarding experience for the respondent

"I relate my questions to their own business".
Researcher

"People love to be interviewed because you show interest in their opinions"
Researcher

"Personally I (also) find interviews extremely rewarding"
Researcher

"We (interviewers) are both enthusiastic, like Oh really!"
Researcher

Managers also took roles, usually that of the curious expert

"They expect to give a point of view"
Researcher

"They also want to know what you think"
Researcher

and their reasons for helping were largely those described earlier. However negative experiences could be a problem.

"(He had a) really bad experience with journalists - he was suspicious"
Researcher

A number of technical options emerged, each with its own pros and cons;

the recording of interviews;

"When I was taking notes it was time for them to reflect"
Researcher

dual interviewing;

"It can be more relaxing"
Researcher

and repeated interviewing

"Easier on the second interview, they get to know you"
Researcher

Length of interview was a factor that divided researchers.

"One hour if I am not done I go anyway, I respect their time"
Researcher

"They say I only have 45 minutes and you sit there 3 and a half hours."
Researcher

"If the person talks a lot it is difficult"
Researcher

5.4 Modes of involvement and intervention

A central question in this research was the extent to which researchers actually help managers and their organisation during the research process. Various modes were identified and could be roughly classified as to their degree. In the interpersonal interview situations intervention can take place even if it is in its mildest form

""....and tried to not facilitate change in that sense but I ask questions about whether or not change had been facilitated and in that sense, of course, I provoked change".
Researcher

"I think that we have been a little bit provocative sometimes and said "why do you?""
Researcher

*Of course not everyone agrees
I don't think you can really change people's minds by the questions you ask."*

Researcher

The phrase that was used most often by managers was "a new perspective"

"An outside person with fresh eyes; A second opinion"
Researcher

However intervention can most obviously occur when feedback is provided.

I mean we were not expensive consultants. We were actually honest researchers with a kind of commitment ....We sent them a few pages saying we perceive your strategy is like ......, that was actually a second opinion, a view from outside which is very often a surprise for the enterprise. They don't get it (very often)."
Researcher

I told him I was going to do research in the iron industry ...I don't know that much about your company... and he said OK but what's the benefit for me. I said he could see me as an outside person with fresh eyes.
Researcher

"In my own mind I am creating a mirror to hold up to them, they can see if their hair is a mess"
Researcher

A lot of the things that I am talking about get taken up in their discussion ...One of the senior managers said "I got this from (PhD student)"
Researcher

If this provides a better understanding of the situation then it sends a powerful message.

"They said several times that it helped them understand, it helped them make choices"
Researcher

And what came out of it, they took something out of it, we cannot suggest

you anything at all but we can describe the situation today as a product of the past so you are on a route and there is a path and all complications you are facing today have roots in the past... but we are not advising this with the purpose of helping you ... to help you make choices... they said several times that it helped them understand, it helped them make choices.
Business Historian

Although they started out by saying this is nice because it is free, in the aftermath they see the value of having persons involved with the purpose of seeing patterns, understanding processes rather than sheer delivery of results."
Researcher

"They do say these are our problems and we would like to have an answer... how to deal with it ... for example in Sweden none of the (industry) companies are very large... one of the companies reaches say around 100 people they break. They had a problem; they were asking me, they don't understand how this happens."
Researcher

They see (business school) as some sort of helper producing these kinds of pictures but they are not waiting for that.... It is more that we are a catalyser being involved and helping.
Researcher

Prediction can be even more useful.

"The short term consequences could be that the customers get upset... the long term consequences could be that it works."
Researcher

Advice is the next stage.

They were interested in what came out of the reports and of course we were giving some advice in general but they were not asking for the specific, with

one exception where there was a project we did for (nationalised industry) where they specifically want us to say how they could develop the (programme).
Researcher

"They know that I am a researcher and the next steps they will have to take for themselves."
Researcher

and then implementation of that advice

"In this last meeting it ended up - now we want to do something concrete. We have to do something that will lead to some kind of action and implementation.'".
Researcher

But of course advice is not always heeded

"They have a lot of opinions but they still have all the answers!"
Researcher

Intervention can occur in single one-off surveys but is much more likely to happen when the research is case based, when repeated visits to the firm are required.

"What is needed is such relationships are developed so you can really start to try to find ways to help them."
Researcher

"What am I really on about, that's a tricky role to take because it is action research, I am in it, I am living it.
Researcher

The most interesting finding was that some researchers were, in effect, in an action research mode, without actually labeling or acknowledging it as such.
Action research provides wonderful access, the ability to take part in a natural experiment, the rewards of killing more than one bird with the same stone and, often,

substantial funding. However it raises the problem of objectives that may clash and the need carefully to agree and align actions. Researchers may have to compromise in terms of the data they collect, the theories they use and where they publish.

"Action research ...getting into the dialogues and interventions, you know, with the employees .. and the subject of the research isn't just you thinking about it and then developing the knowledge."
Researcher

"And that was also a problem when I started at (company). From the beginning we wanted to have a (particular theoretical) perspective ... soon we found out it is very difficult to force on the (particular theoretical) perspective and especially when you are in a company. I mean they wanted to do it from their point of view and so we kind of changed it to a (different theoretical) perspective instead."
Researcher

"Still it was difficult to get something out of it like a good article, a lot of that research was very applied"
Researcher

"We always tried to get some openings to write some paper. But it always came in addition to the work".
Researcher

"It was like a business way of giving something back but in my head I have my PhD."
Researcher

"The consultancy outcomes were articulated differently, the papers were trying to catch the fine patterns in another fashion".
Researcher

"Because they are so involved in the practical side of it they can't theorise"
Researcher

Managers also recognise the fact that researchers are not consultants and have dual objectives, work more slowly and don't always offer "simple solutions".

"The consultants are more focused to determine what my needs are, Researchers have a view of what they need"
Manager

5.5 Access Networks

5.5.1 Cold calling

Almost all respondents reported that access by cold calling would only be difficult under certain rare circumstances.

"If you ask top managers to give you an hour of their time they will."
Researcher

"Direct is not a problem"
Researcher

However the practice was quite different. Cold calling seemed to be the exception. Instead researchers used a vast variety of different contacts networks.

5.5.2 Access Routes

At a personal level, researchers exploited friends;

"A network of friends whose fathers were business men who I could draw on at that time"
Researcher

"Sweden is a small country"
Manager

family;

"My father's firm"
Researcher

former colleagues;

"I used to work there"
Researcher

"I went back to my old company"
Researcher

"I work there now as a PhD student or participant observer"
Researcher

"Using earlier contacts and moving around!"
Researcher

and their own personal networks.

"I know the top managers in the management and purchasing area.
Researcher

"If I hadn't known these guys for years they wouldn't have supported the PhD programme"
Researcher

Within the business school setting,

supervisors;

"My professor"
Researcher

"Met at a business school meeting then passed on internally"
Researcher

colleagues

"I got (a colleague) to help me"
Researcher

"Inherited from senior researchers"
Researcher

current students

"Through MBAs links to CEOs"
Researcher

"Mainly through my students in the evening classes final thesis"
Researcher

and past students

"Probably 60% of my respondents graduated from the school"
Researcher

"A personal contact who was on the MBA"
Researcher

Current or past research projects also created contacts that could be used

"He had been interviewed previously".
Researcher

"(Professor) had been here before. He heard about me and he wanted to interview me"
Manager

"Spin - off from another research programme"
Researcher

Alternatively

"Salesmanship - X sold these projects and he is a very good salesman"
Researcher

5.5.3 Contacts within and through the organisation

Once a connection had been made within a firm the identity of the contact shaped the process. CEOs could provide the necessary level of authority.

"Started with a letter to the CEO and it worked its way down"
Researcher

"We need a godfather who will say that you are the people we want to develop with"
Researcher

"He should check with the owner who has given permission"
Researcher

"That person (HRM) has no good contacts in the line"
Researcher

but any kind of contact could work.

"I introduced her to people in my dept"
Manager.

However moving from firm to firm depended on the power of those concerned.

"We always introduced them into suppliers".
Manager

"Outside then inside the firm and snowballing"
Researcher

"Continuing from one firm to another through contacts also family firms linking to (Business School).
Researcher

Another option was to use retirees

"She is a very active, retired and interested woman"
Researcher

5.5.4 Contacts through other organisations

Scandinavian countries also have a vast range of business related associations, representative bodies and development agencies all of whom can provide access to firms and their managers

"I'm an industry person and a representative on industry funding body"
Researcher

"Confederation of industry – indirect (route) that can open doors"
Researcher

"(X) had all the business contacts using the name of local development

organisation"
Researcher

Similarly, events such as conferences, seminars and exhibitions provide fertile ground for making contacts and some business school departments use these modes of operation quite deliberately

"Met someone at our conference"
Researcher

"Speeches with an industrial audience"
Researcher

Consultancy also offered a possible route.

"We knew him very well through research and consultancy for many years"
Researcher

5.5.5 Contacts through publicity

A more passive approach involved persuading the respondents to come to the researcher. This can be done by becoming famous.

"Read your article in a newspaper"
Researcher

"By writing a famous book"
Researcher

"Becoming a media source"
Researcher

5.5.6 Contacting in other cultures

Researching in other countries provided somewhat different experiences.

"Spain was so hard. I was so spoiled in Sweden. I call 28 times"
Researcher

"The French company (they) were the most difficult"
Researcher

"She went to London and she came back and said when I was telling about my research people didn't really believe it"
Researcher

"Cuban government... problem... all lies"
Researcher

5.6 Researcher Networks

Few researchers work completely on their own. Cooperation however can be both stimulating and depressing.

5.6.1 PhD Supervisors

One of the most salient relationships is that between research supervisor and PhD student. Some supervisor relationships are positive and helpful.

"Doing interviews together.. getting my impressions of the field." Student

"We have enough of a shared background"
Supervisor

"I want them to go to the company on their own"
Supervisor

"He didn't have to say very much. I got the whole picture"
Student

"He is my source of inspiration, he challenges me and he gives me very much room"
Student

"We are as close to equal partners as you can get and in that sense and a good friend. And then he is my supervisor
Student

"I get involved in everything he is doing"
Supervisor

"Sometimes he has to hold me back"
Student

Others are less so and there were a surprising number of these relationships described.

"He asked me to do something I wasn't interested in"
Student

"I would probably ask different questions"
Student

"It's very important who you are to do the interview. We have different frames of references"
Student

"I don't feel this has PhD potential. The second supervisor was very angry
Student

"I had lots of room. He had 9 PhDs!"
Student

"When I am there I dominate too much"
Supervisor

"I have certain prejudices, some opinions"
Supervisor

"Some professors, it's like normal work. You work for the professor and you write theses."
Student

"The process I had been involved in was not good"
Student

"They are all embedded in different epistemological (paradigms)"
Student

"He has a really managerial style of doing things"
Student

"Changing supervisors. I didn't get along with supervisor"
Student

"He is a good researcher. (But)I had difficulty in writing in a way that he found satisfactory"
Student

"Perhaps I am not the right supervisor."
Supervisor

"My entry wasn't regulated very much"
Student

"Not too fond of me digging too deep."
Student

"The process I had been involved in was not good"
Student

And, of course

"All doctoral supervisor relationships are different. So very, very different"
Student

5.6.2 Colleagues

Few researchers work completely on their own. Cooperation with other researchers however can be both stimulating and depressing.

5.6.4 Colleagues

Working with other researchers has many of the same problems but the power structure is different. In this case synergy appears to be important. Researchers can complement each other.

"Working with people with complementary skills"
Researcher

"She's not a manager she is a researcher; a perfect combination"
Researcher

"I have a lot of consultancy friends who I work with.
Researcher

"I let other people collect the data"
Researcher

"If you are more confused it is great to be put in a project"
Researcher

Learning from fellow PhD students... is good"
Researcher

Colleagues can also help to motivate

"Puts pressure on me. I am a slow starter"
Researcher

"Of course I sit a lot on my own. Pressure from others helps"
Researcher

Social rewards

"Summer school I used to organise the parties. Ever since we had this clique."
Researcher

"(She) is a friend. I see that as added value"
Researcher

"I was getting fed up working on my own "
Researcher

But relationships can bring problems

"He gets to get his name on the publication and people read it."
Researcher

"People have different working styles"
Researcher

and confusion

"I don't have a formula how relationships should look like"

Researcher

5.7 Academic Disciplines

While the research involved mainly B2B researchers working in the IMP tradition a number of other researchers in other more applied management disciplines were also interviewed. On the basis of this very small sample there certainly seemed to be large differences about what constituted good research and publication. In particular the normativity of these disciplines was much more apparent especially in terms of publication and it is possible to envisage a continuum of management disciplines defined by their normativity. At one end management scientists accept that providing prescriptive theoretical solutions for managerial problems is perfectly acceptable. At the other end critical management studies questions the role of management and would not regard helping managers to manage as legitimate. What became obvious from interviews with researchers in those disciplines closest to the physical, technical and / or controllable aspects of management e.g. operations management, logistics, project management, was that the normative mode dominated.

Engineering management;

"That was a technical project run at that time... the guy was asked to investigate between legislation and some technical developments. He took his time. It's a great thing, those guys have the time for it and the normal people in their normal capacity - well you know how it is. You are stretched for time always. He talked to people inside the company ... and outside the company, he summarised, concluded and said this is the way to go and we used that."
Manager

Government policy;

"I mean when I was working for the (foreign government) that was a different story. I could see the results almost immediately. We were working with politicians, NGOs for social and civil development."
Researcher

Construction contracting

"I would say that the typical article we can publish would look like this. It is rather coolly descriptive 90% and then we are more or less required by the sort of journals.. in the conclusions we draw a number of practical implications which are based on not very well thought out normative assumptions but we are not doing action research or anything like that.
Researcher

"In most of our projects in our department, it's applied together with companies"
Researcher

Operations management

"Well, we go to them. We go to the people we know. We say that we believe there is interest in this area. We see that you have the same problem internally. Do you feel it severe enough to finance our research?"
Researcher

We can hardly ever say an exact outcome but we can have, we can state the ambition, we can state the method, we can state what tools we will use, then it is up to how clever we are to deliver results that is good payback for the money."
Researcher

Logistics

"I think what changed with (Research Programme) actually from doing projects for companies writing big reports you know and stuff like that. (Research programme) is more for me doing research in companies but not

as much being involved and doing, well, answering questions they would have. So for me is more a basic research project. But different disciplinary bases may be a problem."
Researcher

In other disciplines attitudes varied although even business historians were not averse to helping out managers.

"We designed the book in the way they could understand themselves in order to face these challenges"
Business Historian

5.8 Business Organisations

Clearly the organisations that researchers are involved with vary enormously. Some are very close to business schools.

"More a part of their everyday life to have close relationships with universities"
Manager

"They came to the seminar with 7 people... high up managers"
Researcher

"Very open minded culture- they have been very honest"
Researcher

"Attitudes to industrial PhD? – open to this in (company)"
Manager

"The CEO has read two of my papers"
Researcher

However there were clearly concerns about whether this openness could continue as in the past.

"We have open doors but now are going to close some".
Manager

Other researchers had less good experiences with the organisations they research or seek to

research although this seemed to be mostly in situations where action research or consultancy was involved.

"*They want the solutions or the tools to get a solution*"
Researcher

"*They had their own set up framework. Nobody could tell them what to do.*"
Researcher

"*Arrogant snobs. Didn't have anything to learn from anyone.*"
Researcher

"*They didn't want to spend time teaching the other companies how to do business!*"
Researcher

"*They pay but they don't seem interested*"
Researcher

Behaviour was also seen to differ by type of organisation. In particular SMEs were perceived to be unfamiliar with research and also varied, not surprisingly, in their attitudes towards it. Some researchers prefer researching in small firms.

"*They don't know everything. Big firms think they know everything*"
Researcher

"*I have a fondness for them*"
Researcher

"*It is small firms. They are very open minded*"
Researcher

Others are less convinced.

"*More difficult to convince them*"
Researcher

"*Don't understand what research is about*"
Researcher

"*Can't spell research*"
Researcher

Another important factor seemed to be whether or not the business school was attached to a university with a technology faculty.

"*They are more closely tied into more technical research institutions*"
Researcher

"*They have a culture of having a lot of doctoral students in the organisation*"
Researcher

The rate of organisational change was a particularly disruptive influence.

"*Traumatic changes occur*"
Researcher

"*I changed bosses 5 times*"
Manager

"*They had a big reorganisation and they took him out*"
Researcher

"*The original contact person has quit*"
Researcher

Managerial culture also seemed to be a problem for some researchers

"*Written documents are not read*
Researcher

"*I don't want anything old I want something new*"
Manager

"*It's about quarter by quarter thinking*"
Researcher

as did internal politics.

I had a feeling that I shouldn't get too close to the department"
Researcher

There was really a lot of tension between the two departments"
Researcher

"He sent out a letter. I have full access and everyone has to help me".
Researcher

Finally there are some obvious methodological issues about choice of research sites

"I think that we have a huge bias in the companies we address."
Researcher

5.9 Institutions

There are a vast range of institutions in the 3 countries that provide both the context within and the vehicles through which research is carried out.

Firstly there are projects and programmes that are essentially time limited and relatively focused. The Netlog project at BI is a good example of the former with 5 senior researchers and 6 doctoral students working together on a series of interrelated research activities within a common intellectual framework. The Fenix programme, located in SSE and CUT as well as the Ecoles des Mines in Paris, is a well publicised and novel attempt to allow practising managers to undertake "industrial PhDs". Both of these institutions are funded by government and by the firms involved. By contrast the Volvo doctoral programme is financed by the firm with supervision and certification outsourced to various universities.

Secondly, centres and institutes can be considered more permanent entities. Within business schools there are departmental centres such as the Centre for Marketing Communication at CBS that is largely self financing. It has a paid membership of Danish advertising and marketing organisations, runs seminars and produces both academic and close to market research, drawing on the members of the marketing department. The Marketing Technology Centre at SSE was a cross departmental organisation with a similar remit but one which concentrated more on project work to finance its activities. The Gothenburg Research Institute, which both raises research funds and attempts to match researchers and local firms, is an illustration of a single business school centre. Cross business school examples also exist and seem to be more salient in Scandinavia. Examples include the Institute for the Management of Innovation and Technology linking SSE, CUT and Stockholm University, the SME consortium in Sweden and LOK, a logistics research network, run from CBS but involving most Danish business schools.

Thirdly there are a number of more or less informal groups that exist, mainly comprising researchers and managers in varying proportions and for different reasons. These include departments or business schools running free or fee based external seminar series, Executive Clubs, alumni associations and regional / local development bodies with academic membership. In addition there were one or two small scale novel institutions such as, at CBS, a Vice Dean of Knowledge Dissemination and a half time academic researcher who uses his consultancy company as a base for his research.

5.10 Country culture, nature and institutions

All three countries are small in terms of population, highly industrialised, internationally active and social democratic in terms of politics. Most home industries are very highly concentrated in terms of domestic production and specialist education, such as management, is focused on a small number of business schools. The term "small world" was used constantly by respondents to explain their relatively close relationships with industry, commerce and other academics. However there was a strong belief that things were changing. Competitive

pressures and moves to more centrist government policies led some older academics to hark back to a golden age when "the doors were always open".

6 Reflections

This research project was essentially exploratory although I would claim that it has produced some interesting results. However it should be remembered that, firstly, the sample was biased in favour of researchers who were generally disposed to carry out empirical research involving managers. Secondly, many were researchers in the IMP tradition and they in turn recruited other academics and managers who were probably involved in research relationships with managers. As a result the picture that emerges is likely to be one that overstates the extent of manager – researcher relationships and which biases many of their characteristics.

The results were used to populate an analytical framework involving a number of categories (e.g. researcher attitudes) which, on the whole, worked reasonably well in terms of presenting the data. Some categories showed a tendency towards a common result for some of the responses. If they could have been measured in quantitative terms they might be described as forming a reasonably tight distribution around a mean. Conversely other categories were clearly widely dispersed across a distribution of the possible "values" of the "variable" concerned.

Following the analogy with quantitative data there has been no systematic attempt to "correlate" the results between single categories; for example to compare how PhD students gained access to managers as compared to academic staff. This could be the subject for more systematic and in depth future analyses. However an exception was made in the case of adherents of different disciplines having rather different views about normativity. In this case categorisation as a member of a discipline was clear and unequivocal, unlike many of the other categories which were used to analyse the data.

In what follows the results are reviewed and an attempt is made to craft some general observations. The categories where there seems to be some uniformity of responses within a category are presented first.

First of all, not surprisingly, given the choice of respondents, most researchers seemed to be enthusiastic about their profession and gave all the usual reasons for being so, most involving trying to understand their worlds. They were largely interested in what happened within and between organisations and the social rewards of being involved with managers. In terms of normativity most researchers seemed to be at least sympathetic towards the notion of helping managers to be more effective. What was even more interesting was some researchers, including historians, admitted that they were not unhappy about being of assistance to managers though that was not their main goal.

By contrast managers revealed, again hardly surprisingly, that working with researchers was a relatively minor aspect of their lives. Managers were generally unsure about what they had gained from such involvement. Access to managers seemed to be often serendipitous and while researchers claimed that cold calling produced good results they rarely resorted to that mode of contact.

The discussion of the research process largely centred on the interview, and most often the semi structured form. There was a strong feeling by researchers that the process should be two sided with the respondent enjoying the social side of the process as some sort of reward for giving up their time. This often led to long term relationships. The management of internal and external politics was clearly important and

some researchers clearly found this problematic and not something researchers should necessarily have to deal with.

A feature of Scandinavian economies was the relationships of business schools with industry and commerce that might help to smooth the path of researchers. These include strong regional and national, industry and function based associations, trade unions and cross business school research collaborations.

There were many categories in which respondents' answers were somewhat diverse. For example one of the main issues that distinguished among researchers was that of the ethics of research. Some researchers clearly had strongly held beliefs about what was acceptable. Others felt that the pursuit of knowledge (and qualifications?) meant that ethics were less important.

Managers had a wide variety of different reasons for being involved in academic research which varied from near term personal benefits to accepting research as something all members of society should support.

Many and various access networks were used by researchers from family and friends to industry bodies.

In the interview situation it was clear that a wide variety of roles could be adopted (e.g. the naïve woman) and that ways of relating to the respondent in the situation were also diverse.

While it was generally accepted that almost all research represented an intervention in a situation there was a huge variation in the extent of such involvement from the negligible to the considerable. There was also great variety in the forms that the intervention took.

Researcher networks included that most interesting of all researcher relationships; that between supervisor and doctoral student. Here there was a clear dispersion of experiences from rather wonderful to disastrous.

Working with colleagues displayed a similar heterogeneity of experience

The normativity issue clearly distinguished between different researchers with some totally committed to what was, in effect, consultancy, and others claiming that they tried not to be involved in this way. The former mode clearly involved more contact than a single interview and this led on to some respondents discussing the issues and complexities of long term relationships with partner organisations

The main theme that emerged analysing the results from different disciplines again concerned normativity. Some were clearly totally at home with the idea that their main objective was to help organisations in general and managers in particular. Other respondents equally clearly claimed to be members of a discipline whose only goal was the pursuit of knowledge for its own sake.

Business schools in Scandinavian countries, even within their limited numbers, have a variety of different forms. Their overall relationships with industry and commerce appear to be rather strong although the experience of individual researchers varied enormously.

7   Further Research

There is a great deal more work to be done around this research topic and the argument for doing so is that any body of researchers should be reflexive about what they do. This is necessary and does occur at the philosophical level in terms what research methods we should used and what ontological and epistemological positions researchers should take. However there has been relatively little research on how and why researchers behave as they do in the field. There should be more.

In terms of developments stemming from this piece of research the following alternatives are offered.

Following directly on from this research project one option would be

quasi ethnographic study of the processes which occurred before, during and after my interviews with academics and managers, taking into account the variety of different actors and settings. An extreme alternative would be to re-interview one or more interviewees to get their views about what was going on in the first interview process and why. These types of study might throw light on the processes of semi structured interviewing in research using myself to study a situation I was involved in.

Another alternative with the same data set would be to attempt to relate categories to each other. For example one could check for consistencies of beliefs within particular disciplines or the differences in responses between students and supervisors. Especially interesting would be to compare the whole data set of responses from a researcher and a manager they had interviewed. Also, since the interviews were obviously all recorded it would be possible to carry out discourse analyses of the interview situations with particular emphasis on the language differences between researchers and managers.

In terms of new research it would be appealing to carry out a series of longitudinal case studies of the focal relationship between a researcher and a manager. As an extension of this idea the networks of both actors could be mapped out and the extent to which their relationships are dependent on other relationships, and the ways in which this occurs, could be investigated. In both of these cases this would allow an IMP researcher to see what, if any, of the IMP concepts and frameworks would help us to understand long term research relationships.

Other important networks also warrant attention. These might include within institution networks, cross institutional networks and cross disciplinary networks. How any research project is embedded in a set of other relationships might suggest how such relationship might best be developed.

More generally, sociology of knowledge research rarely attempts to include in its remit the relationships between researchers and researched. The IMP group has a tradition of crossing all sorts of boundaries. Perhaps this is an opportunity to use both IMP theoretical lenses and methods in an entirely different but massively relevant field.

References

Axelsson B. & Easton G. (1992).. (Eds.). Industrial Networks: A New View of Reality, London: Routledge.

Caswill, C. & Wensley, R. (2007). Doors and boundaries: A recent history of the relationship between research and practice in UK organizational and management research. Business History 49 (3), 293-320.

Das, T. K. (2003). Managerial perceptions and the essence of managerial research; What is the interloper business executive to make of academic-researcher perceptions of managers? British Journal of Management, 14 (1), 23-32.

Fincham, R. & Clark, T. (2009). Introduction: Can We Bridge the Rigour-Relevance Gap? Journal of Management Studies. 46 (3), 510-515.

Ford, D. (Ed.). (2002). Understanding Business Marketing and Purchasing, London: Thomson Learning.

Gibbons, M., Limoges, L., Nowotny, H., Schwartman, S., Scott, P. & Trow, M. (1994). The New Production of Knowledge. The Dynamics of Science and Research in Contemporary Societies. London: Sage.

Grey, C. (2001). Re-imagining relevance: A Response to

Starkey and Madan, British Journal of Management, 12, Special Issue, S27-S32.

Hatchuell, A. (2000). The Two Pillars of Management Research, British Journal of Management, 12, Special Issue, S33-S40.

Kilduff, M. & Kelemen, M. (2000). The Consolations of Organization Theory, British Journal of Management, 12, Special Issue, S55-S60.

Löwstedt, J. & Sjernberg, T. (2006). Producing Management Knowledge; Research as Practice. London and New York: Routledge

Starkey, K. & Madan, P. (2001). Bridging the Relevance Gap: Aligning Stakeholders in the Future of Management Research, British Journal of Management, 12, Special Issue, S3-S26.

Stjernberg, T. (2006). Interview as a Source of Knowledge. In Löwstedt, J. & Sjernberg, T. Producing Management Knowledge; Research as Practice. London and New York: Routledge

Wilkinson, I. & Young, L. (2002). On cooperating - Firms, relations and networks, Journal of Business Research, 55 (2) 123-132. .

Temporal Profiles of Activities and Temporal Orientations of Actors as Part of Market Practices in Business Networks

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"the element of Time....is the centre of the chief difficulty
of almost every economic problem"
Alfred Marshall (1890; 1961, p.vii)

Abstract

The purpose of the article is to contribute to concepts and methods for research on network dynamics. We introduce a business practice oriented perspective on temporality. Based on literature on organizations we develop a framework identifying temporal profiles of business activities and temporal orientation of business actors. We apply these temporal dimensions to an STS/ANT - based business practice approach that distinguishes between three interacting practices: normalizing, representational and exchange practices. We illustrate the framework with some empirical examples. The paper is concluded with a discussion of how the approach might be applied to research on temporality in business networks. In an appendix, we comment on how temporality is treated in marketing and strategy literature.

Keywords: Time, temporality, network dynamics, market practice

1. Introduction: The Construction of Time in Business Practice

Business managers often bring in aspects of time in accounts of what they do and how they perceive certain business activities.

A former Vice President of Nordea, the largest banking group in the Nordic countries, about the merger process that resulted in the pan-Nordic banking group, gave the following analysis:

"In October 1997 when the deal was announced, Merita and Nordbanken at the same time signalled to other Nordic banks that they were going for a pan-Nordic strategy. Already then, Unidanmark in Denmark showed interest in joining Merita and Nordbanken, but it was agreed on both sides that the time was not ripe for Unidanmark to join. The idea of "mergers between equals" was strong in Merita and Nordbanken, so Unidanmark needed some time to grow and expand through acquisitions before they joined the emerging pan-Nordic Merita-Nordbanken group. In Norway, the situation was tricky due to certain legal restrictions concerning foreign ownership of banks. Here, Christiania Bank was interested. The time for them was also ripe as they feared being incorporated into the large Norwegian bank Den Norske Bank. So Merita-

Nordbanken had also to wait as regards Christiania Bank until the legal barriers had been lifted. Thus, the timing of bringing in new partners was delayed, but for different reasons in Denmark and Norway." (From a research interview by the authors with Karl-Olof Hammarkvist)

The quote indicates the central importance attributed to the timing of certain steps and the sequential order of business actions. Similar accounts were given by managers when describing the intricate processes of a major turnaround in the marketing organization of a company (selected from Andersson 1996):

"- It took much longer time than planned..."
"- The process came to a stop, ...which we had to cope with in some way...."
"- ...and then the process took off, and we were able to work as planned again..."
"- The process was constantly interrupted by other things that had to be prioritized.."
"- We were forced to rethink and change the order of doing things in the project...."
"- Everything suddenly happened much faster than was originally planned..."
"- The timing was not the best..."
"- The timing was perfect..."

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theory (ANT), has recently begun to be used also by IMP researchers. In particular, we will use the ideas on market practices and the shaping of markets presented in Kjellberg and Helgesson (2007).

We base our paper on three conceptual frameworks: a *business network* perspective, an ANT-related *market practice* approach, and the literature on *temporality and organizations*. We refer to ongoing IMP research, in particular to the constructivist lines of research by discussing, for example, actors' network pictures, network theories and network horizons. Our focus on temporality in networks links to a general IMP interest in dynamics.

The disposition of the paper is as follows. We begin by introducing our conceptual framework and discuss how temporal aspects are treated in IMP literature. This is followed by two sections on temporality concepts: temporal profiles of business activities and temporal orientation of business actors. We then introduce a market practice framework, apply it to the temporality aspects and offer some empirical illustrations based on our earlier research. The paper is concluded with two sections, one on a set of business practice phenomena for research and one on business network research in general. In the Appendix, we comment on temporality in marketing and strategy literature.

3. Some observations on IMP research and time

From the beginning, aspects of time have been of major importance in IMP research. The duration and dynamics of exchange relationships as well as investment processes, coordination in technical development, and sequential structure in internationalization are prominent examples of such phenomena and findings. Easton and Araujo (1994) present a general discussion of market exchange, social structures and time. Methodological aspects have been addressed in a temporal perspective (e.g., Halinen and Törnroos 1998). Papers on "timing" have appeared more recently

(Andersson and Mattsson 1999, 2006; Hedaa and Törnroos 2002; Medlin 2002). The time dimension of business interaction has been part of empirical studies and conceptual analyses. It has been observed and explained that exchange relationships of long duration and characterized by intensive interaction not only exist, but are a fundamental feature of industrial markets. Also the networks in which the relationships were embedded influenced and were influenced by such interaction over time. Change in and stability of network structures were seen as being significantly influenced by endogenous network processes.

Beginning with a focus on the dynamics of dyadic relations (the interaction model), such temporal dimensions as duration, temporal bonds, investments in relationships and relationship cycles have been investigated (Håkansson 1982; Ford 1980). Stability and change in firms' supplier structures over several decades (Gadde and Mattsson 1987) as well as the long-term development of one dyadic relationship (Liljegren 1988) are examples of topics in early empirical studies of change and stability covering extensive time periods. In the business network perspective on markets, temporal interdependencies were widened to include connected relationships and actions of a strategic nature to change the connectivity pattern, e.g., by market entry, supply network strategies, new distribution arrangements, mergers and acquisitions, strategic alliances, systems selling (e.g., Johanson and Mattsson 1992). Network conditions for such developments change over time, and therefore the timing of actions is crucial. How such strategic actions cause multiple, sequential and interrelated strategic reactions in others in interconnected networks has been conceptualized as "domino effects" (Hertz 1998).

What might be included in the temporality dimensions of actions and interaction in business markets? In the network literature, with its emphasis on interdependence and exchange processes, there are many examples of temporal analyses of exchange

relationships, technical change, internationalization, purchasing and marketing strategies (e.g., Ford 2002; Ford et al. 2003). Analyses of postponement vs. speculation in distribution provide another example of network studies on temporality (e.g., Gadde 2000). The examples focus on coordination, sequencing and duration.

Hedaa and Törnroos (2002), who have a network perspective on business markets, discuss how timing is both an aspect of the orderly world of routines and of the complex world of unforeseen events. Later these authors have discussed timing as related to managerial intuition rather than to rationalistic decision-making (Törnroos and Hedaa 2005). Another example is Andersson and Mattsson (2006), who analyse timing and sequences of mergers among wholesalers in an industry.

Using the ARA framework, a number of dissertations at Uppsala University related to technology development and temporal dimensions have been presented during the past few years. In his study of demand for electricity in industry, Wedin (2001) refers to activity cycles, that is, to the fact that resources are used at some time, that development is characterized by co-evolution, that technology precedes science, and that specialization becomes more significant over time. In Bengtsson (2003), a study of the reintroduction of an old technology, change is seen as emerging; over time, interaction among actors results in bonds and webs and industrial activities have been developed interactively through time. In Baraldi (2003), a study on the use of IT in product development, temporal considerations include the timeliness of resources, speed-up of resource performance, and technology development understood in a network structural perspective. In a business network perspective, with its focus on interdependence and dynamics in networks, temporal issues are inherently complicated.

In a recent manuscript, co-authored by five core IMP Group members (Ford et al. 2008), the authors build on the conceptual and empirical work of the IMP Group as regards business interaction. They argue that the substantive nature of the interaction gives it an existence in time and space and that these two dimensions "have to be brought to centre-stage" (p. 5) because "time comprises a major opportunity/problem for cti thecri (l)4.47947(e)12.195

internalized, institutionalized, self-evident, and invisible. Time and temporal dimensions blend with the general development and dimensions of business action and market change processes. However, the multitude of approaches to and perspectives with which research has tried to capture time and temporality in social and economic research signals an important conclusion: Time is a multifaceted "element" of social change that cannot be captured easily within the frames of one or even a few chosen perspectives, concepts, descriptions or patterns of thought. The temporality of business actions, for example, has several characteristics. We have introduced the concept of *temporal profile* to capture the overall temporal characteristics of business and market processes. The term was introduced by Sztompka (1993), who stated:

"Every social event or social change has its own proper 'temporal profile', a combination of four temporal characteristics: (1) sequential structure (the pattern of stages specific, for example for daily routines, religious rituals, occupational career, economic growth, etc.), (2) duration (the length of time it lasts), (3) localization in wider sequences,(when it actually occurs) and (4) repeatedness or uniqueness." (p.55)

In organization and strategic management research (e.g., Bluedorn and Denhardt 1988; Ancona et al. 2001), similar ideas have been presented. Ancona et al. (ibid.) state, for example, that "...(one category of temporal dimensions) maps activities to time. Examples are rate, duration, allocation, scheduling, and entrainment... (p. 515)". Six universal dimensions (functions) of time are elaborated by Sztompka: synchronization, coordination, sequencing, timing, measuring and differentiating.

It can be assumed that, in all business actions and activities, some of these temporal dimensions are underlying organizers of the actions. We will briefly describe some of the dimensions, then select for further discussion a few that are of particular interest in understanding actions in business markets. Here, we choose to comment on a set of temporal dimensions/variables that appear frequently in sociology, organization and management research: synchronization, coordination, sequencing, timing, measuring, differentiating, speed, and duration. Several of them have been referred to in the section above on IMP research on time. Therefore we do not repeat these references here.

Synchronization: A large part of organizational life is filled with collective actions. Things are done together often by large numbers of people. Actions in business markets require collective action, interaction and communication. For such actions to occur, actors sometimes must find themselves at the same place at the same time, or the actions have to be coordinated in space during a certain, more extended period of time. A complex process like a major strategic action stretching over a period of time requires certain moments and elements of synchronization between actors within and between firms. The greater the interdependence of actors, the greater the necessity for temporal synchronization.

Coordination: Synchronization leads into the second, more encompassing aspect of temporality in strategic actions: coordination. Processes are related and interdependent and need to be coordinated. The division of work in networks leads to a need for coordination. The mechanisms by which such interdependencies are handled in networks, whether or not such coordination involves direct interaction between actors, constitute the most important dimension linking actions to time.

Sequencing: Both synchronization and coordination are strongly linked to a third temporality function: sequencing. A business action most often involves a logic whereby certain activities or events follow one another in sequences. These sequences relate the individual actions within a time order and to phases or stages in an overall work process.

Sequencing is dependent on coordination, because coordination between different sequences in different processes often involves more than one actor, and in a business network setting, coordination within a sequence is often affected by unforeseen conditions. Coordination is thus dependent on sequencing. If concurrent interdependent sequences are in conflict with each other, coordination is different from a case in which such sequences are complementary. Certain activities in these processes cannot be performed earlier or later in such sequences, and sometimes actors have to wait (or rush) as a consequence of changes in such sequences.

Timing: Sequencing leads into the next temporality dimension: timing. Timing refers to when an activity is performed, not in isolation, but in a dynamic context. 'When' matters for the outcome of strategic change processes in business markets, because conditions change over time. Timing refers to a number of points in time when an act could have been performed and actually was performed. Timing relates separate acts/activities in a process to each other, e.g., in terms of a sequence of acts.

Measuring: Just as in daily life, organizational and business life is also in many respects determined by various ways of measuring and dividing up time and hence the use of resources. This applies both to internal business operations in enterprises and to various dimensions of exchange processes between firms, e.g. how firms measure and value the time spent on certain activities. The introduction of new market strategies will have effects on such stable structures of measuring, also involving processes of introducing new structures of measuring time, and using various time-related measures to organize various work processes. Measuring as part of temporality also gives us a link to the fact that time and temporality in business firms and networks are also the subject of social construction.

Differentiating: Like in social life, firms involved in strategic change processes divide up and demarcate time, allocating certain resources to certain activities, while spending other resources during other periods of time. For example, strategic change processes will most likely have effects on established patterns of time differentiation within and between firms and their processes.

Speed: Speed, rate, tempo are other dimensions that relate actions to time. The speed of business actions can sometimes be perceived as high (or low), and high (or low) speed can sometimes also be viewed as preferred for certain strategic market actions. Speed can also be assumed to be strongly connected to social constructions in processes of business actions.

Duration: Our focus on business actions does not imply that actions are just events that take place at a specific point in time. Instead they are related to episodes of some duration during which activities may be carried out, with different and varying speed.

In the rest of this subsection, we will focus on five of these temporal dimensions: timing, sequencing, coordination, speed and duration. The others will be discussed later. Bringing these dimensions of temporal profiles to the forefront, we can also assume and elaborate on possible interactions between temporal dimensions within the temporal profiles of business activities. Timing, speed and duration are related to each other and to sequencing and coordination. Building on a previous discussion by Andersson and Mattsson (2006), we assume some potential links between timing, sequencing and coordination in connection with activities in business markets:

Timing, coordination and sequencing: Timing influences sequencing. Actors have more or less explicit ideas or plans concerning the time order of activities. The sequence relates the individual activities within a time order and sometimes also to phases or stages in change processes. Sequencing also

affects timing because sequencing might change the pre-planned timing of activities due to changed conditions. Furthermore, sequencing is dependent on coordination because coordination between sequences involves more than one actor in business network contexts, and coordination within a sequence is affected by unforeseen conditions. Coordination is dependent on sequencing. If concurrent interdependent sequences are in conflict with each other, coordination is different from a case in which such sequences are complementary. We can also assume that the timing of specific activities is dependent on coordination, because opportunities for and restrictions on specific activities are affected by type of coordination. Coordination is also , ,, ion om tm
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perceiving and relating to time. We call this the *temporal orientation* of actors and see temporal orientation as an important determinant of the temporal profile of business activities. Ancona et al. (2001) differentiate between three categories of temporal research:

(1) "Conceptions of Time", which can be separated into general types of time (linear, cyclical, calendar, etc.) and socially constructed time. The latter is focused on the ways in which various social groups in different cultural settings are involved in the construction of temporality.

(2) "Mapping Activities to Time" describes research that has studied how events and activities can be mapped in relation to time, e.g., in terms of rate, duration and allocation.

(3) "Actors Relating to Time" focuses on the way actors engage in temporal activities, dividing research into two basic subcategories: "Temporal perceptions" and "Temporal personality", focusing on "the characteristic way in which an actor perceives, interprets, uses, allocates, or otherwise interacts with time" (p. 519).

The authors present a number of time studies, with a constructivist connection, both on a social group and on a single actor level.

Bluedorn and Denhardt (1988), also using a constructionist approach, present time-related research. First, from a macro perspective, they present research describing the connection between temporality, culture and organization. Drawing on well-known social constructivist ideas (e.g., Berger and Luckman 1966), they claim that these macro-oriented texts "demonstrate most clearly that time itself is a variable, not a constant" (p. 300), and "although time is so fundamental that people in any culture regard their conception of it as simply an immutable part of reality, we will see that time is fundamentally a social construction...". Second, they observe a line of time research that has "a clear understanding that time is closely related to organizational productivity and that time

can be viewed as a resource to be managed in the pursuit of organizational objectives" (p. 303). Here, time is considered one of several scarce resources, to be measured and manipulated in the interest of organizational efficiency and effectiveness. Both measurement and manipulation refer to social construction. Third, a line of research focuses on time in planning and organizational design, including issues like organizational perceptions of temporal variability in planning processes. Finally, they define a fourth line of research focusing on time and various types of organizational behaviour. Here, we find research on the individual level, looking at similarities and differences in individuals' temporal orientations, e.g. time horizons and temporal aspects of decision-making. The review concludes that more research has been conducted at the individual and group level than at the organizational level and argues for more analysis of "time management" in organizations (p. 315).

In a third overview, Lee and Liebenau (1999) sum up organizational research on time in a matrix. The four notions of temporality are divided by the factors clock time vs. social time, and time as an independent vs. dependent variable. Social time studies include investigations of "varying time", i.e. how time conceptions differ between contexts, and of "changing time", i.e. aspects of how temporality can change in relation to organizational change.

Pieters and Verplanken (1991) find that actors act, as reflected in their behaviour, with reference to different time horizons and different time perspectives. They act in an interplay with the "moving context". For example, they take different temporal vantage points (in the past, in the present or in the future) and different temporal viewing directions (towards the past and/or the future).

Some organizational studies also address an *inter-organizational perspective* on the construction of time. Bluedorn (1986) describes processes of integrating temporally differentiated activities and behaviours between organizations. Others, e.g. Lee (1999),

focus on how changes in organizational factors such as innovation and technology affect changes in temporal aspects. Lee investigated how information systems affected the temporality of work in trading companies using Electronic Data Interchange (EDI).

These research overviews indicate two important lines of social construction research: one focusing on macro level constructions (e.g., temporality in different cultural contexts), and one on the individual level (e.g., temporal perception and temporal personality). In addition, and as observed by Ancona et al. (2001, p. 518), perceptual variables, although considered mainly individual-level variables, are often applied directly to multiple levels of analysis, including organizational and inter-organizational levels.

Because we are interested in temporality in business networks and markets, we need to especially consider the multilayer aspects of business practice.

As argued by Czarniawska (2004) in a discussion of ANT approaches to studies of temporal aspects of action in "modern institutions", such aspects should be analysed with recognition of spatially dispersed actors and a "kairotic" time perspective, i.e. time is not linear and objective, but related to the actor's subjective perceptions/cognitions and specific contextual situation. In line with this, we agree that it is important to understand that perceptions and interpretations of the market context and market dynamics differ between actors, due to their position in the market, their experiences, cognitions, strategic intentions, etc.

One ANT based study of changes in temporality is Kavanagh and Araujo (1995). They present a multi-layered view of time in which different temporal frames co-exist and draw upon each other for their existence, illustrating the processes through which time is constructed. They show how different forms of temporality are the product of heterogeneous networks combining associations of human and non-human elements. We also acknowledge the role

that material resources and other artefacts play in addition to or as a substitute for face-to-face interaction. As argued by Callon and Latour (1981), if the networks of the social context were simply associations of people, then the social order would not rest on particularly stable or durable foundations.

Thus, we also need to explicitly introduce spatial aspects of temporality. Perceptions and cognitions are influenced by the actors' *network theories*, i.e. their systematic beliefs about network interdependencies and the effects of network endogenous and exogenous forces (Johanson and Mattsson 1992) and their *network orientation* (network horizon, differentiation between types of actors).

To sum up, a business actor's temporal orientation concerns its socially constructed perception and cognitions on which it partly bases business activities. The actor's vantage point, viewing direction and time horizon are related to his/her network theory and network orientation. Temporal orientation influences the temporal profile of business activities. One example concerns the complicated issue of how timing and sequencing of activities are dependent on the temporal orientation (e.g., as regards time horizon and network theory) of several connected actors. Another concerns how actors relate the temporal profile of current activities (e.g., in terms of timing, speed, duration and sequencing) to their temporal orientation (with reference to past, concurrent and future processes). In networks where temporal orientations differ between actors, coordinated activities with regard to their temporal profiles tend to be less likely.

6.   Introducing a Framework for Business Practice

We ended the previous section by connecting ideas about the temporal profiles of business activities with a constructivist view of actors' temporal orientations. We now will relate this reasoning to a conceptual model of business practices in markets. Generally, practice-oriented studies, of which there are many different types, stress "...the

routine, collective and conventional nature..." of human action, which is "...internally differentiated and dynamic" (Warde 2007). Araujo and Kjellberg (2009) discuss a practice and performative approach to markets based on the intersection between marketing, economic sociology, and Science and Technology Studies (STS). Social order emerges as a consequence of recurrent, interconnected, and routinized behaviour. This perspective includes material embeddedness, regards the constitution of agencies and markets as outcomes rather than given, and argues for interaction between ideas and actions.

Empirical studies, often detailed case studies, analysing business behaviour in market economies have been fundamental to the development of the IMP research tradition. During the past decade, IMP-related research has increasingly taken on a practice perspective, more or less with an explicit performative view (e.g., Kjellberg 2001; Araujo 2007; Finch and Geiger 2008; Mason 2008; Mattsson 2005; Hagberg and Kjellberg 2009; Hoholm 2009). Special sessions on market studies have been organized at IMP conferences since 2005. Yet the temporal aspects of practice that were observed by Kavanagh and Araujo (1995) have not been in focus.

The market practice framework we are using is the one proposed by Kjellberg and Helgesson (2007). In the following section, we will discuss how temporality is both an important aspect of practice, and influences the outcome of such practice. Three broad interlinked subcategories of market practice are distinguished: exchange, representational and normalizing practices.

Exchange practice refers to the activities necessary to realize exchange between market actors, as individual transactions and/or as episodes in exchange relationships. This includes what is generally included in selling, buying, pricing, advertising, distribution, etc. In exchange practice, we also include activities that aim to affect the structure of the market, what may be termed strategic

actions, such as market entry, mergers and acquisitions.

Representational practice refers to activities that help to describe and analyse markets and market behaviour, including the situation of individual actors and economic calculation of the effects of market behaviour. An important aspect is the conceptual and theoretical foundation for a specific description and analysis, in our framework an actor's "network theory", i.e. its set of systematic beliefs about market structure, processes and performance and the effects of its own and others' strategic actions (Johanson and Mattsson 1992). Closely related are the "network pictures" studies within IMP, a conceptual framework and method used to analyse network actors' cognitions about the network in which they are embedded (e.g., Ford and Redwood 2005; Henneberg et al. 2010). Abrahamsen et al. (2009) observe that network pictures have a performative role. However, we argue that it is important to recognize that representational practice may include quite different perceptions of markets, based on e.g. micro-economic or network-oriented theories, as well as on hybrids between different theories (Kjellberg and Helgesson 2006; Mattsson 2005).

Normalizing practice is aimed at shaping and implementing norms/objectives for how a market should be shaped and function at a societal (macro) level and at a business actor (micro) level. Thus, normalizing practices include macro-level activities to develop and implement legal and voluntary norms for behaviour in markets and for market reforms in the public sector: Normalizing also includes, at the micro-level, activities to develop and apply individual firms' objectives and control systems in the firms' market practice. This includes norms for inter-organizational interaction.

These practices are linked to each other through chains of *translations* (Callon 1992). Kjellberg and Helgesson (2007) stress the entangled nature of the three practices by conceptualizing "markets as networks of practical

translations" (p. 149). Thus, normalizing practice produces rules and tools that are used in representational practice. Representational practice will produce both market descriptions that can be drawn upon in normalizing practice, and different types of results that feed back into on-going exchange practice. Exchange practice, finally, may influence representational practice through more or less systematic measurements and normalizing practice through the interest that exchange activities create among actors in keeping or changing norms. Norms for accounting may translate into representations of the profitability of different customers that in turn may translate into differences in exchange practice as regards different customers, e.g. price discrimination. Such discrimination may then work against the interests of some actors who refer to normalizing practice aimed at preventing price discrimination. An interesting application of translations in a market practice perspective is offered by studies of accounting practices (e.g., Miller 2001; Ahrens and Chapman 2007).

It is important to consider that the outcomes of translations are not given, and may be negotiated. For example, translations between competition laws, interaction between competitors and description of the relevant market may be negotiated between business actors and competition authorities.

In the next section, we will discuss how temporal aspects may enter into the three practices and the translations between them.

7. Temporality in Market Practice

IMP studies, as exemplified above, have resulted in observations of time, mostly of temporal profiles, less often concerned with temporal orientation. Below we make some general remarks on the three general forms of market practices, and later we will provide some examples from two empirical studies of mergers and acquisitions that we have analysed with regard to temporality.

Exchange practice and time

With a focus on *temporal profiles*: Separate interaction processes need to be synchronized and coordinated. To achieve this, the sequencing and timing of processes are crucial. Differentiation between sub-processes as regards speed and duration is important. Such temporal adjustments between interaction processes are partly handled in joint planning and joint execution processes between actors. They are also handled through individual or joint actions as the processes evolve and are dependent on how flexible the involved actors are.

With a focus on *temporal orientation*: Actors differ with respect to how they account for experiences (their own and others') of the past and how the past is related to the future, as well as to what extent their time horizon is short or long. In an earlier analysis, we discussed how differences in temporal orientation affect adjustments to a severe economic recession (Andersson and Mattsson 2009). The network theories and network horizons influence exchange practices, e.g. in terms of development of exchange relationships, perception of the need to also include indirect relationships in the exchange practice, and the opportunities for structuring changing activities.

Representational practice and time

With a focus on *temporal profiles*: Representations include many standardized reports emanating from the actor's own accounting, production and market information systems, such as annual and quarterly reports, budgets, forecasting, monthly sales statistics, competition analyses, budgets and budget control, etc. Planning of logistics, of product development projects, of new market entries, involves representations of markets and temporal profiles, such as synchronization between reports, duration of processes that are reported, how temporal aspects are measured. Such formal, recurrent aspects of representational practice are likely important, but informal, idiosyncratic activities, and interpretations also need to

be considered. We argue that the actors' network theories and how such theories are aligned with theories underlying the formal practices are important. If, e.g., the formal representation is based on a micro-theoretic market view emphasizing competition, while an actor has a market theory emphasizing exchange relationships, such an actor will represent the market with a great deal of information of an informal character.

With a focus on *temporal orientation*: Temporal orientation affects how learning from the past is represented, how far in the future the market is represented, how distant markets are accounted for. The multilayer aspects of representational practice need to be recognized. For example, a structural or cyclical change at the macro-level may or may not be represented by a similar change at a micro-level. Some actors may, for example, experience growth in times of a general recession.

Normalizing practice and time

With a focus on *temporal profiles*: Societal formal and informal norms such as market laws, patent laws, financial market regulations, accounting standards, contractual obligations, sanctions and rewards related to business behaviour are related to time. Corporate strategies are related to time in many respects. During recent decades, the development of Swedish competition law has been synchronized with concurrent development of the EU competition law. Patent laws stipulate duration of patent protection. Accounting standards and financial market regulations stipulate or influence all the temporal profile dimensions mentioned, i.e. repeatedness, synchronization, timing, duration, measuring, differentiation, coordination and speed. Corporate strategies also include varyingly explicit references to all the dimensions of the temporal profile: sequencing, timing, duration, synchronization, etc.

With a focus on *temporal orientation*: Proposed changes in formal norms such as laws and public and private regulations are based on investigations that analyse the past, present and future attributes and effects of the norms as well as more or less explicitly on network theories. Time horizon and network horizon are both part of the preparation of the norms and of the norms themselves. The multilayer aspect of the norms, i.e. how society as well as individual actors are affected, also needs to be considered. As to normalizing practice regarding the development of corporate strategies, such norms are less formally determined, but engage the same temporal orientation dimensions. The developed strategies that have a normalizing function in practice may be challenged within the same actor organization by informal strategies based on different network theories and different time and network horizons. Strategies employed in a network by different individual actors may also be incompatible with each other as a basis for a common normalizing practice.

Temporal aspects of "networks of translation"

The three types of practices are interdependent, as discussed above. Translations occur over time. Translations contain temporal attributes. Translations may affect other attributes of a practices. Some examples:
a. Competition law is aimed at reducing synchronization and coordination between competitors. (A case in the Swedish Market Court focused on the synchronized timing of a change in discount structure among petrol retailers. Marknadsdomstolens avgöranden, 2005:7)
b. Heterogeneity and asymmetry of representational practices between actors as regards the temporal aspects of their corporate strategies create tensions between interacting actors, for example regarding the timing and duration of a common investment project. It is important to recognize that calculation, including temporal aspects, is spatially dispersed (Czarniawska 2004).
c. Financial market norms require short-term information from the firms, which

likely affects both how "real" markets and the situation of individual actors are represented (quarterly reports, evaluation of short- and long-term future developments of individual firms and "industries") and how firms change or stabilize their exchange practice, e.g. in terms of the timing of an acquisition or the duration of a contractual agreement.

d. As we have argued above, social construction of time also involves artefacts and technology that entail material inter-dependencies. It is not a matter of "purely social" construction. Actors are equipped with resources that may or may not be available in certain quantities and qualities for use in the three types of practices at specific points in time. Investing in a foreign country may not be possible before a document allowing this is granted according to the prevailing norms of that country. Information technology influences how rapidly new information representing certain market conditions affects an actor's perceptions of the future. Available production capacities influence the timing and speed of deliveries. Production schedules for a factory affect plans for deliveries to customers, but the causality may be reversed depending on exchange considerations.

Some Empirical Illustrations

To support and illustrate some of our discussions above, we draw on three empirical accounts:

1. Information, in the beginning of 2009, from a globally active Finnish engineering firm, Wärtsilä, a supplier to power generating and shipping industries.
2. Reorganization through mergers and alliances among electronic component wholesalers
3. Implementing a merger between two firms in the bio-tech industry

1. Wärtsilä reports during the recession

(Below are excerpts from Wärtsilä communication on financial year 2008. After each item we relate to temporal profiles and temporal orientation.)

"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." (timing, speed, measurement, time horizon)

"Difficult to foresee how serious and long the general downturn will be, but effects for Wärtsilä will be limited because even if cancellations do occur there is a substantial order stock for power plant equipment and services." (measurement, sequencing, duration, time horizon)

"Changes in the scheduling of shipyard activities affect the scheduling in the entire supply chain." (coordination, sequencing, network horizon)

"Demand for services continue to be positive. Wärtsilä offers products and services for the entire life cycle of the installed equipment through 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." (sequencing, timing related to normalizing practice, differentiation, network theory, time and network horizon,)

"Big order stock in the beginning of the downturn, flexible manufacturing processes, stability of the demand for services and the global network connections give Wärtsilä time to react to market fluctuations."(sequencing, duration, coordination, time horizon, network theory, network horizon,).

"The fundamental aspects of the power plant industry are unchanged, but the financial crisis will likely influence the timing of the orders." (network theory, timing)

"State financed power generating projects increase as part of economic stimulus packages, but primarily for infrastructural projects and not for industrial self-generating projects." (sequencing, timing, differentiation)

"Difficult to judge when the upturn will

sequencing merger processes and merger of Production and R&D activities. Generally, it seems that temporal orientation related to network theories differed between the two organizations.

Sequencing merger activities: In order not to disturb on-going relationships between LKB sales subsidiaries and their customers, central management wanted to delay the merging of LKB/BTG subsidiaries. However, on the contrary, local initiatives speeded up this merger, leading to an exit of LKB sales personnel and loss of customers. A rapid implementation of Pharmacia's economic control system, which emphasized central cost control instead of LKB's decentralized profit centre concept, changed representation practice. This translated into further problems with continuing LKB's strategy to focus on long-term customer relationships with a strong service component in its exchange practice. The normalizing practices in LKB and BTG differed at the time of the acquisition (different strategies, different economic control systems), and the sequencing and speed of the merger sub-processes affected the ability to translate the motives of the merger into changes in exchange practice. Representational practice residing in the LKB organization was lost when LKB personnel left.

Merging production and R&D activities: This sub-process was initiated early but took longer time than expected. Analysing overlaps and complementarities between BTG and LKB as regards customers, products, techniques and on-going R&D projects was complicated. An information system aimed to be a tool in the merged firm's development towards an industrial flow organization, including customer order-based production and direct distribution, was not ready when a new R&D organization was presented. Thus, temporal profiles of changes in representational practices influenced the ability to change temporal profiles of exchange practice, e.g. changes in sequencing for customer order-based production and the timing of new product offerings.

8. Empirical Business Practice Phenomena for Research

Regarding organizational studies in general, Lee and Liebenau (1999) state that "...it would be more appropriate to call them *'time-related research'* rather than *'research on time'* because they do not deal with time *per se* as their main subject...We conclude that whilst there is much *'time-related research'*, there is little *'research on time'*(p. 1051).

We believe that there are some business interaction issues that would be particularly suitable for a future 'research on time' focus (as opposed to 'time-related research'), issues that would also be central to business practitioners. It can be argued that most of the business phenomena studied in IMP research are dynamic in nature. Hence, temporality in a broad sense is addressed in most empirical IMP studies. However, we have previously argued that there are probably certain empirical areas in which a focus on temporal aspects *per se*, such as temporal profiles and temporal orientations, could enhance our understanding of the business phenomena in focus. Six such empirical, business practice areas where temporality becomes important, and that we have ourselves some research background in, are the following.

First, in *merger* processes, stabilized temporal structures (as regards

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cross-cultural environments, the study of time in different cultures deserves greater effort from scholars in organizational studies as well as those in international business and management" (Lee and Liebenau a. a. p. 1052). In the wholesale industry case referred to above, we found that the timing and sequencing of strategic actions (like M&A, alliance formation, market entry) have effects on the shaping of markets.

Third, *business-cycle*-related variation in economic activities, such as the recent rapid economic downturn, could provide an example of how temporalities of different kinds come to the surface.

Fourth, often discussed but seldom researched, the conflicts between length of time horizons in the *financial markets vs. "real" markets* is an area for research on the performative role of time.

Fifth, also worth studying is the impact on business activities of the *implementation of information and communication systems* in business interaction processes. Lee and Liebenau (1999) suggest that shifts in time use could be studied in this research area. We believe that studies of the development of exchange practice when new ICT is introduced would draw attention to important time-related issues.

Sixth, obviously, the development of practices involved in *logistics* provides interesting applications for research on time, e.g., the network effects of reduction of lead times, of postponement strategies such as customer order-based production, of implementation of JIT, of Third Party Logistics, etc.

9. Some Research Issues

Business practice and construction of time are interrelated. Studies of business practices will contribute to a better understanding of dynamics, both as regards processes and as regards structures. For that purpose, interdependencies inherent in models, such as the ARA model in the IMP research tradition, and the market practice model in the ANT tradition, on which we have based our analysis, should be

studied with reference to the construction of temporal orientation and temporal profiles. As we stated above much of the research has been "time-related" rather than "research on time", i.e. it has primarily focused on exchange practice and some dimensions of the temporal profiles of activities. For a better understanding of temporality, we argue that knowledge about the temporal profiles of exchange practice is not enough. We also need to include temporal orientation, representational and normalizing practices and "networks of translation" that link the three types of market practice.

Business interaction is a central aspect of business life. Time in all its shapes is one of its fundamental attributes. As a consequence, temporal research should be integrated with the growing body of business interaction research. More specifically, we see a number of potential issues for future 'research on time' within the IMP tradition of business interaction research:

First, in *contemporary IMP research*, we see a (renewed) focus on its basic tenets and foundations. In a recent paper on business interactions, Ford et al. (2008) draw attention to the importance and the nature of business interactions, including their embeddedness in both temporal and spatial contexts. The authors argue that interaction can be interpreted as a "confrontation" process that occurs between companies. Over time, interactions may become structured and specialized, and interactions such as the coordination of deliveries or service events may become standardized or automated. Other interactions may involve considerable change, uncertainty and resource investment for those involved or be restricted to a specific time period.

We argue that temporality, in terms of the temporal profiles of business activities and the actors' temporal orientations, may have a central role in both types of processes, i.e., when interactions are being stabilized over time, and when interactions are changed and re-organized. There are many business situations where we can anticipate that interactions are "confronted", e.g. merger processes. It is likely that the temporal

profiles/structures that have been earlier stabilized in the different actors' business contexts before the merger (e.g., sequential structures of various production and distribution activities) will be central to these confrontations of interactions, together with the various actors' interpretations of them. Similarly, the processes of stabilizing new temporal profiles (including, e.g., the various actors' different ways of "measuring" and calculating time, and "differentiating" the time and resources spent on different activities) should also be a central part of business interactions, and hence a topic for more detailed research.

Second, and connected to the previous point, we suggest that this renewed IMP interest in the "micro dynamics" of business interactions fits very well with *the market practice perspective* previously presented. We suggest that by linking a narrow perspective of business interactions with a focus on market practices, including exchange practices as well as normalizing and representational practices, we may achieve a better understanding of actors' interpretations and construction of time, and of the ways in which various dimensions of temporal profiles become part of the structuring of business activities. With a focus on the micro-processes of business interactions, we may also learn more about the relativity of actors' temporal orientations. This also constitutes a major methodological challenge for future research. As argued elsewhere, the reliance on chronology and sequentiality in our business research narratives may make our accounts rather mechanistic in character (Kjellberg and Andersson 2003). It seems that a rich account of business activities, besides accounting for the succession of events chronologically, also has to account for the different time perspectives that actors have as they engage in business action: What are the future-oriented perspectives of the actors? How do actors make use of historical developments when they engage in business action?

Temporality is multidimensional; activities also span space; actors can be regarded as variable. Thus, there exist alternative accounts and analyses of network processes and structures. There are therefore important methodological challenges in linking IMP research issues with a market practice perspective, and an interest in temporality (Kjellberg and Andersson 2003). How should we collect practice data? How can we achieve, in business narratives, an impression of presence in business action. We might construct a succession of events, not through simple mechanical analogy or chronology, but by looking for credible links between business activities and by making actors' different temporal perspectives (past, present, future) heard. This could also be achieved by making our accounts of business interactions *polyphonic* (many-voiced), allowing us to integrate concordant and discordant processes and understand the intersection of different time orientations. We also need be aware of how "chronotope" in narratives (time-space integration) can serve as a means of defining and giving character to both actors and business interactions (ibid.). By looking at time and space and how they interconnect and are coordinated through the practices in business interactions, we can cover a broad range of important research issues. As mentioned above, the recent network picture (NP) research stream within IMP relates to our interest in business practice. NP research has put much more emphasis on space than on time. But there are also some consideration of time. An example is the model of network pictures developed by Ramos (2008) that includes a "time span" dimension that we can interpret as a temporal orientation dimension. Inherent in the NP concept is a focus on representational practice, with more or less explicit reference to exchange and normalizing practices.

Third, we suggest that our focal concepts *temporal orientation* and *temporal profile* require further study. In the present article, we have made a distinction between the activity-related temporal profiles and the more (social) constructivist temporal orientation variables. However, it can be assumed that also temporal profile variables such as "measurement" (of time) includes strong

elements of construction, which might surface in closer studies of actors' representational practices. For example, in their business interactions, firms might put considerable effort into comparing and coordinating various "time schedules" for production and distribution activities, a process that involves creating new temporal structures in joint business activities, but also some common pictures or representations of these activities. This would be an important area for future IMP studies.

References

Abell, D.F. (1978) "Strategic Windows", *Journal of Marketing*, Vol. 42, July, pp. 21-26

Abrahamsen, M.H., Naudé P. And Henneberg, S.C. (2009), "Sense making in Networks: Using Dottograms to analyse network changes", Paper presented at the 25th IMP Conference , Marseille

Ahrens,T. and Chapman, S.C. (2007), "Management Accounting as Practice", *Accounting, Organizations and Society*, 32, 1-27.

Ancona, D.G, Okhuysen, G. A. and Perlow, L.A. (2001) "Taking Time to Integrate Temporal Research", *Academy of Management Review*, Vol. 28, No 4, pp. 512-529

Andersson, P. (1996) *The emergence and change of Pharmacia Biotech 1959-1995. The power of slow flow and the drama of big events.* Doctoral Thesis, Stockholm: Economic Research Institute

Andersson, P. (1996a) *Concurrence, transition and evolution - Perspectives on industrial marketing change processes.* Doctoral Thesis, Stockholm: Economic Research Institute

Andersson, P. (2002) "Connected internationalization processes: The case of internationalizing channel intermediaries", *International Business Review*, 11, 365-383

Andersson, P and Mattsson L.G. (1999) "Timing of Strategic Actions", paper presented at *the 1999 IMP Conference*, Dublin, September 1999

Andersson, P and Mattsson, L.G. (2006) "Timing and Sequencing of Strategic Actions in Internationalization Processes Involving Intermediaries-A Network Perspective", In: Solberg, C. A. (ed.), Relationship between exporters and their foreign sales and marketing intermediaries, *Advances in International Marketing,* Volume 16, Elsevier Science. 297-326

Andersson, P. and Mattsson, L-G. (2007) "Market Practice and Construction of Temporality". paper presented at the 23rd IMP Conference, Manchester

Andersson, P. and Mattsson, L-G. (2009), "Temporal orientation and temporal profiles of network adjustments in times of economic recession", paper presented at *the 25th IMP Conference*, Marseille, September 2009

Araujo, L. (2007) "Markets, market making and marketing", *Marketing Theory*, Vol. 7 (3)

Araujo, L. and Kjellberg, H. (2009) Shaping Exchanges, Performing Markets: The Study of Market-ing Practices. *The Sage Handbook of Marketing Theory* 195-218.

Baraldi, E. (2003), *When Information Technology Faces Resource Interaction. Using IT Tools to Handle Products at IKEA and Edsbyn*, Doctoral Thesis, Uppsala: Uppsala University, Department of Business Studies

Barius, B. (1994) "Simultaneous marketing: a holistic

marketing approach to shorter time market", *Industrial Marketing Management*, Vol. 23, pp. 145–154

Bengtson, A. (2003), *Framing Technological Development in a Concrete Context – the Use of Wood in the Swedish Construction Industry*, Doctoral Thesis, Uppsala: Uppsala University, Department of Business Studies

Berger, P. and Luckman, T. (1966), *The Social Construction of Reality*. New York: Anchor Books

Bluedorn, A.C., (1986), *Primary rhythms, information processing, and planning: Directions for a new temporal technology*: Paper presented at the meeting of the International Society for the Study of Time; Dartington Hall, Devon, England

Bluedorn, A.C. and Denhardt, R.B. (1988), "Time and Organizations", *Journal of Management*, Vol. 14, No 2, pp. 299-320

Bowman, D. and Gatignon, H. (1996), "Order of Entry as a Moderator of the Effect of the Marketing Mix on Market Share", *Marketing Science*, 15 (3), pp. 222–42

Callon, M. (1992) "The dynamics of Techno-Economic Networks" In: R. Combs, P.Saviotti and V. Walsh (eds.) *Tecnology change and company strategies: economic and sociological perspectives* London: Academic Press, pp. 72-102

Callon, M. and Latour, B. (1981), "Unscrewing the Big Leviathan: How Actors Macro-Structure Reality and How Sociologist Help Them To Do So", in Knorr-Cetina, K.; Cicouvel, A.V. (eds.) *Advances in Social Theory and Methodology: Towards*

an Integration of Micro and Macro-Sociology, London: Routledge, pp. 277-303

Czarniawska, B. (2004) On Time, Space, and Action Nets, *Organization* Vol. 11 (6) 773-791

Easton, G. and Araujo, L. (1994) "Market exchange, social structures and time", *European Journal of Marketing*, Vol. 28, pp. 72-84.

Finch, J.H. and Geiger, S. (2008) Industrial Sales People as Market Actors- A Case Study. Paper presented at the 24th IMP Conference, Uppsala

Ford, D. (1980) "The development of buyer-seller relationships in industrial marketing" *European Journal of Marketing Vol.* 14, Nos. 5/6 pp. 339-354

Ford, D. (ed.) (2002) Understanding business marketing and purchasing. An interaction approach , 3rd ed., London: Thomson Learning

Ford, D. and Redwood, M. (2005) "Making Sense of Network Dynamics through Network Pictures: A Longitudinal case Study", *Industrial Marketing Management*, Vol.34, pp 648-57;

Ford, D., Gadde, L-E., Håkansson, H, and Snehota, I. (2003) *Managing business relationships* 2nd ed., Chichester: John Wiley

Ford, D. Gadde, L-E., Håkansson, H., Snehota, I. and Waluszewski, A. (2008), "Analysing Business Interaction" (IMP working paper), http://www.impgroup.org/uploads/papers/6707.pdf

Gadde, L.E. (2000), 'From Marketing Channels to Differentiated Networks-Distribution Dynamics in a Historical Perspective'. In Dahyia, S. (ed.) *The Current State of Business Disciplines*

Spellbound publications, 2441-2462.

Gadde L-E. and Mattsson, L-G. (1987), "Stability and change in network relationships", *International Journal of Research in Marketing* No 4, pp. 29–41

Håkansson, H. (ed.) (1982), *International Marketing and purchasing of Industrial Goods,* Chichester: John Wiley

Håkansson, H., Ford, D., Gadde, L-E., Snehota, I. and Waluszewski, A. (2009) *Business in Networks,* Chichester: John Wiley

Halinen A. and Törnroos J-Å. (1998) "The role of embeddedness in the evaluation of business networks", *Scandinavian Journal of Management* vol.14 no 3, pp. 187-205

Hedaa, L. and Törnroos, J-Å. (2002), "Towards a theory of timing: Kairology in business networks",. In: Whipp, R., Adam, B. and Sabelis, I.(eds.) *Making time. Time and Management in Organizations.* Oxford University Press

Henneberg,S., Mouzas, S. and Naudé, P. (2010) Sense-Making and Management in Business Networks - Some Observations, Considerations and a Research Agenda", *Industrial Marketing Management,* (Forthcoming)

Hertz.S. (1998) "Domino effects in international networks". *Journal of Business to Business Marketing,* 5 (3), pp. 3-31

Hinings, C. R. and Greenwood, R., (1988) *The Dynamics of Strategic Change,* Oxford: Basil Blackwell

Hoholm, T. (2009) "The contrary forces of innovation. An ethnography of innovation processes in the food industry", Doctoral

thesis, BI Norwegian School of Management

Johanson, J. and Mattsson, L.G. (1985) "Marketing Investments and Market Investments in Industrial Networks", *International Journal of Research in Marketing,* (2), pp. 185-195

Johanson, J. and Mattsson, L.G. (1992) "Network positions and strategic action", In: Axelsson, B. and Easton, G.(eds.) *Industrial Networks. A new View of Reality* London: Routledge, pp. 205-217

Johanson, J. and Vahlne, J-E. (1977), "The internationalization process of the firm – A model of knowledge development and increasing foreign market commitment", *Journal of International Business Studies,* Vol. 8, No 1 (Spring/Summer, pp. 23-32

Kavanagh, D. and Araujo, L. (1995), "Chronigami: Folding and Unfolding Time", *Accounting, Management and Information Technologies,* Vol. 5(2), pp. 103-121

Kerin, R. A. Varadarajan, P. R. and Peterson, R.A. (1992) "First-mover advantage: A synthesis, conceptual framework, and research propositions." *Journal of Marketing,* Vol. 56(4), pp. 33-52

Kjellberg, H. (2001) *Organizing distribution: Hakonbolaget and the efforts to rationalise food distribution 1940-1960.* Doctoral Thesis, Stockholm: Economic Research Institute

Kjellberg, H. And Andersson, P (2003), "Where is the Action? The Reconstruction of Action in Business Narratives", in: Woodside, A. (ed.), *Evaluating Marketing Actions and Outcomes, Advances in Business Marketing and Purchasing,* Vol. 12.

Kjellberg, H. and Hagberg, J. (2009) "Who's doing what? Exploring market practices and practitioners", paper presented at *the 25th IMP Conference in Marseille*, September 2009

Kjellberg, H and Helgesson, C.-F. (2006) "Multiple versions of Markets: Multiplicity and Performativity in Market Practice", *Industrial Marketing Management*, 35 (7): 839-55.

Kjellberg, H. and Helgesson, C.-F. (2007) "On the Nature of Markets and their Practices", *Marketing Theory*, 7, 13-162

Lee, H. (1999), "Time in information technology: Monochronity, polychronity and temporal symmetry", *European Journal of Information Systems* No 8, pp. 16-26

Lee, H. and Liebenau, J. (1999), "Time in Organizational Studies: Towards a New Research Direction", *Organization Studies*, 20/6, 1999, pp. 1035-1058

Liljegren, G. (1988), *Interdependens och dynamik i långsiktiga kundrelationer*, Doctoral Thesis, Stockholm: Economic Research Institute

Madsen, K.T. and Servais, P. (1997), "The internationalization of born globals: An evolutionary process", *International Business Review*, Vol. 6, no 6, pp.561-583

Marknadsdomstolens avgöranden 2005:7, Konkurrensverket mot Norsk Hydro m.fl.

Marshall, A (1890) (1961, p.vii). Quoted in the introduction of: Winston, G., *The timing of economic activities - Firms, households, and markets in time-specific analysis*, Cambridge: Cambridge University Press, 1982

Mason, K. (2008) "Markets, Business Models and the Growth of the Firm". Paper presented

at the 24 IMP Conference, Uppsala University

Mattsson, L.G. (2005) "Managing in Markets as Shaping Markets through Interacting with Market Theories and Market Practice". Paper presented at the 2nd IMP Asia Conference, Phuket

Medlin, C. (2002), "Interaction: a time perspective", paper presented at *the 18th IMP-conference in Perth*, Australia, 2002

Miller.P (2001) Governing by Numbers: Why calculative Practices Matter *Social Research,* Vol. 68, No.2 ,(Summer) 380-396

Pieters, R.G.M. and Verplanken, B., (1991)"Changing our minds about behavior", in: Antonides,G., Arts, W.,and van Raij, W.F.(eds.) *The Consumption of Time and the Timing of Consumption-Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, pp. 63-67

Ramos, C. (2008) , "Developing Network Pictures as a Research Tool:Capturing the Output of Individuals' Sense-making in Organizational Networks," PhD Dissertation, University of Bath

Smallwood, J. E. (1973), "The Product Life Cycle: A Key to Strategic Marketing Planning", *Michigan State University Business Topics* 21 (Winter) pp. 29–35

Sztompka, P. (1993), *The Sociology of Social Change*, Oxford: Blackwell

Törnroos, J.Å. and Hedaa, L. (2005) "The role of intuition. time and timing in developing business relations: A research note", Paper presented at *the 2nd IMP Asia Conference*, Phuket, December 2005

Warde, A (2005), Consumption and Theories of Practice *Journal*

of Consumer Culture Vol. 5 (2), 131- 153

Wärtsiläs bokslutskommuniké 2008 www.Webfinanser.com 2009-01-30

Wedin, T. (2001). *Networks and demand. The use of electricity in an industrial p*rocess. Doctoral Thesis, Department of Business Studies, Uppsala University

Vesey, J.T. (1992), "Time-to-Market: Put Speed in Product Development", *Industrial Marketing Management*, Vol. 21, Issue 2, May 1992, pp. 151-158

APPENDIX: Temporality in marketing and strategy literature

Temporality appears in marketing and strategy literature in different shapes. Below, we comment on some such approaches, linking to our chosen temporal dimensions discussed in the article.

1. "First mover" and "Follower strategies"
Research on the advantages and disadvantages of so-called *first mover* and *follower strategies* provides examples of competitor-orientated models. For example, international marketing research on new market entry strategies often bases its discussions on theories and the considerable body of previous research on order-of-entry modelling. In a similar fashion, order of entry assumptions form the basis for much research on new product and brand positioning in both established and new markets. There are also examples of how both these research traditions have been combined (Bowman and Gatignon 1996). Kerin et al. (1992, p. 46) conclude: "The overall magnitude of positional advantages accruing to the first mover depends on the comprehensive competitive strategies employed by the pioneer and followers, in concert with timing." However, they continue: "Furthermore, market pioneering is not a normative strategic behaviour conducive to superior performance for all firms, it can only provide opportunities for gaining positional advantages. Actual competitive advantages depend on product-market contingencies and the actions of the first mover and later entrants" (ibid. p. 48). This model explicitly refers to the *timing* of strategic actions and implicitly to *speed* in a market with interdependent actors. The interdependence, however, is purely due to competition and the model is silent, or implicit, as regards *duration, sequencing* and *coordination*.

2. "Sequence models" in Marketing and Market Strategy
A more implicit and taken-for-granted form is when temporal dimensions become part of *sequence models*, describing the steps through which different types of marketing activities are and/or should be taken. Examples of normative models are provided by textbook treatments of product development, market entry and internationalization. Another type of sequence model, more descriptive and explanatory than normative, is the "Uppsala school of internationalization", which explains sequentiallity in spatial extension and resource commitment (Johanson and Vahlne 1977), and the studies of "Born Globals", which describes and explains the high speed of the extension process (e.g., Madsen and Servais 1997). *Timing* and *coordination* are at best implicit in the sequence models, while *duration* and *speed* are more in focus. Interdependence implicitly refers more to cooperation than to competition. An example of sequencing of strategic actions for internationalization is how production investments and market investment should be timed and coordinated. Production investments that increase supply capacity need to be matched by market and marketing investments (Johanson and Mattsson 1985) that make it possible to exchange products through relationships to distributors and end-users. Resources that have been committed for distribution and sales in foreign markets cannot be utilized for growth and market penetration if supply capacity, e.g., depending on delays in production investments, is lacking, and vice versa.

3. Marketing and "The Product Life Cycle"
Another example of temporal profiles, especially *speed, duration* and *sequencing*, in marketing analysis is provided by the *product life cycle* concept. Smallwood (1973) argues that the product life cycle can be divided into a set of stages or phases with certain characteristics (introduction, growth, maturity, decline, termination) and that a company may adapt its sales forecasting, advertising, pricing policies, product planning, and distribution to these phases. "The maturation of production technology and product configuration along with marketing programs proceeds in an orderly, somewhat predictable course over time with the

merchandising nature and marketing environment noticeably similar between products that are in the same stage of their life cycle" (ibid. p. 35). Important for the rather implicit timing considerations, the cycle may be of long or short duration and develop with high or low speed. In this model, interdependence in the market is mostly on an aggregate rather than individual actor level. One implication, that has not been dealt with adequately in the literature, is that also here, for the individual supplier, supply capacities need to match the capacities to reach end-users. This is an aspect of *coordination.* We thus have a link between the sequence models and the life cycle models that can also be exemplified by strategies of internationalization. Several temporal aspects are interconnected with the periodicity of strategic market change processes (Hinings and Greenwood 1992). Changes in the speed of the change processes, and alterations in the duration (and repeatedness) of processes are also connected to the linearity of strategic changes. It concerns the directional consistency, an aspect of coordination, of the change processes over time:

> "...one conception of change would anticipate a cumulative momentum or "roll" from one (strategic) archetype to another. An alternative conception would perceive the organization as pulled and tugged between competing interests and, as a result, characterized by disjunctions, oscillations and temporary reversals or delay in the overall movement towards a different archetype." (Ibid. p. 107)

4. "Time to Market" Ideas
Related to both the "first mover" and the product cycle analysis, the concept *"time to market"* appeared in managerial texts during the first half the 1990s. The underlying argument was that by increasing the speed of the product development and market launch processes, companies could gain a competitive advantage. Increased *speed* and shorter lead times (shorter *duration*) were important temporal dimensions put in focus. Vesey (1992) stated that "time-to-market is becoming a highly competitive issue for manufacturing companies and in the 1990s it may be the single most critical factor for success across all markets. A new group of accelerating competitors is emerging that thinks in terms of 'speed-to-market' " (Ibid. p. 151). Success in managing this is dependent on concurrent engineering, shortened product life cycles, and technological advances in information processing. We might add that such concurrent processes involve not only the focal firm, but also suppliers, partners and end-users, and are therefore an important aspect of coordination. In a similar fashion, Barius (1994, p. 145) argues that shorter lead times are achieved through parallel and integrated engineering activities, which increases the speed to market. Hence, concurrence of various actions (Andersson 1996; 1996a) is an important means to shortening the time to market; also involved here are speed, duration and *timing.* Different strategic actions – sequences of events forming episodes initially connected to a specific group of actors – become each other's context. Timing becomes closely connected to aspects of concurrence and coordination between and within *sequences.* Interdependencies are made explicit both as regards cooperation and competition.

5. "Strategic Windows"
The idea of *"strategic windows"* is closely related to temporal profiles, explicitly in relation to *timing* and implicitly in relation to *speed, duration* and *sequencing.* It is argued that a specific strategic action can be successfully undertaken only if resources (internal and external) are available. However, the resources are only available during certain periods of time. Abell's original article (Abell 1978) highlights the importance of anticipating and responding to changes in the marketplace. This is an aspect of *coordination.* Abell argues that marketing planning needs to be based on predictions of future patterns of market evolution and assessments of the firm's ability to deal with change. "Short of entry and exit, the allocation of funds to markets should be timed to coincide with the period when the fit between the firm and the market is at its optimum" (ibid.). Interdependencies relate to cooperation (availability of external resources) and less explicitly to competition.

Even if the majority of the approaches discussed above (first mover advantage, product life cycle, time to market and strategic windows) are more or less explicitly based on the

Analysing Business Interaction[1]

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Abstract

This paper develops a conceptualization of the nature of business interaction drawing on the empirical work of the IMP Group. The paper argues that interaction is the central process within the business landscape. The paper interprets business interaction as a process that occurs between specific companies and which changes and transforms aspects of the resources and activities of the companies involved in it and the companies themselves. *Thus the central argument of the paper is that business activities, actors and resources take their form and are defined by the interactions in which they are involved.* The substantive nature of business interaction indicates that each interaction process will take a unique form in time and network space. This uniqueness has important consequences both for the structure and processes of the economic landscape and places interaction at the heart of business development.

1. The Idea Of Business Interaction

The idea that interaction between individually significant actors is a primary characteristic of the business landscape has been a central observation of IMP studies. (eg Håkansson, ed, 1982, Håkansson and Snehota, 1995, Ford et al 2003, Håkansson et al 2009). The implication of this observation is that it is not so much what happens *within* a single company but what happens *between* that company and others that constitutes the core of business. IMP empirical research has lead to the conclusion that business activities, resources and actors take their form and are defined by interaction. The idea that interaction is central to economic life is common throughout the social sciences. However, there is an important difference in how interaction is approached in theories influenced by mainstream economic thinking and the view that has emerged from IMP research[2]. Approaches colored by the traditional assumptions of the market imply that interaction is a mechanism of exchange between independent actors consisting of discrete, frictionless and generalisable events (Wilk, 1996). Thus, market theory contributes to the common understanding that exchange takes place within "a system that not only regulates itself but also regulates ourselves, a process that shapes and forms people whose relationships with one another are circumscribed and reduced by the market" Marglin (2008, p. 2).

IMP empirical studies suggest a view of interaction which is far away from this simple mechanism. The basic difference is that the interaction that has been observed in these studies has a

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[1] Earlier versions of this paper were presented at the Annual IMP Conference, Uppsala, September 2008 and as Chapter 3 in Business in Networks, H Håkansson et al, John Wiley, 2009.

[2] A number of these studies may be found at www.impgroup.org.

substance.[3] The substance of interaction can be described in several ways, but it

of projects together and there may be one or more continuing at any one time; The interaction may have become quite structured and specialized involving specifically designed offerings and procedures by either or both of the companies; Some parts of the interaction such as the coordination of deliveries or service events may have become standardized or automated. Other parts may relate to a particular problem of one or more of the participants or be project-related and involve considerable change, uncertainty and resource investment for those involved or be restricted to a specific time period. Other parts may involve detailed negotiation and development to integrate different activities and resources or even to subsume the actors into a joint organization or company. The interaction processes may be sufficiently critical to one or both of the companies from a volume, profit or technological perspective that they are closely monitored and systematically evaluated by them.

Each of these relationships is unique. In each of them the interaction process is very "heavy" and will have involved and changed substantial aspects of the activities and resources of each of the companies. These changes affect this particular interaction and also others in which the companies are directly involved and others at greater distance across the network. The total investments of the two companies in these continuing interactions are considerable and their effects are highly significant. A limited number of these interaction processes often dominate a particular company's operations and can realistically be said to have *formed* that company.

In contrast, the business world also contains many much more limited interaction processes between companies that may be either ad-hoc or short-term. Some of these processes may be intense and involve important problem solving or leave significant imprints on the companies concerned. Other interaction processes may be less significant or intense but may still be valuable collectively. For example, they may involve a supplier and many of its customers that only buy occasionally, but with whom the interaction can be standardized to reduce costs (Johnsen and Ford, 2008). Another example of ad-hoc interaction could be in the case of a supplier who is able to contribute a specific technical solution that is crucial for a particular customer (Bengtson and Håkansson, 2007).

There are also a large number of interaction processes, which involve more costs than benefits for one or both of the counterparts, despite (or because) of the efforts of those involved Håkansson and Ford, 2002. Others may be in the early stages and may or may not develop into long-term and important interaction processes (Ford, 1980; Ford and Rosson, 1982). It is often difficult to evaluate these developments and most companies have to engage in a large number of such interaction processes just in order to find the few that are worth developing further (Buttle and Naude, 2000).

Because interaction is a process over time, it is likely that connections will develop between different interaction processes in which the two companies are involved. These connections may or may not be systematic or conscious. But their outcome is that participation in a single interaction process with a single counterpart relates a company to a set of many others about which they may know little or nothing. In this way, business interaction is a process in which ideas, solutions, technologies and problems and interdependencies are transferred across a network of companies (Mattson 1989, Håkansson and Johanson 1987 and 1993; Håkansson and Snehota 1989).

Interaction between companies enables each to take advantage of an economic world characterized by continuous change, but with many potentially cooperative or at least mutually beneficial counterparts. Continuing interaction with others provides

some kind of stability in a world of unpredictable outcomes and unknowable influencing factors. In this way, interaction is both a dynamic and a stabilizing force.

3. An Initial Conceptualisation Of Business Interaction

We will use three simple diagrams to develop an initial conceptualization of business interaction (Figures 1, 2 and 3). A first step will be to make a distinction between the ideas of interaction and of exchange. The idea of exchange is based on the transfer between actors of *unchanging* entities; products, services or money. Exchange can take place without there being any significant intervening process between the counterparts. A simple example of exchange occurs when someone buys a newspaper from a street vendor, the exchange of coin for paper involves no alteration to either of the exchanged items and the only interaction is a polite "please" and "thank you". This idea of exchange is represented in Figure 1. Thus we can interpret exchange as a mechanism that connects the actors for the time of the exchange, but which does not have any content of its own. In general terms this mechanism is discussed as the "market mechanism". The functioning of this mechanism without any independence of its own makes it a very powerful theoretical construct. It assumes that the parties to the exchange have all necessary knowledge and that the objects exchanged are unchanged in the process.

However, the typical process that we have observed in the business landscape and illustrated above is rather more complex than that of exchange. This is because there seems to be some sort of change process that occurs *between* business actors. This process and its content may from an analytical point of view be separated from the two actors themselves. This separated interaction process is pictured by the diagram in Figure 2.
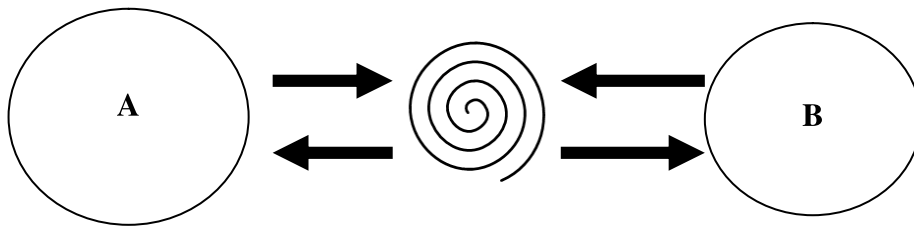

Figure 1
Exchange

Figure 2
Interaction

This way of conceptualizing interaction assumes that it is a process that occurs *between* actors over time. The interaction process derives its unique content from the two involved actors but develops in a way that is not fully controlled by either of them. In this way and over time, interaction changes what each actor contributes to and receives from the other and also changes the actors themselves. Figure 2 may be interpreted in the following way:

- The spiral at the centre of the figure is a representation of the process of interaction. The raw material for this process is the respective inputs of the two actors. But it is from each unique process of interaction that products, services, deliveries, adaptations, developments and payments all emerge, each with their particular characteristics and timing.

- The arrows *to* A and B *from* the spiral represent A and B's interpretation and assessment of what has emerged from the interaction and what has been their counterpart's intentions and approach to it. These interpretations relate to each actor's assessment of its own approach, to their problems and aspirations, to their resources and activities and to their other interactions and their positions in the wider network.

These interpretations and assessments of their interaction form the basis for the actors' approaches to further interaction. The arrows *from* A and B *to* the curve represent these approaches. These approaches may take many forms, such as in a change to the quality of a service delivery; the effort (or lack of it) that is devoted to a product adaptation; the stance taken in a negotiation; the timing of a payment or the commitment to a joint development. Some of these approaches to interaction may be in line with a clear intent or strategy by one or both of the companies. But some or all may be unconsidered, inconsistent, or be the result of inertia and simply continue the status quo. These approaches may be oriented towards a single episode of interaction. They may be unique to a particular counterpart or be part of an attempted common approach to a number of counterparts by either of the companies. It is likely that there will be inconsistency in the approach to interaction with a single counterpart, both between different individuals in a company and by that company over time (Ford et al 1988).

The spiral indicates that interaction is an evolving process. It has no single identifiable outcome or end-point because each output is an input into the continuing process and will be interpreted differently by each counterpart
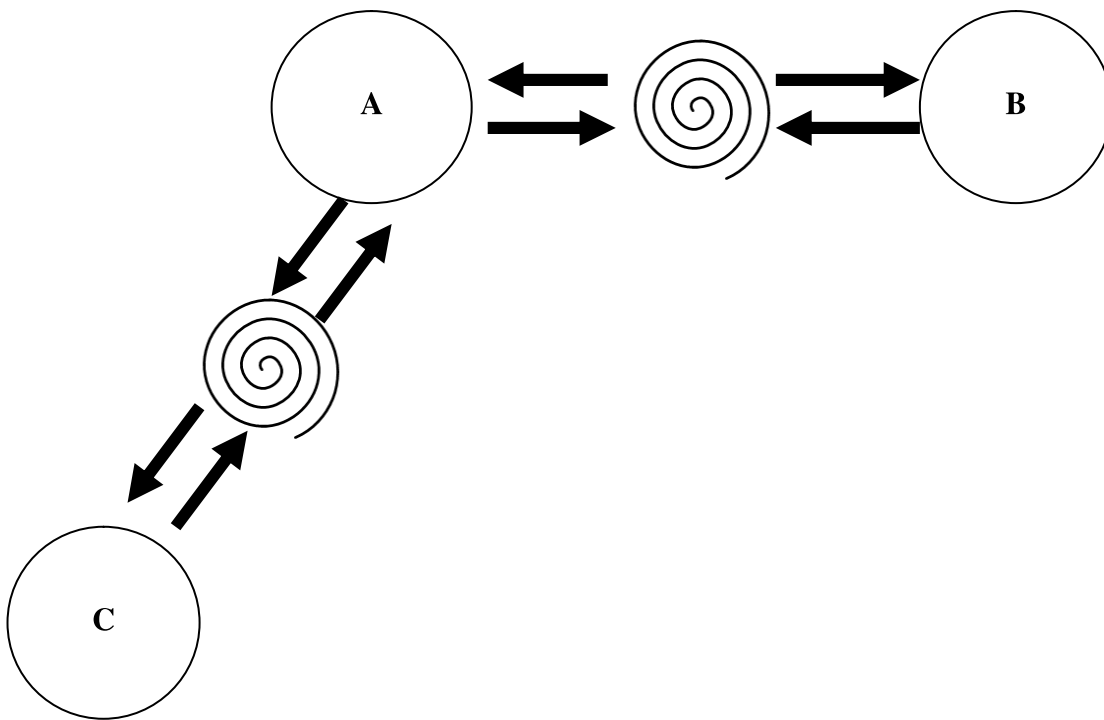
Figure 3
Interaction Between Three Counterparts

involved in the interaction and by others. Interaction has both immediate and long term effects and current interaction is affected by what has taken place previously and by the perceptions and expectations of future interaction held by the actors. The content of interaction is always produced by more than one party. The two arrows that separate A and B in Figure 2 are intended to show that the connection between the approach of each actor to their interaction and to its outcomes is beyond their individual intentions or control. Instead, the interaction between business actors is influenced by their approach or intentions and by the process of interaction itself. This creates an outcome for each actor which in turn will be interpreted by both counterparts.

Each actor probably has a view of the activities and resources they wish to contribute and the approach they wish to take to the interaction. Each probably also has a view of what they want to gain from the interaction. But there is no reason to assume that the wishes of each will be the same in either respect. Each actor has some initial control over their own activities and resources. But the form that these activities and resources subsequently take and how they are delivered to and received from the counterpart is affected by the way that they interact with those of that counterpart. Interaction is an intervening variable between the activities and resources of the two companies as they come together.

Successive interaction over time can lead to outcomes that mean that the activities and resources of the actors and the actors themselves are *transformed* through interaction.

The process of interaction may occur as a routine or without conscious effort or planning by any of the actors involved. In contrast, it may involve

extensive planning, development, negotiation, bargaining or conflict. But irrespective of how the process develops, the interaction of resources, activities and actors means that no single actor is or could ever be in control of what emerges from its interactions or be independent in the world of business.

No actor ever interacts with just one counterpart. The typical situation is that interaction is a more or less continuous problem solving process in which more than two actors are involved as portrayed in Figure 3. Each actor will be taking part in this extended process in order to address their individual problems and each dyadic interaction will be affected to a greater or lesser extent by those with which it is connected.

This leads us to the following initial conceptualization of interaction:

Interaction is the substantive process that occurs between business actors through which all of the aspects of business: material, financial and human and all of the elements of business: actors, activities and resources take their form, are changed and are transformed.

One important consequence of this conceptualization is that business interaction should never be seen simply as communication or negotiation, even if these may be important aspects of it. The greater the involvement of a company in a particular interaction, the greater will be the effects on its own activities, on its resources and on the company itself. Interaction is a cumulative process over time. Hence, the characteristics of actors themselves and of their activities and resources are as much an outcome of interaction as they are an input into it. The actors, activities and resources of business are defined by interaction. This view of business interaction has been refined in the Actor-Activities-Resources Model (ARA-model, Håkansson & Johanson, 1992)

4. The Process And Outcomes Of Interaction: The A-R-A Model.

The ARA Model provides a conceptual structure for the process and outcomes of interaction, based on empirical studies in the IMP research stream[4]. The model suggests that the outcomes of an interaction process (or the content of a business relationship) can be described in terms of the three layers: Actor Bonds, Activity Links and Resource Ties between the counterparts (Håkansson and Snehota, 1995). The model also suggests that each of these three layers are inter-connected and each affects and is affected by the wider constellations of resources, patterns of activities and webs of actors of which they form part.

The Actor Layer: This layer relates to the interpersonal bonds that develop between individuals through their interaction. This layer reflects the degree to which the actors see, know and feel close to each other; how they trust, appreciate and influence each other and become mutually committed (Wilson & Jantrania 1994, Wilkinson & Young 1994, Huemer 1998). Bonds that arise between actors may be more or less strong and will influence to varying extent what the individuals involved in a process perceive as possible and feasible directions for that interaction. Actor bonds are important for the "learning" and "teaching" of counterparts about opportunities and solutions, as pointed out in some of the studies of learning in relationships (Dahlquist 1998; Håkansson & Johanson 2001; Håkansson and Johanson, 1987; Håkansson, Havila and Pedersen, 1999; Håkansson, Huysman and von Raesfeld Meijer,2001; Håkansson and Johanson 2001.

The Activity Layer: This layer relates to the integration and co-ordination of activities that may develop between actors. Various activities such as production, logistics, administration, deliveries, information handling may become integrated and linked together. In this way, the two companies' activity structures can become more or less

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[4] Håkansson and Snehota (1995) provides case illustrations of the various elements within the ARA Model.

systematically and tightly linked. The relative strength of specific activity links, or their absence, in a business relationship has been shown to have substantial economic effects on the actors involved (Richardson 1972, Dubois 1998, Torvatn 1996).

The Resource Layer: This final layer relates to how the two actors' resources may become adapted and more or less mutually tied together as their interaction develops. Specific mutual adaptations may concern tangible resources such as physical items of plant or equipment, but may also include intangible resources such as knowledge. Resource ties arise as the two parties in a relationship confront and mutually adapt their resources over time (Hallen et al 1991, Waluszewski 1990). Resource adaptations can make resource usage more efficient. But more importantly, the systematic confrontation of resources also underlies the development of new joint resource combinations in the process of innovation (Håkansson 1987, 1989, Biemans 1992, Lundgren 1995, Laage-Helman 1997, Holmen 2001, Håkansson & Waluszewski 2002, 2007).

The three layers of content of buyer-seller relationships are not independent and there is important interplay between them: Activity links may limit or facilitate resource adaptations; resource ties may limit or favor the possibility of activity co-ordination and actor bonds may open up the possibility of developing activity links and resource ties.

The ARA-model also takes into account another aspect of business relationships, namely that actor bonds, resource ties and activity links do have consequences that go beyond the particular relationship in which they arise. They result from and have effects not only on what is happening *between* the actors but also *within* the actors themselves and *within* their other relationships. The content of a particular relationship can be used by the counterparts to affect their organization, their use of resources and the structuring of their activities. Conversely, the content of the relationship also reflects the characteristics of the two actors in the same dimensions.

Additionally, third parties to the relationship may also take advantage of developments within the relationship. For example, other actors that have relationships with the two actors involved in a relationship and the broader network of businesses can affect and be affected by the ways in which the content of a relationship develops (Easton & Lundgren 1992, Blankenburg-Holm et al 1996, Pedersen et al 2008). Every relationship is a more or less important connection in a number of webs of actors, constellations of resources and patterns of activities that stretch across many other businesses (Håkansson and Snehota 1995).

Interaction and development

The existence of interaction means that it is not enough to look *inside* a business company for explanatory factors in the development of that company. If we want to understand the development of business actors, or their activities, or their resources, or the economic logic between these elements then we have to understand the interactions in which those actors, activities and resources are currently and have previously been involved. This means that if we wish to examine business in an interactive world then our unit of analysis must be the specific process of interaction, how it occurs *between* particular combinations of companies and its outcomes in terms of Activity Links, Resource Ties and Actor Bonds. Similarly an analysis of the development of business in an interactive world must centre on the development of specific interaction processes rather than on the apparent changes that occur in any single company. These company changes are likely to be more the outcome of those processes than the determining factor in them.

5. Parameters Of Interaction: Time And Space[5]

We have emphasised in this paper that business interaction is a continuing process of evolution rather than

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[5] This section is based on Håkansson and Ford (2002).

a series of discrete or independent events. Each interaction process affects and is affected by others, but each process is unique in network space. We can use the two variables of time and space to examine the characteristics of interaction processes in more detail, as follows:

Interaction and Time

Time largely defines the nature of interaction as a process in which sequential events are related to each other. But interaction is difficult to delimit in time. Interaction can have no easily identifiable beginning or end. No matter when or where we look at interaction, what we see is the continuation of things from before. This applies just as much to the interactions surrounding the start-up of an *apparently* new company as it does to the interactions involved in the latest delivery of a continuously purchased component to a long-established customer.

A consequence of the importance of time when analysing business interaction is that there is no such a thing as a new network. If we recognise the existence of a particular network for the first time, then we are simply isolating part of a pre-existing and wider network. Similarly, neither a new actor nor a newly developed relationship creates a new network. Instead, new actors and new relationships always emerge from something that pre-exists them and there is always a history behind them. Each new actor or relationship is always related to others that already exist. A new actor will have some, but probably a rather limited effect on the *existing* network. The new actor's interactions with others will be affected by and will affect the continuing and future interactions of those around it. A useful analogy here is of the introduction of a new product into a supermarket. The supermarket is not constructed around the new product, nor is there empty shelf-space waiting for it. Other existing products will have to move sideways to accommodate it, although the effect on each one may be small. Some of these existing products may benefit and others may lose because of the entry of the new product. In the same way a new

actor's interactions will affect those around it, but those interactions will be built upon the previous experiences of those involved in the interaction and those of the others around it. Each actor brings its own baggage from the past. This phenomenon is familiar from technological studies where path-dependence has been identified as a key issue, but here that path-dependence is within a wider context. Path dependence means that the analysis of interaction must always look behind current patterns of interaction to what has preceded them and framed their evolution.

In the same way, it is difficult to identify the final completion of any interaction. Each interaction will affect subsequent interactions between the participants and others. There are no end-results in business! The problem of predicting future directions is multiplied because the characteristics of each interaction can affect that subsequent interaction in multiple directions.

Another problem in the analysis of interaction is that it is not evenly distributed over time. Interaction is likely to be "lumpy", so that there are periods of more intense *episodes* of interaction than others. It is also difficult to characterize what defines a single episode of interaction or to find a neat way to identify its boundaries or when it starts or finishes. There is likely to be an important element of interdependence over time between single episodes, but these episodes may also be very important to understand as units in themselves. Many of the preoccupations of managers are in trying to manage effectively within a particular episode, whether that episode is defined in the form of a meeting, an order, a delivery or a financial transfer. One way for analysis to cope with "lumpy" interaction is to identify "significant events" or "critical incidents". This approach clearly provides historical information, but has similar boundary problems to those of "episodes". More importantly, the idea of critical incidents may also involve assumptions about the causality of outcomes that are likely to be unwarranted in a situation of complex, multi-party interaction.

The interaction between two actors will evolve over time through experience and learning. But interaction at any one point in time is not pre-determined by what has happened before. Interaction will also be affected by the concerns or problems of the actors as they arise and by influences on them from their parallel interactions or those from elsewhere in the network. However, an interaction episode is not just an island of significance in a sea of ordinariness, if for no other reason than that its significance will be impossible to assess at the time. Most interaction episodes are each relatively insignificant among many others, such as deliveries, payments, communications etc. These episodes may be interrelated in an obvious or in a confusing way, but taken together they comprise the relationship between the participants. A single episode will affect each of those involved in it differently. A single episode is also likely to be interpreted differently by each of them and by others around them.

A series of episodes will in many cases simply be continuous or "normal", such as a normal flow of orders, normal terms of payment, normal products etc. These episodes are part of everyday life for those involved in them and existing business relationships and routines play an important role in providing a basic structure to business activity. Most interaction episodes are not critical incidents. Many are not significant in themselves at all, although each may include some new element. But these interaction episodes, together with various actors' interpretations of them, define the life of the individual or corporate actor.

Each single element of newness in an interaction episode simultaneously restricts and expands the opportunities for future interactions for both of the participants in it and for others. In fact each single element of newness may have *multiple* sequential effects in *many* directions. These multiple processes of restriction and expansion produce at least two problems for both actors and analysts:

The first problem is that it is difficult to make sense of the alternative possible outcomes of interaction. Thus, actors may not be aware of how their options may have been broadened or narrowed by some outcomes: The multiplicity of simultaneous interactions both inside and outside of any dyad means that it is effectively impossible to construct distinct causal links between particular episodes and outcomes in interaction. This problem makes it impossible to predict the direction of future interaction and its effects on individual companies or to attribute causality for a current business situation – success or failure - to a specific action in the past.

The second problem for the actor is how to anticipate and cope with the chain of events in interaction. It is difficult for both actors and researchers to understand interaction because things happen in a causal, but unknown sequence. Also, each actor will have a view of a preferred or probable sequence and will interact today with an eye on subsequent interaction in the future. These subjectively preferred or predicted sequences mean that a researcher seeking to explain interaction over time will have to be interested both in the evolving views and pictures of the actors as well as how activities and resources are actually evolving.

We will close this section by relating our treatment of time to four ways in which researchers have conceptualised the problematic characteristics of interaction over time and of the ways that subsequent interaction episodes are related to each other:

1. The easiest way to cope with the issue of time is to ignore any effect between episodes by assuming that each episode or exchange is independent of all other episodes, as is done within transaction-costs economics (Williamson and Ouchi, 1981). On this basis, each interaction episode may be analysed and managed separately. The assumption of independent exchange situations means that the best total result for the actor will appear if each situation in itself is handled in the best way.

2. An alternative approach is to consider that episodes are related together over time in a process of development that comprises a life cycle consisting of a number of different stages. This approach sees episodes as part of a process of learning, adaptation, commitment and distance-reduction over time. However, this and similar stage models tend to infer that the development of relationships is a rather deterministic, unidirectional and linear process. This does not relate well to the much more complex empirical reality of change, decay or re-development (Ford et al 2003).

3 A third way is to assume that the process of interaction over time has a cumulative effect. One way of doing this is to consider the economics of interaction over time as an investment process. In this interpretation, the companies are considered to be investing in each other through their relationship. One consequence of an investment view of interaction over time is that these experiences and processes must be taken into account when the value of a company is assessed. An investment view also indicates that a company's activities should be steered in ways that develop and capitalize on these investments (Johanson & Wootz 1986). The investment logic puts an emphasis on long –term relationships since initial costs can only be balanced by revenues generated over time. Such a long-term view of business processes is advocated also by researchers in related fields.[6]

Interaction and Space

The unique substance of each interaction process positions the process and the actors, activities and resources within it in network space. The relative position of an interaction process has a number of dimensions of which its geographical location is just the most obvious. Other dimensions of the position of an interaction process include the particular knowledge that is activated and produced within the process; the specific resources that are mobilized and affected and the activities that are performed; the form and intensity of their interaction and the benefits and costs that each accrues through their interaction (Johanson & Mattsson, 1988, Henders 1992).

A consequence of their relative positions in space is that we cannot explain what happens in a single interaction process in isolation from those others with which it is connected. Nor can we realistically describe an interaction process except as relative to the other interactions that may exist in parallel or in sequence with it. Connections in space will lead a particular interaction process to become more or less close to other interaction processes, in at least some their aspects. For example, joint technological development between two companies may lead to their increasing interaction with others that can provide support technologies or that may be potential applications for the technology. In this way an actor becomes related to other actors of which it may know very little. Interaction with a specific counterpart indirectly but systematically relates an actor to a whole set of other actors. Interaction is a way for ideas, solutions and technologies to travel across several actor boundaries. The facilitation of these connections is the classic role of distributors, such as wholesalers and export/import agents and financial intermediaries such as brokers. The

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[6] A long-term view has been taken by many other researchers in related areas. Examples include those in the history of technology (i.e Hughes 1983, Lindqvist 1984), history of science (i.e. Galison 1997), science in action (Latour 1984, Law 1992) and economic history (Rosenberg 1994 and David 1985). Others are those where change, growth or evolution have been central questions such as Nelson & Winter (1982), Pasinetti (1981), Penrose (1959), Nonaka (1991), and Kauffman

(1995). A third type is organizational studies dealing, for example, with organizational learning (such as March 1988 and Powell et al 1996).

interactive business landscape is characterised by a large and increasing number of companies with few but highly specialized internal activities or resources that operate almost solely on the basis of their ability to access the activities and resources of others. Hence these companies operate on the basis of their ability to interact on behalf of counterparts. This role is illustrated in the earlier presented Figure 3. Actor A is positioned so that it interacts with both B and C and this gives it the opportunity to influence two adjacent interaction processes and to mediate between two or more adjacent actors that do not interact with each other. This mediating effect may extend to other more distant interactions across the network and is commonly seen in the case of search engines, import houses, trade organisations and financial service providers.

Interaction provides a way for companies to take advantage of an economic world that is characterised by diverse, distant and often unknown but potentially co-operative counterparts. Interaction creates stability in a continuously changing landscape. This stability is necessary in a world that is full of influences that are unknowable by any individual actor. The structure of interaction relates a single company to particular others that in turn are also related to others. In this way, every interaction process, every involved actor, activity and resource has a specific position that is determined by the processes in which it is involved. In the short term these positions provide the multiple and relative contexts within which interaction takes place. In the long term, continuing interactions successively change their positions and the structure.

Business actors employ their resources differently in interaction with different counterparts and develop their interdependencies differently with each of them. The value of an actor's resources and the usefulness of its activities vary between the particular processes in which they are employed and depend on the connections between each process and others. This variation means that we cannot analyse a single interaction

process in isolation, but only in relation to others that exist in parallel or in sequence with it.

The importance of space for interaction raises the issue of what approach to interaction may be appropriate for an actor in a particular setting. A consequence of the importance of space is that there are no general rules to enable us to determine what interaction is appropriate. What is good in one situation may not work in another and what is right for one company given its place may be wrong for others. But even more problematic is that what is right in the short run may be wrong in the long run and what is perceived in a positive way by one counterpart may later be viewed negatively by the same counterpart.

The ability to analyse and cope with changes in relation to space dimensions becomes a key issue for actors. These changes will involve relative movement between one particular interaction and others. This is part of the critical question for those involved in analysing interaction, "who should a particular actor prioritize in its interactions and who should it not?"

The close connection between space and interaction creates a dynamic *structure* in which each process (and specific elements within it) is related to particular others that in turn are also related to particular others. For example, business interaction may lead a particular company to systematically adapt *towards* a particular counterpart. This will be manifested in changes in the company's resources, activities and relative interdependence. But at the same time, the particular counterpart may be moving toward some other counterpart and that counterpart may also be moving in relation to others and so on and on. Companies evolve in relation to each other: It is a case of movements within a moving world!

Space and Routines in Interaction

A considerable proportion of an actor's interactions are likely to become routinised within its different continuing relationships, encompassing such things as "normal" deliveries, services, payments

etc. This normal interaction may be contrasted with that which consciously or unconsciously changes the characteristics of particular relationships or the connections between them. Routine interaction may lead to the development of formal or informal rules between specific companies and across the wider network, so that each knows what should be done, or what each can get away with. It is common for the effects of these rules, both formal and informal, legal and illegal, to extend over many participants in a network and to produce a contrast between the relative interactions of "insiders" and "outsiders" (Kriesberg1955, Palamountain, 1955). Common examples of these rules include professional ethics, trade association rules, contract law and dispute resolution, common terms of trade, market sharing and price fixing (Mouzas and Ford 2009).

Routines have an important two-fold effect on interaction. On one hand, routines create predictability and trust between the counterparts and can increase the efficiency of a relationship as they can reduce many of the costs of handling the relationship, such as making deliveries, payments and other day-to-day activities. However routine interaction may also become "institutionalised" so that ways of working are unquestioned and inefficiency and other problems can develop.

6. A Model Of The Interaction Process

We can now continue this conceptualisation in a model that seeks to systematically relate interaction to time and space. The model is shown in Figure 4.

TIME   **SPACE**

PATH   Resource Constellations   HETEROGENEITY

CO-EVOLUTION   Actor Webs   JOINTNESS

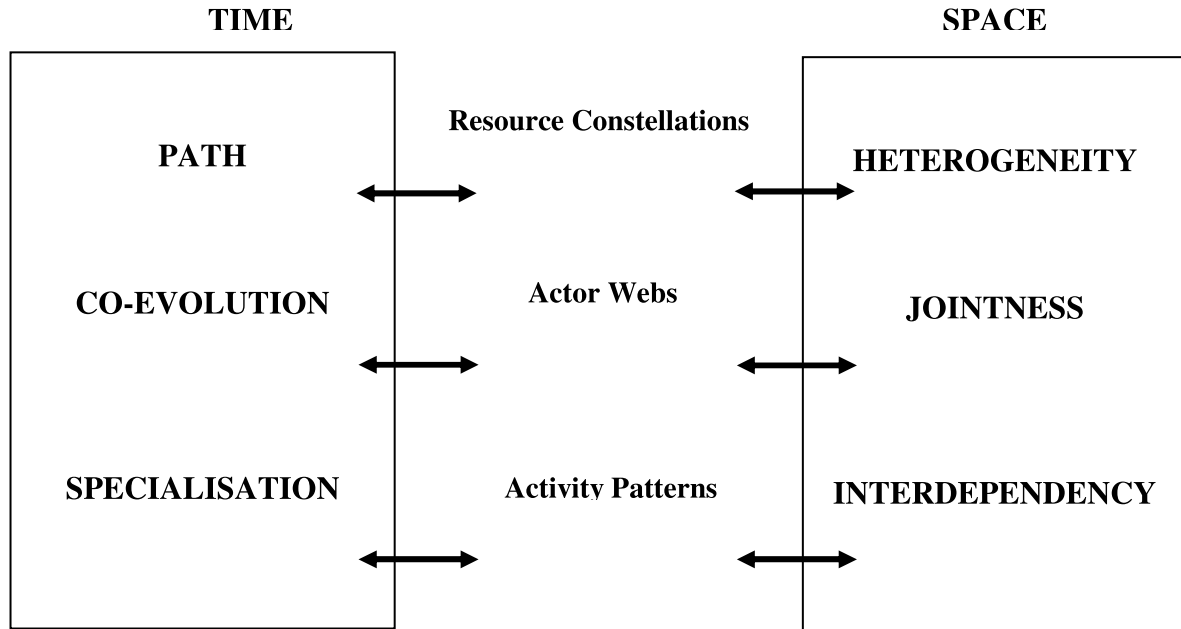SPECIALISATION   Activity Patterns   INTERDEPENDENCY

Figure 4
A Model Of Business Interaction

The model is based on the idea that business interaction is a process that takes place within and between the three layers of the A-R-A Model: the activities and resources of each of the counterparts in the process and the counterpart actors themselves. Each of these three layers is modified and shaped by the particular interaction process. But the model also shows that each interaction process is part of a network that involves many others and each activity, resource and actor forms part of a wider pattern of activities, constellation of resources and web of actors across the network. The form of each actor, activity and resource at any particular is defined by its position within these wider webs, patterns and constellations across the network. The form of each layer at any one time is the outcome of previous interactions and part of a continuing evolution.

We can now use the model to examine the connections between each interaction layer and time and space, as follows:

Interaction, Activities and Time:

The model refers to the evolution of activities over time as a process of *specialization.* Business actors[7] build specialisation into their activities relative to counterparts and others as interaction develops. Interaction constantly relates individual specialization processes to each other. The specialization of activities by actors is an important factor in the development of long-term business relationships and activity patterns. Specialisation involves a willingness by actors to forgo short-term gain for long-term reward and a commitment to a particular counterpart at the expense of others. Actors have to be able to assess and re-assess the costs and benefits of these specialisations as their relationships develop, their interdependence grows and the problems on which they are based evolve. Many

specialisations involve significant costs for both actors, but many are critical for the development of particular relationships. But specialisation is neither a simple nor an uncontroversial process: the specialization of a single activity may affect many other activities either positively or negatively across different activity patterns. Specialisation towards one interaction process frequently involves specialization away from another.

The specialization process is closely related to the development of interdependencies between activities in the space dimension as will be further developed below.

Interaction, Activities and Space:

Activities distributed in the space dimension are *interdependent.* They may be in different geographical locations; they may arise from different problems; be for specific or wide application or involve different types of costs and benefits. Some of these activities may appear to be independent, but they are more likely to be connected to others in a variety of ways. They are more or less interdependent. Interdependence of activities is both a pre-existing structure of interaction and is an outcome of interaction and the development of business relationships. Interdependence both affects and is affected by interaction.

The interdependence of activities is an unavoidable consequence of the distribution of activities across the business landscape. This distribution develops over time in order to gain the benefits of specialisation. These interdependencies are both important and complex and interaction will be strongly influenced by the possibilities and problems that arise from them. But the complexity of interdependencies may mean that actors are not aware of the existence of all of them, nor may they appreciate their implications. Hence a key aspect of business interaction is the building, managing and exploitation of interdependencies.

Dependence on the activities of others is not a negative, but an

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[7] Throughout this paper we use the term business *actor* to refer without distinction to companies, subgroups or individuals. For a detailed discussion of the concept of the interactive business actor see Hakansson et al (2009)

essential aspect of interaction. Companies can exploit the specialization of activities in a more extensive way through *seeking* and accepting dependence on others. Dependence also enables them to develop and exploit other activities and achieve efficiencies. But interdependencies also increase the commitment of companies to specific counterparts over time as well as the relative importance of their interaction with them. Companies also seek to build the dependence of others on themselves in order to achieve stability in their interactions over time with consequent gains in efficiencies.

The interdependencies in an actor's existing relationships simultaneously empower and constrain its ability to achieve change and growth (Håkansson and Ford 2002). Thus for a company relying on the activities of others increases its freedom to invest its own resources in more productive areas within that relationship or elsewhere and provide the basis for it to develop in new directions. But at the same time, an actor's dependence in its existing relationships restricts its freedom to act in the directions of its own choice and require it to invest in interaction within its existing relationships.

Interaction, Resources and Time:

The development of a single resource or a combination of resources; physical, human or financial into particular technologies or abilities often follows an identifiable *path* over time. These paths have been observed by a number of studies of technological development that have explored the existence of path-dependency. The development of a resource along a path is closely connected to the interaction which can be observed in the use of that resource and in its combination with others in a resource constellation. This path can often be observed in the use of particular resources in different applications in sequence. For example, the technological resource of electronic control was sequentially applied in different applications such as petrol pumps, taximeters, domestic appliances and vehicle engines by combining it in

different resource constellations with other technological as well as physical, financial and human resources.

The development of single or constellations of resources over time, whether depicted as path-dependence,

aspects of the space dimension: geographic, problem orientation, technology. Thus interaction effectively "moves" resources relative each other and consequently affects their value and how embedded they are in each other.

Interaction, Actors and Space:

The existence of the space dimension has similar implications for the actor layer as for resources. These implications centre on the differences between actors in their various interactions. Each actor acquires its identity through its interactions with particular counterparts. A business actor cannot exist in isolation, it is always contiguous with some others and this leads to *jointness* (Håkansson and Snehota 1989). Jointness is a way of characterizing the specific relationship between any two actors in relation to all others. Jointness is a central feature of an economic world where interaction is a key attribute and it has a number of aspects.

Jointness implies that interaction is never simply dyadic. Even if interaction appears to take place between only two parties, the intentions of those parties, the content of their interaction and its outcomes will not be limited just to them. Any actor interacting with a specific counterpart depends on the intentions, resources and activities of all those others with which it also interacts. Thus, any company that supplies another does so by using its own activities and resources. But it also uses the activities and resources of its own suppliers as well as those of the customer. It also uses the activities of its other customers. In this way, all business interaction has an important "joint" content. Thus a business company cannot be adequately described in terms of its own internal activities and resources (Ford and Håkansson 2010). A company is probably more accurately described as a "node", or the point at which the activities and resources of others come together with its own, through its interactions with those others.

Jointness can also take organizational forms such as when actors take part in directed, collective or *joint*

interaction with specific others. Examples include joint technological development, joint logistics or the development of joint sales or procurement organizations. Thus we can identify jointness in the design of resources, or in the performance of activities as well as in the holding of similar ideas about the context of interaction. An important effect of jointness is to reduce the importance of an actor's own intentions in determining the direction of its development and increases the importance of the combined intentions of interacting parties in the development of them all.

The concept of jointness also covers two related aspects that describe the orientation of companies towards each other: Mutuality and Reciprocity (Ford et al 1986). *Mutuality* exists when the interacting parties explicitly pursue common aims. Mutuality is a measure of how much a company is prepared to give up its own individual goals in order to improve the relative outcomes of specific others and through this to increase its own ultimate well-being. Hence mutuality is closely related to time and the trade-off that actors have to make between short-term opportunism and longer-term gain. *Reciprocity*, exists when parties feel obliged to interact on the basis of the previous actions of a counterpart. Reciprocity can involve both positive rewards and negative pay-backs and is closely related to time: Interactions may be based both on assurances of long-term future pay-back and on revenge for grudges from long ago.

The underlying logic of jointness is that the space dimension in interaction makes it both possible and necessary to create jointly positive results with others. In the long run any company in an interactive world is dependent on the success of its counterparts. The interaction between two actors is related to interactions with others and it may be influenced, mediated or facilitated by these others. This is seen clearly in the context of a so-called distribution channel or supply-chain. In both of these cases it is the interdependencies and interaction between the actors, rather than the plans or control of any one of them that jointly

allow goods and services to flow between them.

The existence of jointness fundamentally questions the meaningfulness of analyzing a single business alone or a single action *in itself.* We cannot separate and isolate any action from the corresponding reactions of counterparts. All are part of the interaction between multiple actors. An actor exists in the context of its network and is defined by its relationships and through its interactions in that network. An actor's interactions effectively determine its characteristics, its capabilities, its scope, its freedoms, its obligations and its restrictions. Each actor and each interaction will depend on and be based on the actor's own resources and those of others who stand with it, behind it and against it.

Interaction, Actors and Time:

Actors evolve in an interactive landscape. Business companies successively change both in terms of the activities they perform, the resources they control and with whom they interact. But the evolution of each single actor is not an individual process, but one that takes place interactively with others. Actors *co-evolve.* Co-evolution means that if an actor seeks to cope with its own problems or opportunities it has to do so by also coping with those of its counterparts. Co-evolution does infer that any two business companies necessarily evolve by becoming closer to each other or that relationships have a deterministic life leading to ever greater mutuality. Instead, co-evolution is a multi-dimensional process that takes place within two or more actors in parallel as each seeks to relate its own problems, resources and activities with those of others. In this way, co-evolution can actually lead actors to become more diverse.

The importance of working together and different suggestions to how it can develop has been discussed in other marketing studies such as Achrol 1991 and Achrol and Kotler 1999, in general network based studies such as Castells

2000, Jarillo 1988, and Freeman 1991, in strategic alliance studies such as Gulati 1998, Gulati et al 2000 and Spekman et al 1998, interorganizational studies (Powell et al 1996) and can also be related to research in political science and game theory such as Axelrod (1984), but also to research based on social network studies (Nohria & Eccles 1991, Podolny 1994).

7. Conclusions

The aim of this paper has been to develop the empirically derived idea that interaction is the core process of the business landscape. The idea of business interaction involves a radical departure from the view of the business landscape as a market in which transactions can be considered as discrete entities and in which the activities of marketing and purchasing can be understood as generalities or in isolation from each other. The idea of business interaction suggests that the process between each set of counterparts is unique and may involve multiple episodes over time. This infers a structure for the business landscape composed of individually significant and interconnected interaction processes of which products or services are simply the most immediately apparent outcomes. The idea of business interaction shifts analysis to the activities and resources of companies and the ways that these are adapted through interaction. This analysis shows that business actors, activities, resources are not simply the result of individual company strategy but are equally the outcome of specific interaction processes. An interactive view of business opens up a wealth of issues and opportunities for managers:

Firstly, an interactive view of business de-emphasises the independent status and the internal resources of a company and envisages management as a process of working within a structure of specific interdependencies with others. These interdependencies exist within each layer of interaction; activities, resources and actors and emphasise that the knowledge on which operations are based is not bound by corporate borders, but effectively exists *between* companies.

Secondly, this way of conceptualizing business interaction suggests that it plays a key role in constructing and modifying the value of physical and intellectual assets in specific situations. Thus, interaction can be the means through which business actors co-evolve and co-create the physical as well as the economic context. Of course, this development might lead to negative as well as positive outcomes for companies by leading them into uneconomic activities or to unproductive investments.

Thirdly, this way of conceptualizing interaction enables managers to create a measure of stability and predictability in their operations. The development of interaction processes with others enables each company to rationalise investment in its own physical and intellectual assets. However, the conscious or unconscious development of interdependencies with others enhances the importance of managerial skills in interaction and in the development of productive relationships.

This paper has presented a model of the underlying process of business that is central for the supposedly separate activities of purchasing and

means of making changes in a company: The role of purchasing in a major turnaround for Ducati. *The IMP Journal* 2 (2), 25-37.

Buttle, F. & Naude, P. (2000). Assessing relationship quality, *Industrial Marketing Management*, 29 (4), 351-361.

Bygballe, L. (2005). *Learning Across Firm Boundaries The Role of Organisational Routines,* Ph.D *Norwegian School of Management,* BI, Oslo.

Castells, M. (1996). *The Rise of the Network Society. The Information Age: Economy, Society, and Culture.* 1. Oxford: Blackwell Publishers.

Dahlquist, J. (1998) *Knowledge Use in Business Exchange, Acting and Thinking Business actors,* Doctoral thesis no 74, Department of Business Studies, Uppsala University.

David, P.A. (1985). Clio and the Economics of QWERTY. *The American Economic Review*, 75 (2), 332-337.

Dubois, A. (1998). *Organising Industrial Activities Across Firm Boundaries,* London: Routledge.

Easton, G. & Lundgren, A. (1992). Changes in industrial networks as flow through nodes. In Axelsson, B. & Easton, G. (Eds.). *Industrial Networks – A New View of Reality*, London: Routledge.

Ford, D. (1980). The development of buyer-seller relationships in industrial markets, *European Journal of Marketing,* 14 (5/6), 339-353.

Ford, D. & Håkansson, H. (2010). Accounting and Interorganizational issues. In Håkansson, H., Lind, J. & Kraus, K. (Eds.). *Accounting in networks,* London: Routledge.

Ford, D., Håkansson, H. & Johanson, J., (1986). How do Companies Interact? *Industrial Marketing and Purchasing,* 1 (1), 26-41.

Ford, D., Gadde, L-E., Håkansson, H. & Snehota, I. (2003). *Managing Business Relationships,* 2nd edition, Chichester: John Wiley.

Ford, D. & Rosson, P. (1982). Manufacturers-overseas distributor relations and export performance, *Journal of International Business Studies,* Fall, 57-72.

Fredriksson, P. & Gadde, L.-E. (2005). Flexibility and rigidity in customization and build-to-order production, *Industrial Marketing Management*, 34 (7), 695-705.

Freeman, C. (1991). Networks of innovators: a synthesis of research issues. *Research Policy*, 20 (5), 499-514.

Gadde, L-E. & Håkansson, H. (2001). *Supply network Strategies*, Chichester: Wiley & Sons

Galison, P. (1997). *Image and Logic: A Material Culture of Microphysics,* Chicago: University of Chicago Press

Gulati, R. (1998). Alliances and Networks. *Strategic Management Journal*, 19, 293-317.

Gulati, R., Nohria, N. & Zaheer, A. (2000). Strategic Networks. *Strategic Management Journal*, 21, 203-215.

Håkansson, H. (Ed.). (1982). *International Marketing and purchasing of industrial Goods: An Interaction Approach,* New York: John Wiley & Sons

Håkansson, H. (1987). *Industrial Technological Development: A Network Approach.* London: Croom Helm.

Håkansson, H, (1989). *Corporate Technological Behaviour. Co-operation and Networks.* London: Routledge

Håkansson, H. & Johanson, J. (1987). Formal and Informal Cooperation Strategies in International Industrial Networks. In Contractor, F. J.

& Lorange, P. (Eds.). *Cooperative Strategies in International Business.* Lexington, Mass.: Lexington Books.

Håkansson, H. & Johanson, J. (1992). A Model of Industrial Networks. In Axelsson, B. & Easton, G. (Eds.). *Industrial Networks: A New View of Reality,* London: Routledge, 28-34.

Håkansson, H. & Johanson, J. (2001). *Business Network Learning,* Amsterdam: Pergamon.

Håkansson, H. & Snehota, I. (1989). No Business is an Island, *Scandinavian Journal of Management,* 5 (3), 187-200.

Håkansson, H. & Snehota, I, (1995). *Developing Relationships in Business Networks,* London: International Thomson.

Håkansson, H. & Ford, D. (2002). How Should Companies Interact? *Journal of Business Research,* 55, 133-39.

Håkansson, H. & Waluszewski, A. (2002). "Managing Technological Development. IKEA, the environment and technology". London: Routledge,

Håkansson, H., Havila, V. & Pedersen, A-C. (1999). Learning in Networks. *Industrial Marketing Management,* 28, 443-52.

Håkansson, H., Huysman, M. & von Raesfeld Meijer, A. (2001). Inter-Organizational Teaching. In Håkansson, H. & Johanson, J. (Eds.). *Business Network Learning,* Amsterdam: Pergamon.

Håkansson, H. & Johanson, J. (Eds.). 2001, *Business Network Learning,* Amsterdam: Pergamon.

Håkansson, H. & Waluszewski, A. (Eds.). (2007). *"Knowledge and Innovation in Business and Industry. The importance of using others."* London: Routledge.

Håkansson, H., Waluszewski, A., Prenkert, F. & Baraldi, E. (Eds.). (2009). *"Use of Science and Technology in Business: Exploring the Impact of Using Activity for Systems, Organizations and People.* Bingley: Emerald Group.

Håkansson, H., Ford, D., Gadde, L-E., Snehota, I. & Waluszewski, A. (2009). *Business in Networks,* Chichester: John Wiley.

Hallen, L., Johanson, J. & Seyed-Mohammed, N. (1991). Interfirm adaptation in business relationships. *Journal of Marketing,* 55 (2), 29-37.

Henders, B., (1992). Position in Industrial Networks. Marketing Newsprint in the UK, *PhD Dissertation, Department of Business Administration, University of Uppsala.*

Holmen, E. (2001). *Notes on a Conceptualisation of Resource-Related Embeddedness of Interorganizational Product Development.* Ph.D-dissertation, Institute for Marketing, University of Southern Denmark

Hughes, T. P. (1983). *Networks of Power: Electrification in Western Society (1880-1930).* Baltimore: John Hopkins University Press.

Huemer, L. (1998). *Trust in Business Relations. Economic Logic or Social Interaction,* Umeå, Borea

Jarillo, C. J. (1988). On Strategic Networks, *Strategic Management Journal,* 9, 31-41.

Johanson, J. & Mattsson, L. G. (1988). Network Position and Strategic Action – An Analytical Framework, Working Paper, University of Uppsala, Department of Business Studies.

Johanson, J. & Wootz, B. (1986). The German approach to Europe, In Turnbull, P. W. & Valla, J-P. (Eds.). *Strategies for International Industrial Marketing*. London: Croom Helm.

Johnsen, R. & Ford, D. (2008). Exploring the concept of asymetry: A typology for the analysis of customer-supplier relationships, *Industrial Marketing Management*, 37 (4), 471-483.

Kauffman, S. (1995). *At Home in the Universe*, Oxford: Oxford University Press.

Kriesberg, L. (1955). Occupational Control Amomg Steel Distributors. *American Journal of Sociology*, 61 (3), 203-212.

Laage-Hellman, J. (1997). *Business Networks in Japan, Supplier-Customer Interaction in Product Development*, London: Routledge.

Latour, B. (1984). *Science in Action*. Milton Keynes and Cambridge, Mass.: Open University Press and Harvard University Press.

Law, J. (1992). *Notes on the Theory of the Actor-Network: Ordering, Strategy and Heterogeneity*, Systems Practice 5 (4), 379-393.

Lindqvist, S. (1984). *Technology on Trial. The Introduction of Steam Power Technology Into Sweden, 1715-1736.* Uppsala Studies in History of Science 1. Stockholm: Almqvist & Wiksell International.

Lundgren, A. (1995). *Technological Innovation and Network Evolution*, London: Routledge

March, J. G. (1988). *Decisions and Organizations.* Oxford: Blackwell Publishing.

Marglin, S. (2008). *The Dismal Science: How thinking Like an Economist Undermines Community.* Cambridge

(MA): Harvard University Press.

Mattsson, L-G. (1989). Development of firms in networks: Positions and investments. In Hallen, L., Johanson, J., (Eds.). *Advances in International Marketing, Vol 3 Networks of Relationships in Internaional Industrial Marketing,* Greenwhich, CT: JAI Press, 3,121-139 .

Mouzas, S. & Ford, D. (2009). The Constitution of Networks, *Industrial Marketing Management,* 38, 495-503.

Nelson, R. R. & Winter, S. G. (1982). An *Evolutionary Theory of Economic Change.* Cambridge, Mass.: Belknap Press of the Harvard University Press.

Nonaka, I. (1991). The knowledge-creating company, *Harvard Business Review*, 69 (3), 27-38.

Nohira, N. & Eccles, R. G. (Eds.). (1991). *Networks and Organizations: Structure, Form, and Action.,* Boston, Mass.: Harvard Business School Press.

Palamountain, J. (1955). *The Politics of Distribution*, Harvard University Press, Cambridge

Pasinetti, L., 1981, *Structural Change and Economic Growth. A Theoretical Essay on the Dynamics of the Wealth of nations.* Cambridge: Cambridge University Press.

Pedersen, A-C., Torvatn, T. & Holmen, E. (2008). Towards a model for analysing supplier relationships when developing a supply network. *IMP Journal* 2 (2), 38-58.

Penrose, E. (1959). *The Theory of the Growth of the Firm.* Oxford: Oxford University Press.

Podolny, J. M. (1994). Market uncertainty and the social character of economic exchange, *Administrative Science Quarterly*, 39, 458-83.

Powell, W. W., Koput, K. W. & Smith-Doerr, L. (1996).

Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology, *Administrative Science Quarterly*, March 1996, 41 (1), 116-145.

Richardson, G. B. (1972). The Organisation of Industry, *Economic Journal*, 82, 883-896.

Rosenberg, N. (1994). *Exploring the Black Box: Technology, Economics, History.* Cambridge: Cambridge University Press.

Spekman, R., Kamauff, J. Myhr, N. (1998). An empirical investigation into supply chain management: a perspective on partnerships. *Supply Chain Management,* 3 (2), 53-67.

Torvatn, T. (1996). *Productivity in Industrial Networks – A Case Study of the Purchasing Function.* Ph.D dissertation, Department of Industrial Economics and Technology Management, Norwegian University of Science and Technology.

Van der Ven, A. H., Polley, D. E., Garud, R. & Venkatarman, S. (1999). *The Innovation Journay*, New York: Oxford University Press

Von Hippel, E. (1988). *The Sources of Innovation,* New York: Oxford University Press.

Waluszewski, A. (1989). *Framväxten av en ny massateknik - en utvecklingshistoria. (The development of a new mechanical pulping technique)(dissertation).* Acta Universitatis Upsaliensis, Studiae Oeconomia Negotiorum, 31. Almqvist &Wiksell, Uppsala.

Williamson, O. E. & Ouchi, W. G. (1981). The Networks and Hierachies Program of Research: Origins, Implications and Prospects,

in van den Ven AH and Joyce, WF (eds), Perspectives on Organisation Design and Behavior, New York: John Wiley.

Wilson, D. T. & Jantrania, S. (1994). Understanding the value of a relationship, Asia-*Australia Marketing Journal,* 2 (1), 55-66

Wilk, R. R. (1996). *Economics & Cultures. Foundation of Economic Anthropology.* Oxford: Westview Press.

Wilkinson, I. F. & Young, L. C. (1994). Business dancing – the nature and role of interfirm relations in business strategy. *Asia-Australia Marketing Journal,* 2 (1), 67-79.