In What Sense an Interaction Approach?  
— Methodological Aspects of Longitudinal Industrial Marketing Studies

by

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In what sense an interaction approach?
- Methodological aspects of longitudinal industrial marketing studies

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Abstract
In the interaction approach the processual nature of exchange relationships is especially noted. Nevertheless, time has not been seriously treated in interaction studies. This article deals with how time is incorporated into industrial marketing research. Ontologically the time concept is analysed and at the theoretical level markets and their time-perspectives are discussed. The concept of relational time is put forward, especially for studying business markets from an interaction perspective. Methodologically the paper explores three different longitudinal approaches. Conclusions are made about the importance of time consciousness in industrial marketing studies.
Introduction

The way markets are structured and the way they function have been treated in different ways in industrial marketing during the past decades. The traditional marketing mix approach has assumed markets to be homogeneous, consisting of independent exchange partners, who behave in a mechanistic way. Cross-sectional data has been gathered from big samples in order to describe and explain the static structural aspects of the market. The interaction approach to business markets, on the other hand, has viewed the market as a network of relationships. It has emphasized the existence of long-term buyer-seller relations and conceived them as interaction processes between participating firms and actors. Thus, the processual view on exchange relationships is essential for the interaction approach. To our understanding, however, the concept of time has often been neglected in interaction studies. The meaning of time as such as well as its implications for theory building and methodology have not been discussed, even though the processual perspective is one of the basic assumptions underlying the Approach.

The focus of this paper, therefore, is on time. In our view, the present moment can only be understood in terms of its history and its future. Social and business events happen in time between different actors who have histories, present surroundings and values as well as future expectations and goals. Actors cannot escape the past and the way they look at the present is necessarily guided by their intentions and beliefs about the future of the relationship. A sound theory of industrial markets must take these time dimensions into account. This implies that methodology has to be considered from a temporal perspective as well.

The way to understand markets, the underlying assumptions of a theoretical perspective, have direct implications for the type of theories constructed and the methods used in carrying out empirical research. In this paper we want to emphasize this interconnectedness
and to raise the question, how successfully the interaction approach has followed this logic of research paradigms with respect to its temporal assumptions. The aim of the paper is to explore how different theoretical approaches of industrial marketing and purchasing view the markets and the time dimension, how the interaction approach has incorporated time into its theories and methodologies, and how the time dimension could be dealt with in empirical analyses (Figure 1).

![Diagram](content)

**Figure 1.** General relations between time, context, theory, and methodology.

The paper starts by looking at the concept of time from a rather general point of view, and continues by exploring the temporal assumptions of industrial marketing and purchasing theories. After that, we will briefly present three methodological approaches, which are available for studying buyer-seller relationships. Some normative remarks about the benefits of longitudinal research methods and about the importance of time-consciousness for industrial marketing research are also put forward.

**Concept of time and its use in scientific language**

Time is - like space - one of the fundamental existing dimensions of our everyday life. That is why it is not usually treated as a problem as such. However, time is a complex and varied concept, which should
be treated very seriously. We can’t avoid or exclude time in social and business research.

Time has at least the following meanings. Firstly, time can be viewed as a concrete and metric concept. This is called the physical or absolute notion of time. Minutes, hours, weeks, months, years, etc. are used to measure and indicate physical time. Time is running like a clock at a specific pace and in a linear fashion.

Secondly, we can distinguish the subjective time concept. Time is experienced by human beings through their own existential realities. Time has different meanings to everybody; a man suffering from a malignant cancer views time differently than a vital and healthy young man, for instance. In its subjective meaning, time cannot be treated as anything absolute or exact.

Thirdly, time might also be considered from a cultural point of view. This means that different cultures and regions treat and use time in different ways. Circular and linear time (Hall 1961, 1976) are the two most used concepts in this respect. In cultural terms time is looked upon in the perspective of how it influences the human beings' way of living, working and socializing within a cultural surrounding. The cultural time concept is bounded to time-consciousness inherent in each culture.

Fourthly, related to cultural time, we could also distinguish the concept of business time. This concept refers to time connected to different activities in firms and in economic life in general. Business time influences marketers' and buyers' behaviour in many ways. Given deadlines, for instance, may function as stimulators of organizational activity. Tactic and strategic plans are made for different time spans and used as reference points by business people. An advertiser may organize his idea of time in terms of events like economic recession, busy season of his industry, balancing of the accounts, launching a new product, or the era of Managing Director X.
The way time is viewed in social research is associated with the adopted methodological approach. Quantitatively oriented studies tend to consider time in absolute terms, as it is easy to measure and include in mathematical equations. Interpretive approaches, on the other hand, have been able to take into account the ideas of subjective, cultural and business time.

Considering the study of business markets especially, we still want to suggest another concept of time which we call the relational notion of time. By this we mean that time should not be regarded only from one single point of view but in relation to other times, such as the past and the future, or in relation to the specific cultural and situational context where things happen (cf. the contextualist analysis of Pettigrew 1985, 35-38). Time could also be viewed as having different levels simultaneously, where the pace of change may differ. Braudel (see Odén 1989, 134-135) calls these la longue durée, la conjuncture and l'histoire événementielle in historical analysis. La long durée refers to the slow, almost unchanging progression of something during a period of time (e.g. climate or language). La conjuncture is a level of time in which changes happen in cycles, (e.g. economic cycles), and l'histoire événementielle refers to the traditional way of looking at history as made up of short and nervous movements.

In processual socio-economic studies - as in studies of industrial interaction - time should be regarded in a relational, multidimensional fashion. Relational time has at least the following three properties: (1) the concept of time in a relationship is bound to the past, present and future of the relationship; (2) time has a relation to the culture and space surrounding interaction; time is perceived

1SPACE IS NOT AN EASY CONCEPT EITHER. HERE WE REGARD SPACE IN A MULTIDIMENSIONAL FASHION AS WELL. IN INTERACTION SPACE IS VIEWED FROM A MENTAL POINT OF VIEW, i.e. THE INTERACTORS' MENTAL ATMOSPHERES. REGIONAL AND CULTURAL BACKGROUNDS AS WELL AS NATIONAL CHARACTERISTICS ARE SPATIALLY SEPARATED, WHICH CREATES POSSIBLE PROBLEMS FOR INTERACTION. SPACE IN A LOGISTICAL SENSE IS ALSO PRESENT IN BUSINESS SITUATIONS.
differently within different cultures and groups of people; (3) time has its context, which means that it is related to the human actors, their situation and the problems they try to solve through interactions. In this fashion relational time becomes a kind of ontological entity of time conceptions, which could be used as a tool in couching theories and in conducting empirical research into interaction and networks in business markets.

In order to clarify what is meant by different time-related terms a brief discussion of scientific language is needed. Researchers commonly use such expressions as 'dynamics', 'processual' and 'longitudinal' when referring to the temporal elements of their studies.

'Dynamics' is easily associated with studies of dynamic systems, where for example time delays between different inputs and outputs of the marketing system are examined (see Forrester 1961), or with quantitative studies, where carry-over effects and response curves for different marketing expenditures are studied (see e.g. Lilien & Kotler 1983). This idea of dynamics is probably borrowed from physics; it is clearly linked with the physical and linear time notion, which is compatible with mathematical methods.

This meaning of dynamics is, however, much too narrow to be used in buyer-seller contexts. We suggest that dynamics should rather be viewed as a time-related force that produces change or includes change in itself. Dynamics always implies the idea of unstability and change (cf. Eneroth 1984, 129). For example Laaksonen (1987), in his study of retail patronage dynamics, points out that the inner dynamic tendencies which consumers have mean tendencies to strengthen, keep and change the behavioural structure which prevails at one period of time in a specific space. He views dynamics as an actor's tendency to behave in the long run rather than in terms of sequences in a single choice process.

There exist a number of conceptual tools for mastering dynamic phenomena in social research. Laaksonen (1987, 12-13) enumerates
regularity, stability, consistency, and change as aspects peculiar to
dynamics. Classical physicists connected time and events by three
relations: chronological order, duration and simultaneity (Keskinen
1989, 172). Mintzberg et al. (1976, 263) point out that decision
processes do not show steady, undisturbed progression from one routine
to another, but on the contrary the process is dynamic and subjected
to interferences, feedback loops and dead ends. They identified
several dynamic factors influencing decision processes: interruptions,
delays, speed-ups, and cycles. Finally, Van de Ven (1987, 335) has
separated cycles and breakpoints as two useful tools for identifying
processual patterns. All these concepts might be useful for outlining
and analysing time-bounded phenomena in their context. Some of them
have a close relation to the linear time notion, some others to the
cyclic idea of time. What we suggest is that this kind of tools should
be used more in business-to-business studies in order to better
understand interaction and in order to show the time-relatedness of
episodes, processes and bonds more clearly in buyer-seller models and
theories.

In a social context the term 'process' is commonly understood as a
series of actions, which are carried out in order to achieve a
particular result. Process may also be viewed as a series of
developments, which result in a change or as a series of thoughts and
actions, through which one comes to a decision. It is obvious, that
the meaning of 'process' and how it is defined depends on the study,
its aims and its substantive area. The term process is, however, often
connected to change, at least in organizational studies. Miller and
Friesen (1982, 1014) define process as any sequence of change in
organizational variables. According to Hammersley and Atkinson (1983,
219), "process rests on time dimension" and it has two inherent
themes: continuity and change.

Van de Ven (1987, 331) views process especially as a process of
change. For him, change is an empirical observation of differences in
time on one or more dimensions of an entity, and a process of change
is an inference of a latent pattern of differences noted in time.
Thus, change processes are not directly observed; they are conceptual inferences instead. Eneroth (1984, 129-133), on the other hand, suggests that dynamic phenomena can be examined either as changes of some structural aspect, relation or structure, or as changes of something as it flows through the static structure of the phenomenon. In the flow perspective the interest is in the transition and transformation of the studied object itself, for instance of a decision in a decision process.

We feel inclined to regard the concept of process in general terms as a change, transition or transformation of something over time. Changes, transitions and transformations are manifested in different ways and to different directions and they always happen in a specific context. The context and the specific phase of a process affect the actors' behaviour and their disposition to adapt to each other and to the environment where industrial interaction takes place.

The term 'longitudinal' is often used in relation to methods. Miller and Friesen (1982, 1013-1014) as well as Kimberly (1976, 329) define longitudinal research as "those techniques, methodologies and activities which permit the observation, description and/or classification of organizational phenomena in such a way that process can be identified and empirically documented". In other words, longitudinal refers to methods and tools which enable the study of processes. The term 'longitudinal' also characterizes data collection. Data is collected at many points of time contrary to cross-sectional studies, where data is gathered at one specific moment.

Concepts of markets in industrial marketing and their conception of time

In our short summary of different ways to understand industrial markets, we try to explore how the different approaches have dealt with time. The conception of time is either implicitly or explicitly

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2By transition Eneroth means the change of an object into something else, and by transformations he means that an object is changing with respect to its form, strength and so forth.
embedded in the ontology of a theoretical approach. Whatever the theoretical approach one examines, one of these perspectives is always present: static, dynamic or teleologic (Eneroth 1984, 124).

The theory of marketing rests on ontology of markets and how they function and are structured. Our understanding of the world around us guides the way of approaching the concept of market. What exists in business markets is a crucial question, which guides the possible routes of research. In marketing science different paradigms have been dominant at different times. We start the overview from the 60's, from the "mix" approach and trace the different approaches until the 90's.

In the marketing mix-approach the market is seen as a group of more or less anonymous people who make their buying decisions often through certain model criteria. The decision maker (often the consumer) is viewed as an economic man, but also behavioural or cognitive perspectives have been used. The market is separated from the firm. This approach has also been used in business-to-business marketing, especially in the sixties (Kotler 1972, Robinson et al. 1968, Risley 1972, Reeder et al.1988). In most cases time is not treated as an important variable at all. It comes to the fore when changes in people's buying or shopping behaviour are noted. The time span is often limited to the present time with a short look into the future. Time has, in the mix-notion of markets, the linear and physical meaning, which is in keeping with the building of quantitative models.

Different buying process-models have time dimensions embedded in them. In those the time dimension is used to distinguish different sequences of a single choice process. Time is also present in the life-cycle models. The focus is, similarly, on separating phases in the life-cycle. Time has no multi-dimensional role in either type of models.

**Contractual agreements paradigm(s)**

In industrial economics, in the 70's and 80's, one can find new contributions to how markets might be looked upon. In the "institutional economics sense" the market is seen as a group of firms
co-operating and finding different ways to position themselves in buyer/seller chains (Williamson 1975, 1979). It is difficult to find time-specific treatment of Williamson's seminal work (1975). Transaction economics seem to look at contractual agreements from a quite static perspective. Time has not a central position; it is only implicitly imbedded in the theory. Time is treated narrowly, in the same way as in the marketing mix-approach.

The agency theory perspective is close to this view (see Eisenhardt 1989). In agency theory, however, the contract between cooperating parties is highlighted instead of organizational boundaries. Both the transaction-cost economics and the agency theory are normative in nature. They try to determine the most efficient contractual agreements in varying conditions. This is close to a teleologic orientation in the sense that Eneroth (1984) treats the issue. Time is implicitly incorporated in these perspectives. Learning effects as well as the existence of long-term agreements seem to be acknowledged (see e.g. Eisenhardt 1989, 62 and the concept of asset-specificity, Williamson 1979). The theories also seem to suggest that if changes happen in the determining conditions, the contractual form should be changed, accordingly. This temporal aspect is, however, not emphasized.

Arndt’s article from 1979 is important from the point of view of market conceptions. Arndt points out the existence of three different kinds of markets, from the classical competitive market situation to more regulated or domesticated markets. The domestication of markets can happen both from within an industry or market through different kinds of agreements, take-overs etc., or from the outside through government intervention. Arndt also pays attention to the different time perspectives of exchange in the three market models. Nevertheless, even in this approach the inclusion of time is more implicit than explicit. The development and change of markets is not focused on.
The interaction perspective (or "approach," which seems to be a popular expression) has yet another view of markets. This approach looks at markets from within as continuous and changing exchange/interaction processes between firms (Håkansson & Östberg 1975; Håkansson (ed.) 1982; Turnbull & Valla (eds.) 1986; Ford (ed.) 1990). Business actors and their activities in buying and selling firms form the core of a market. Firms establish relationships, bonds evolve between them and in many cases the partners become dependent on each other. Adaptation and understanding create closeness, mutual trust and gains as well as commitment.

The interaction approach acknowledges the importance of time in business exchange and in development of markets. It takes a dynamic perspective on markets, whereas the other approaches tend to look at markets from a static or teleologic point of view (cf. Eneroth 1984). In the interaction approach the processual view on exchange is emphasized, which implies that time is explicitly integrated into the ontology of the approach. By comparison, the other approaches have treated time implicitly and in its physical meaning.

The interaction approach and its relation to time

The ontology of how to look at industrial markets has implications for how the theories and models are constructed, what kind of concepts are chosen to describe "reality" as well as how research is methodologically carried out. In this section we will discuss how the interaction approach has followed its temporal assumptions in its theory building and methods (see Figure 2).

The following implicit and explicit assumptions of the interaction approach might be treated as having time-consisting elements:
- Interaction is mediated through human actors. This means that human beings are at the centre of the processes studied. Therefore the perceptions, beliefs and attitudes of the actors as well as their behaviour, also with regard to time, should be central. This is especially important in cross-cultural interaction, where the actors'
time consciousness may vary (e.g. linear and circular time).

- Business interaction means mutual dependability, problem solving and adaptation. The actors and their organisations have to adapt to each other in order to solve mutual problems. This process is time consuming. The required amount of time depends on the type of problems and needs for adaptation.

- Markets evolve over time from dyadic to network-type relationships. Relationships have their present situations and future goals and later also their own histories. These time dimensions are all present in interaction. Every single episode may contribute to the future of the relationship, and each episode also takes place in those circumstances the present context and the relationship's history produce.

![Diagram](image)

**Figure 2. Relations between a relational time conception and research in business-to-business marketing**

A number of models have been built of buyer-seller interaction, which include time as an important variable. An analysis of the models developed by the IMP Group or by other interaction researchers shows that time has been treated at least in three different ways.

1. **Time as a proxy variable**

This is not the way interaction researchers have traditionally not looked at time. The idea of long-term buyer-seller relationships has, however, inspired some quantitatively oriented researchers to use event structure analysis to estimate the hazard rates, i.e. the
probabilities of relationship termination in relation to the length of the relationship (see e.g. Levinthal & Fichman 1988 and Dant 1989). In these studies the absolute time duration is used as a proxy variable, which is assumed to reflect the underlying dynamics of a relationship. Dant (1989, 160) explicitly points out that absolute time embodies the entire complexity of the relationship. These studies have shown the empirical relationship between the increasing length and increasing stability of relationships. They have, however, been unable to reveal anything of the processes that happen in time and that create this stability.

(2) Phase-models

In phase models time is viewed as a dimension along which successive steps or phases can be identified (cf. life cycles). Again, the time notion is physical and linear. The use of a change perspective is also typical of these studies (cf. Eneroth 1984 and Van de Ven 1987). The authors have studied some specific aspects of buyer-seller relationships and the change of them in time. In his pioneering study Ford (1982) concentrated on experience, uncertainty, distance, commitment and adaptations and divided the relationship development into five stages: pre-relationship, early, development, long term and final stage. Yorke (1990) examined for instance benefits, strengths and weaknesses of a professional service supplier as perceived by the buyer. He identified five phases in relationship development in professional service businesses: ignorance, interest, initiation, involvement and integration.

Phase models have later been criticized. Already in 1982, Ford and Rosson noted that relationships can be in various 'states'- growing, declining, inert - almost irrespective of their age. In a longitudinal study of atmospheres, Smith (1989) showed a great idiosyncracy in the development of relationships both within and across different commodity groups. There is other evidence as well which shows that the absolute time length of relationships cannot be used as a measure of the developmental stage or nature of interaction (for the strenght of bonds, see Easton 1987; for development of trust, see Holden 1990).
It is hence obvious that buyer-seller relationships do not develop along the same path or only in "forward" directions. This is, because each relationship has its own context and situations. Phase-models, which are based on absolute time or on a priori definition of stages hardly improve our understanding of the dynamic nature of buyer-seller relationships. What is needed, and what also Ford (1989) has emphasized, is a model of relationships, which shows evolution without a deterministic view of development. In order to construct such a model, more attention should be paid to the notion of time as well as to the use of longitudinal methods.

Identification of phases as such is not necessarily a negative thing. Phasing is a valuable means of organizing longitudinal empirical data, case histories, etc. It allows the investigator to break down his subject matter into more manageable parts. But there is still the danger of describing relationships as having more order and coherence than is the case in reality.

(3) Bonding and process models

The studies of Wilson and Mummalaneni (1986) and Miettilä and Möller (1990) go one step further. These studies try to capture the content of the relationships especially by expressing the models in dynamic terms like interactions, investments and commitment, exchange, coordination and adaptation processes, or attraction and trust. In other words, the concepts are themselves dynamic in nature and defined in terms of past, present and future, which releases the model building from the absolute time dimension. The relativistic time notion is used instead, even though it is embedded in the models only implicitly and in a narrow sense. The development of relationships is viewed in relation to processes and bonds and not in relation to a the mere passage of time. Feedback flows indicate that the same type of interaction processes may happen recurrently, having different outcomes and contributing to the strength and type of relational bonds depending on the current situation and contextual setting.
As noted earlier, the process-orientation is one of the crucial cornerstones of the interaction approach. In spite of this, in a large majority of interaction studies time has been included only as an implicit dimension, it has been treated in a narrow physical fashion and the use of dynamic conceptual tools like cycles, breakpoints, duration and simultaneity has been scarce. Evidently, there is still a way to go before we understand buyer-seller relationships as processual, dynamic phenomena. The relational time conception could be a fruitful tool in this endeavour. More attention should be paid to the contextual dependence as well as to the time-relatedness of processes, actions and events.

Theoretical development is also dependent on the adopted methodology. Longitudinal research methods have hardly been applied among interaction researchers (for some rare exceptions, see Rosson 1986, Smith 1989). In fact, phase models and bonding models have been developed through cross-sectional studies. This might explain the relatively modest progress of process models in buyer-seller interaction during the past decade.

Evidently, there are many reasons for the unpopularity longitudinal methodologies. Longitudinal process studies are extremely time-consuming, sophisticated methods are not readily available and the dynamism as such makes the study much more complicated. The value of longitudinal studies is, however, undeniable. A good example of this is the original phase model of Ford (1982), which was based on cross-sectional data and which has later been questioned in longitudinal follow-up studies by Rosson (1986) and Smith (1989). If we are to develop a better processual theory for business relationships, we also have to use longitudinal methods. In the following pages we will briefly examine how buyer-seller relationships could be empirically investigated in order to grasp the content and nature of their development.
Longitudinal methods for studying buyer-seller relationships

Longitudinal research, which focuses on the study of processes, provides some evident advantages compared to cross-sectional research (see e.g. Kimberley 1976; Miller & Friesen 1982, 1014). First of all, longitudinal research facilitates attempts to establish causality. Cross-sectional data usually leaves the question of causal priority between variables problematic, whereas in longitudinal studies temporal precedence can be established. In addition, in cross-sectional studies models are often misspecified, because too few variables are examined. The study of processes, instead, permits one to take contextual constraints into account and to include variables until the model sufficiently describes a functioning entity. In longitudinal studies the researcher often becomes familiar with particular buyer-seller relationships, which helps him to interpret the findings. A broad knowledge of the nature of the buying and selling organizations, the personalities of their managers, the network in which their relationship is embedded etc. allows the researcher to make inferences about why things happened. Finally, longitudinal research acknowledges and highlights the fact that exchange relationships do change over time and that the relationships between focal variables also may change along the dyad's development. This prevents process researchers from overgeneralizing and lumping very different dyads or organizations together.

Longitudinal research can take different forms. From early childhood we have learned to divide time into three sequences: past, present and future. According to this division we have distinguished three methodological approaches for studying buyer-seller relationships over time:

1. Historical or retrospective studies,
2. Follow-up studies, and
3. Futures studies

In the following pages we will give a brief survey of these approaches and discuss some of the problems and questions which confront researchers applying them (see Table 1).
Table 1. Characteristics of longitudinal methods

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Historical studies

Historical research is oriented towards the past. The task of historians is to investigate the past in order to better understand the present (Kalela 1972, 23-24; Gillette 1985, 308). More recently, the future aspect of historical research has also been emphasized. History does not only highlight the roots of the present by studying the past but it also provides people with some means and patterns to understand and plan their own future (Odén 1989, 130-132).

As the objects of historical studies are in the past, the investigator is forced to remain far away from the studied object. The time distance forms a considerable barrier, which has to be crossed by specific methodological means, i.e. empathy, subjective interpretation and even imagination. As Kalela (1972, 14) points out, reconstructing history is necessarily subjective as it depends on the investigator's judgements and subjective interpretation.
It is essential for historical research to examine things and events in a time perspective. However, it is not enough to place events in a chronological order. Timing of events in a calendar, i.e. the use of the physical time notion, is not the aim of historical research but a necessary tool for understanding the genetic relations between things and events. The interest is not in telling when exactly something happened but in revealing what else happened at the same time, before or after, in order to show how events came into existence and developed (Renvall 1983, 19). The emphasis is on building interpretation from contextual ground up, even so that a certain scepticism is felt concerning theory (Gillette 1985, 308).

By producing longitudinal, contextual accounts of the past, historical research is able to perceive and analyse the continuity and change of human affairs. Pettigrew (1985) notes that the longer we stay with an emergent process and the further back we go to disentangle its origins, the more likely we are to identify continuities instead of changes. To our understanding, reconstruction of histories over long time periods makes it possible to identify different periods in the dyad's development, recurrent cycles and breakpoints, periods of steady development and periods of transition etc. Tracing several buyer-seller relationships from different contexts could also offer insights into the specific conditions under which development tends to be steady or under which big changes tend to occur.

Events make up the matter out of which historians construct their reality. An event is a portentous outcome; it is a transformation device between past and future. Events, indeed, are our principal points of access to the structuring of social action in time (Abrams 1982, 190-191). Events are something that is observable and measurable. An event is capable of analysis in its own right and of understanding process (Dunkerley 1988, 84). Each explored event can act as an in-depth case study within the overall case study. The investigation of several events within one or several cases provides good opportunities for comparison and insight for theory development. Events in a single case can be compared through time, and events in
different cases and contextual settings can be compared at the same point of time.

Even when studying a five year old exchange relationship, we have to decide on what past events should be investigated. It might be fruitful to choose extreme events, like an especially expensive deal, or critical events (or social dramas as Pettigrew 1979, calls them) which have been decisive for the development of the dyad, like the appointment of a new purchasing manager. Many normal processes, actions and events only come to the surface when they can be compared to some extraordinary event. People tend to take "normal" things for granted, or they may even be unaware of certain aspects underlying their own activities (see e.g. Van Maanen 1979). The deviant events should not be overemphasized, however. The everyday life of a dyad, "the normality", may exist over most of the relationship's history. What is more, the relationship history might be investigated also at other time levels than l'historie événementielle. Social and economic cycles as well as long steady phases of development may be as "real" for buyer-seller relationships as the short and nervous events.

As sources of evidence historical research is dependent on archival materials produced by participants at the time, human artifacts like buildings and relics, and memories of people who participated in the event, obtained through retrospective interviews (Savitt 1980; Simmons 1985; Gillette 1985). A number of problematic issues may arise in this respect. First, the availability of data about the relationship's past is crucial. The rate of personnel turnover in organizations as well as the age and coverage of company files form practical constraints for retrospective studies. Second, documents may be easy to obtain, at least from the last five years or so, but they are still inadequate to describe emotions, attitudes and often also exact actions taken by the partners. Behavioural processes and the interesting transition periods may remain uncovered (cf. Gersick 1991, 31). Oral accounts, on the other hand, are fallible because of the memory loss and personal reinterpretation of past events (see e.g. Gillette 1985, 314; Simmons 1985, 290-291). The only way to withstand these problems is the
triangulation of evidence, which implies the use of multiple informants and both archival materials and interviews together in reconstructing relationship history.

Follow-up studies

We define follow-up studies as research which is oriented towards contemporary phenomena and happenings. In follow-up studies, investigators collect data on a real-time basis. Contextual variables and different levels of analysis, i.e., individual, group, organizational, network, and broader social and economic environment can be taken into account at the same time. As historical research is typically presented in narrative form as a flow of events, follow-up studies do commonly use numerical representations as well. Attitudes, opinions, and strength of different bonds, etc., can be measured on interval scales, which are amenable to quantitative time series, whereas historical studies with their retrospective perspective do not normally allow this kind of measurements. Follow-up studies provide opportunity for objectivity in its traditional sense.

In follow-up studies the researcher has better access to the object of study than in historical studies. The barrier formed by the time distance is absent as things are investigated at real-time basis. In addition to interviews and documents, observation becomes a possible method for data collection. As far as the distance between the researcher and the research object is concerned, two options are available. The investigator may remain an outside observer or he may conduct action research, where he takes part in the system's decision making and problem solving. Thus, the investigator takes the role of both a researcher and a change agent. This causes obvious problems from the research point of view, but also provides considerable advantages. By action research it is possible to get near the actual events and changes in buyer-seller relationships, to get a better understanding of processes by following them continuously and, what is more, to plan changes in relationships. Action research always has a teleological perspective and is more normative than positive in nature.
The action researcher places himself in the manager's frame of reference, which helps him to view time as a relational concept and to take it into account in theory building.

From the methodological point of view time may be treated in a random fashion or alternatively in a progressive way (cf. Wagschal 1982). In other words, it is possible to treat past, present or future as a sample of snapshots or as a progressively proceeding description from moment $t$ to $t+2$, for instance. Follow-up studies can be designed accordingly. They may be founded more on the random-like thinking which is compatible with the physical and linear time notion or, alternatively, on the progressive notion of time, which is easily connected with the cyclic and relativistic time conceptions.

The first kind of studies (we call them "snapshot studies" here) are interested in observing change in some specific aspects of the phenomenon by making measurements at certain time intervals. As Pettigrew (1985) has noted, the more we look at present-day events, the easier it is to identify change as compared with identification of continuities. Changes, as defined by Van de Ven (1987, 331), are empirical observations of differences in time on one or more dimensions of an entity. This implies that one has to define in advance what are the interesting dimensions and one also has to know the studied object relatively well. In other words, follow-up studies, when perceived this way, have to use some a priori theory or framework. The role of the researcher is to remain an outside observer.

In analysing how changes occur over time both regularly scheduled and periodic field observations are needed (Van de Ven 1987, 332). This is the case in studying buyer-seller interaction as well. Repetitive surveys and interviews provide comparative-static observations of the organizational concepts or dimensions being tracked over time. The difference on scores will indicate what changes occurred. But to understand how these changes came about, to grasp change processes,
their origins and the influencing factors, there is a need to collect intermittent real-time data as well. This would involve, for example, observing key committee meetings, decisions or critical events, and conducting informal discussions with key organizational participants (Van de Ven 1987, 332-333).

Instead of measuring changes at regular intervals the "progressive" follow-up studies are more interested in continuous following of actions and events in some specific context. In these studies it is possible to observe how people act, react and re-react and how they go about solving problems in interaction. One looks at how events follow each other and how business cycles emerge over time. This approach is suitable for explorative studies and for the generation of theoretical ideas. Long-term commitment and close contact with the interacting parties is required. Action research is a relevant possibility.

Follow-up designs are particularly suitable for the study of interactive industrial relationships over time and from the point of view of both parties. Nevertheless, several issues have to be considered carefully for you to benefit from real-time methodology in exploring processual, dynamic phenomena.

(1) What is an appropriate interval for data collection? If the interval is too long, important aspects of the process of interest will not be captured (see Kimberley, 334).

(2) How many data collection points are necessary, or how long time should one stay with the relationship? Two points of data collection form a natural minimum but are rarely feasible when the study of processes is concerned. They might be used, however, when the interest is in examining the consequences of a critical episode or event (Kimberley 1976, 337). In general, the longer one stays with the relationship the more probable it is that one becomes familiar with the studied relationship and is able to compare several events of the same kind. This is likely to increase the quality and reliability of the research results.

(3) How to capture a rich description of relationship dynamics also in snapshot studies (see e.g. Miller & Friesen 1982, 1021)? Advantages of
a longitudinal study are easily lost if the study design is not kept flexible enough to handle surprises, unexpected events etc. The observation interval has to be changed according to the development of the studied relationship, and several kinds of data from anecdotal histories to economy-level trends can be used to supplement the repetitive measurements.

(4) How to get access to dyads? This is always a problem for a processual researcher, because interference with people's life and business happens on a continuous basis. Knowledge of real-time events, and future plans are easily perceived as delicate or confidential by business people. Long-term commitment to the studied relationships is needed, which is expensive, time-consuming and often a disadvantage from the point of view of a researcher's personal career.

**Futures studies**

Futures research provides still another kind of methodological perspective for studying buyer-seller relationships. Futures research has to be separated from predictive studies which extrapolate future prospects from historical trends. There are three basic assumptions made in futures research (Amara 1981):

(1) Future is not predictable
(2) Future is not predetermined
(3) Future can be influenced by human actions and choices.

This is compatible with the assumptions of the interaction approach. Interacting firms and individuals are viewed as active partners, who act and develop the relationship according to their individual and mutual future expectations. On the other hand, relationships are vulnerable to unexpected events and changes in the business environment and to actions taken by other network members.

The future is a problematic object for scientific study because there exist no facts about it. The future is not observable (see e.g. Ketonen 1985). The study of the past is based on physical products - books, journals, buildings etc, whereas the study of the future is based on abstract speculation, subjective intuition and imagination. This does not mean, however, that historical knowledge is more certain
than knowledge about the future. Instead, uncertainty seems to be asymmetric; it increases the further off we move to the past or to the future. And, what is more, the study of the past ends in history, which means that the results can never be verified, whereas the study of the future ends in the real events in the future against which the scenarios can be compared (Wagschal 1982; Meristö 1985).

Similarly to historical studies, which are bound to the present time and influenced by ideas of the future, futures research is also tied to the other sequences of time. Future studies are always based on our present ideas of what the future might look like and these, on the other hand, are influenced by our knowledge about past and present. Future research is necessarily subjective but also normative. The possibility to influence the future by choices and actions inevitably raises the question of aims and values.

Future orientation is important for practical management. The influence of the present decisions can be seen in the future. Futures research has become an important part of the strategic planning in a firm. The environmental changes are so rapid and surprising that one cannot act according to the earlier decision models. The only way is to create flexibility for unexpected events (Meristö & Salonen 1986).

The scenario method is a useful tool for strategic planning, by which managers can prepare themselves for future uncertainties (Meristö 1985, Porter 1985). It involves developing at least two scenarios which are mutually exclusive alternatives each portraying essentially different future trends, events and environments. A scenario is a script of the future which drafts a firm's future business environment and the possible actions of its competitors, suppliers, customers and other interest groups in that environment (Meristö 1985). There are at least two different ways to look at the future. Developmental scenarios are based on a progressive time conception and describe the different flows of events that lead to the future. Situational scenarios, instead, are based on a random time and describe future situations as snapshots (Wagschal 1982; Hirschorn 1980).
Thus, in developing scenarios the focus is on identifying uncertainties and critical events in a firm's future environment. The differentiation between three time levels (see Odén 1989), the slow progression, cycles and events, might be a helpful tool in this endeavour. In industry scenarios, for instance (see Porter 1985, 451-453), one tries to identify uncertain structural variables and discontinuities that would have a significant impact on industry structure, such as a revolutionary technological change. It is these uncertain variables, not the constant or predetermined variables, that actually determine the different scenarios.

Future studies have typically focused on structure rather than on process. There are no processes out there to be studied. Processes are created by human actions and events only in the future. As Porter (1985, 446-447) notes, scenarios have usually been developed at macroeconomic and macropolitical level or at the corporate level in diversified firms. Therefore, scenario analysis would probably best apply to the study of networks surrounding single firms, but it could also be considered in strongly interdependent buyer-seller dyads, e.g. in technologically dependent dyads or in JIT-relationships.

In table 1 we describe the three methodological approaches in the light of the discussed issues. The differences presented must no be viewed as clear-cut. The approaches are not mutually exclusive. For instance, in follow-up studies one cannot escape the past of the relationship, which implies that also retrospective data collection is often needed. The same logic applies to historical and futures studies. The relational time conception can be used as a heuristic tool in each of these methods.

Conclusions and implications for research

In processual studies time is an essential element of interest. In this paper we have presented ideas of how time might be looked upon and how it could be related to the study of buyer-seller relation-
ships. We want to emphasize the following points in this respect.

Interaction researchers have so far paid little attention to time and its implications for theory building and methodology. More time consciousness is required to achieve a processual theory of business relations. Time should be incorporated into theory building in a more explicit and multi-dimensional way. Theory should be expressed in dynamic terms, taking into account the different dimensions, levels and contextual settings of time. Various dynamic tools, like cycles, breakpoints, duration, simultaneity and regularity could also help in describing the dynamics of interaction.

In developing a theoretical approach, its ontology, like the processual assumption of interaction approach, should be in congruence with the type of theory constructed and the methods used. If we are to study processes and if our aim is to construct scientifically and practically strong process theories, we should also use longitudinal methods in empirical research. In this paper, we have suggested three methodological approaches: historical, follow-up and futures research, all of which seem to add to our knowledge of interactive relationships in business. Historical analysis could be well suited for the study of longer cycles, periods and breakpoints in buyer-seller interaction. Follow-up studies, on the other hand, can very well be applied for the study of actions, specific events and shorter cycles. Futures research, with the specific emphasis on business environment, could be especially relevant from the managers' point of view, when they plan and prepare for the firm's or the dyad's future. Retrospective analysis, participatory research, "snapshot studies", and scenario methods are all fruitful ways to build up a better theory of how business markets function and change over time.
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