

CONNECTING TEMPORAL AND SPATIAL DIMENSIONS IN BUSINESS PRACTICE - WITH APPLICATION TO GLOBALIZATION OF MARKETS

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Abstract

The purpose of the paper is to develop a conceptual framework for analysis of time/space configurations in a business practice perspective on network dynamics. We regard business practice as performative in the shaping of networks. Thus we see markets as socially and materially constructed, stabilized and changed, in complex, never-ending processes. In these processes the construction of time and space is crucial. We use “globalisation of markets”, a phenomenon where a connection between time and space is evident, to illustrate our conceptual discussion.

Key words

Time, space, business practice, dynamics, performativity, networks, globalization

INTRODUCTION

Processes in business networks by definition include *temporal* and *spatial* dimensions. This paper is a continuation of our conceptual and empirical research on temporality of strategic actions (Andersson and Mattsson 2010). In this paper we focus on spatial dimensions of network dynamics and how space and time are related to each other in business practice. We use “globalisation of markets”, a phenomenon where a connection between time and space is evident, to illustrate our conceptual discussion. Our standpoint is that markets (networks in our perspective) are *performed*, i.e. shaped and reshaped in business *practice*. Thus we see markets as socially and materially constructed, stabilized and changed, in complex, never-ending processes. In these processes the construction of time and space is crucial. Business practices affect and are affected by network dynamics. The time/space configurations of business practices are in focus in the paper and are viewed as indirectly related to network dynamics.

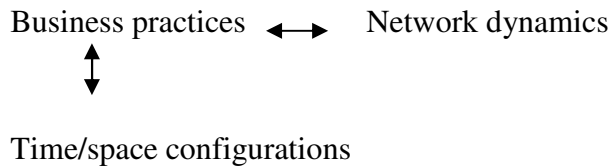


Fig 1. A conceptual framework to study network dynamics (e.g. globalisation of markets)

PURPOSE AND DISPOSITION

Our purpose is to conceptually discuss how time and space are interrelated in business practices that affect and are affected by (re)shaping of markets. The (re)shaping process that we focus is globalization of markets.

The disposition is as follows. First, we present a business practice perspective on network processes. Second, we present our conceptual framework as regards time and space and some ideas about relations between time and space in network processes. The analysis of temporality is abstracted, and somewhat revised, from our presentation in Andersson and Mattsson (2010). Third, we apply the conceptual framework to some aspects of the “globalisation of markets” phenomenon. Finally, we reflect on further research, based on the framework presented, on business network dynamics.

A BUSINESS PRACTICE/PERFORMATIVE APPROACH

A *practice/performative* approach emphasizes how social order emerges as a consequence of recurrent, interconnected, and routinized behaviour of social actors. 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. Even if practices to an important extent comply with what is considered as normal behaviour and are more or less routinized, they are not homogeneous. New practices evolve, disperse and might even become dominant, replacing established ones.. The market is thus not a priori given. Furthermore, market dynamics is to an important extent endogenously driven.

The inherent variable and changing boundary setting as regards actors, processes, relations and networks, the complexity of network interdependencies and the actors’ differentiated interpretations of network processes and structures is challenging for researchers and of course for managers to understand and to act upon. However, problems caused by this inherent complexity are somehow handled in practice. This argues for a practice approach if we want to understand temporal and spatial dimensions, and how they are connected in network processes.

A practice approach, based on a branch of economic sociology (STS/ANT) has since a decade been pursued also by IMP researchers (see Araujo et al. forthcoming, 2010 for references).

The market practice framework we apply is the one proposed by Kjellberg and Helgesson (2007). Three broad interlinked subcategories of market practice are distinguished in this framework.

Exchange practice refers to all activities that are engaged to perform exchange between actors, as individual transactions and as episodes in exchange relationships. In exchange practice, we include also activities that aim to affect structure of markets, what may be termed strategic actions, such as market entry and exit, M & As.

Representational practice refers to activities that serve to describe and analyse markets and market behaviour, including the situation of individual actors, how they are related to other actors and how they calculate effects of various exchange practices. Representational practice includes development and use of such information for analysis and decisions in a firm's formal information systems but also related to individual actors' perceptions and cognitions about the market ("network theories", "network pictures") that are more or less based on the formal information. Representational practice might well include actors how adhere to a micro economic, arms' length perspective on the nature of markets.

Normalizing practice is aimed at shaping and implementing norms/objectives for how a market should be shaped and function at a societal level as well as at an individual actor 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, at the micro-level, includes activities to develop and apply individual firms' objectives, strategies and control systems in the firms, and norms for inter-organizational interaction.

These practices are linked to each other by chains of *translations* (Callon 1992). This is a of course a very important attribute of the approach. Kjellberg and Helgesson (2007) stress the entangled nature of the three practices, conceptualizing "markets as networks of practical translations". Below we give some examples:

Normalizing practices produce rules and tools that are used in representational practice. Representational practice produces market descriptions that can be drawn upon in normalizing practice, e.g. reformulation of strategies and objectives.

Representational practices, such as market studies and economic calculation affect exchange practice, e.g. pricing and sales organization and experiences in exchange processes do also feed into representations of customers, competitors etc.

Exchange practice translates into normalizing practice e.g. cooperation between competitors might activate implementation of competition law or interest social actors to change norms.. Vice versa, re-regulation of markets are aimed at, and affects exchange practices.

Obviously, chains of translations include interaction between all three practices. E.g. norms for accounting and financial evaluation may translate into representations of the profitability of different customers, suppliers, projects etc. that in turn translate into differences in exchange practice as regards different customers.

TIME: TEMPORAL ORIENTATION OF ACTORS AND TEMPORAL PROFILES OF ACTIVITIES

We use the concepts "orientation of actors" and "profiles of activities" for both the temporal an spatial dimensions. "Orientation" refers to perceptions and interpretations by actors and "profile" to attributes of activities. Orientations are seen as partly influencing profiles.

Thus, temporal concepts selected for our framework are temporal orientation of actors, with reference to Ancona et al. (2001) and temporal profile of business activities, with reference to Sztompka (1993).

Temporal orientation refers to perceptions and interpretations of the market, including market dynamics. Included in actors' temporal orientation is consideration for different *time horizons*, i.e. how far in the future and how far in the past actors are oriented (Sztompka 1993; Pieters and Verplanken 1991), *temporal focus* i.e. with what urgency short or long term horizons are considered and *temporal linkages*, i.e. how an actor views the linkages between past, current, and future developments, e.g. the effect of short term actions on conditions for long term developments.

Temporal orientation might differ, more or less, between actors, due to their intra-organizational position in the firm and position in the network. Temporal orientation is thus also influenced by spatial dimensions of the perceived market, i.e. in our perspective, the network. The spatial aspects will be treated in a subsequent section.

Temporal profile captures the overall temporal characteristics of an activity (Sztompka (1993), e.g. a strategic action). An activity has its own particular temporal profile consisting of a set of temporal dimensions linking the activities to time. In this paper we identify synchronization, coordination, sequencing, timing, measuring, differentiating, speed, and duration. Temporal aspects of actor behaviour are interdependent (e.g. synchronization, timing, and sequencing), socially constructed, and *manifested in actors' business practices*. Thus, an actor's temporal orientation influences its own and other, connected actors' perceptions of, and actions related to, time. Furthermore, the temporal profiles of activities are strongly linked to the actors' exchange activities, including strategic actions that influence network structure and processes. Below we briefly characterize the dimensions of temporal profiles that are included in our framework for later discussion in relation to spatial dimensions and to globalisation.

Synchronization: Actions in business markets require collective action, interaction and communication. The greater the interdependence between actors, the greater the necessity for temporal synchronization.

Coordination: The division of work leads to a need for coordination between activities by interaction between actors controlling separate activities.

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 in an overall process.

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 market conditions change, sometimes substantially, over time.

Measuring: Both internal business operations and exchange processes between firms, are in many respects determined by various ways of measuring and dividing up time. Changes in a firm's organization and strategies, and in its network relationships might affect and change stable structures of measuring.

Differentiating: Firms divide up and demarcate time to allocate certain resources to certain activities during certain periods of time while spending other resources during other periods of time.

Speed: Speed relates business actions to time. The speed may be perceived as high (or low). High (or low) speed may be viewed as preferred for certain strategic market actions.

Duration: Actions are related to episodes of some duration during which activities may be carried out, with different and varying speed.

SPACE: SPATIAL ORIENTATION OF ACTORS AND SPATIAL PROFILES OF ACTIVITIES

We introduce two general spatial concepts related to business practice: *spatial orientation of actors* and *spatial profile of activities*. *Spatial orientation* captures how actors perceive network structures and processes in which they are embedded. Spatial orientation concerns the following dimensions (adapted from IMP literature):

First, an actor's *network horizon* i.e. how far from its own position in the network it considers network conditions. This is not a physical distance between two points in space but a subjective delimitation of directly and indirectly connected actors and relationships. Second, an actor's *network differentiation*, i.e. how, and how much an actor differentiates, within the network horizon, between actors (e.g. between competitors and customers, between their resources (e.g. small or large) and between their relationships (close or arm's length). Actors who use the concept market segmentation consider one type of network differentiation. Third, an actor's *focal network positioning* (e.g. if it perceives space from a "home market", a "foreign market" or a "global market" network position)

Spatial profiles of activities in our framework concern the following dimensions (these dimensions are derived by us from general network perspectives):

Distance describes how far from its origin in the network, in terms of use of resources, that an activity is aimed to influence the network. E.g. an advertising campaign originating in Sweden aimed at customers in a nearby Nordic market and import to a factory in Sweden from a supplier in China have different distance profiles.

Extension describes to what extent an activity is dispersed to counterparts in a number of network positions. E.g. the advertising campaign is aimed at audiences in several countries. An import agreement concerns all of buying company's factories in Europe.

Coverage describes how large a part of the network to which activities have been extended that an activity affects or is intended to affect. E.g. a firm that has extended its export to a new national market might cover that market through resellers in few, many or all sub regions of the market.

Integration describes to what extent activities carried out in different locations are explicitly integrated with each other. E.g. integration within a so called supply chain involving actors in many locations. Pursuing a "global brand" policy that integrates communication and product development activities

LINKING TIME AND SPACE

Actors make sense of the interdependence between time and space with reference to their "network theories", applied in practice. Such theories, that are systematic beliefs and cognitions about network structures, processes and interdependencies (Johanson and Mattsson 1992) include temporal and spatial aspects of network processes and influence business practice. Network theories include actors' "network pictures" i.e. its perceptions and cognitions of a specific network, with a predominantly spatial representation (e.g. Henneberg et al. 2006). Figure 2 illustrates interaction between temporal and spatial dimensions in time/space configurations referred to in Figure 1

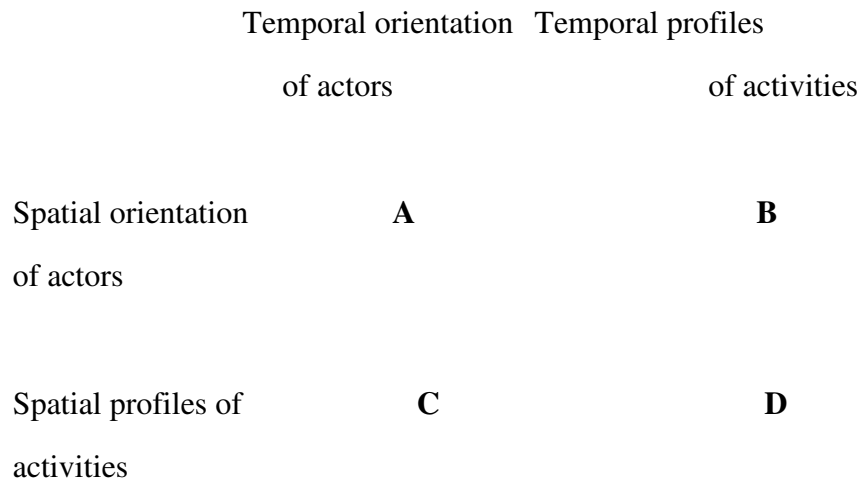


Fig 2 Types of interaction in time/space configurations

Overall interaction between time and space, mediated by application of network theories in business practice, involves interaction (A) between temporal and spatial orientation, (B) between spatial orientation and temporal profiles, (C) between temporal orientation and spatial profiles, and (D) between temporal and spatial profiles of activities. Some illustrations below. We use more examples later, with reference to practice and globalisation.

A.Temporal orientation might differ between actors, due to their different intra-organizational positions and their different network positions. Actors’ network experiences, cognitions, strategic intentions etc. are aspects of their spatial orientation, thus temporal orientation is influenced by spatial orientation. There is also an influence from temporal orientation on spatial orientation. E.g. an extended time horizon is likely to influence both network horizon and network differentiation.

B. A wider network horizon may lead to more focus on differentiation in temporal profiles of activities.

C.A temporal orientation to focus on quick action may result in a spatial profile of actions of nearby rather than more distant activities that may be considered to take longer time to effectuate.

D.Spatial integration of activities leads to more synchronization, coordination and more focus on sequencing. Speed as a dimension of temporal profiles influences distance and coverage.

To know the extent to which the links that have been exemplified above are found in business practice we need to focus on business practice in particular situations. Even if it is safe to say that time and space interact in business practice thereby performing the market it is difficult to know outcomes because network theories vary between actors and might be in conflict with each other. Routines have an important role to stabilize business practices, but changing practices in parts of the network e.g. related to globalization, or different stabilized practices in different parts of the network, e.g. related to mergers, new corporate strategies or technical change, create uncertainties, ambiguities, conflict between network theories, etc. that serve to destabilize practices.

BUSINESS PRACTICES: TIME,SPACE AND GLOBALIZATION OF MARKETS

Globalisation of markets

By globalization of markets is usually meant that spatially dispersed markets become increasingly interdependent. Business practices in one market are dependent on practices in other markets. Business practices also to an important extent concern several markets and might become more homogeneous, even if such a change process, as we argued above, involves ambiguities and conflicts.. Exchange across market boundaries becomes increasingly important as networks become increasingly overlapped. Market boundaries, as reflected in representational practices, might be redefined, e.g. from national to regional to inter-regional, even global market definitions. We can see globalization as an overlapping process by which spatially dispersed actors, activities and resources become increasingly more interdependent in time and space. The endogenous nature of globalization that we explore in the paper implies that the behaviour of individual actors is of prime importance. The original Uppsala model (Johanson and Vahlne 1977) explained the time/space configuration of the individual firm's internationalisation as an interaction between learning and commitment of resources and was explicit about sequencing and distance. Later Uppsala studies explained internationalization in a network perspective, focusing more on later stages in internationalization such as the role of subsidiaries own internationalisation, internationalization of the "second degree" (Forsgren 1989) and the importance of network embeddedness for learning (Johanson and Vahlne 2009). These studies focus more on space than time, even if they are concerned with how later internationalization stages differ from earlier and therefore contribute to knowledge about globalization of markets. Johanson and Mattsson (1988) more explicitly analyse how conditions for further internationalization of a firm differs depending on when it started in relation to how internationalized the market context is. Network interaction over time is also explicit in studies about the role of customers' internationalisation for the internationalization of suppliers to such customers (e.g. Sharma 1991). More recently identification of SMEs as rapidly internationalizing entities (so called Born Globals,) explicitly relates time (temporal focus, speed) and space (network horizon, extension). Interpretation of merger and alliance processes as performative for globalization are more or less explicit in e.g. Hertz (1993), Havila and Salmi (2000) and Andersson and Mattsson (2006). The latter especially focuses on timing and sequencing in a spatial perspective. In international marketing literature, much interest has been devoted to degree of integration of marketing (sales, communication, distribution, pricing) across space. Supply and logistics literature is much occupied by temporal and spatial concerns in an international perspective.

Below we discuss how the different practices and translation between them relate to time and space.

Normalizing practice: time and space

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 and space as is also corporate strategies. 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 in an area and if globalized will influence speed, extension and coverage. Accounting standards and financial market regulations stipulate or influence all the temporal profile dimensions mentioned, i.e. 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, speed and suggest spatial profiles of strategic actions.

Proposed changes in formal norms such as laws 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 and network 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. Such problems are relevant to consider in performing globalization.

Representational practice: time and space

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. Obviously these standards are time and space defined, such as quarterly reports on economic developments in different markets. Planning of logistics, of product development projects, of new market entries, involves representations of markets and temporal as well as spatial 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, related to an actor's network theory, need to be considered. In a globalization perspective representational practices in different parts of the network interact, e.g. in terms of learning and development of new practices. Temporal and spatial orientation affect 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 in the wider network may or may not be represented by a similar change in a local network. Some actors may, for example, experience growth in times of a general recession. Actors' network theories and to what extent such theories are aligned with theories underlying the formal representational practices are important.

Exchange practice, time and space

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. Network horizons, network differentiation and network integration influence exchange practices, e.g. in terms of development of the content of exchange relationships in terms of technical information, perception of the need to also include indirect relationships in the exchange practice, and the opportunities for changing practice after a merger. Separate interaction processes need to be synchronized and coordinated in the network during globalization or as adaptation to a globalizing network context. Network orientation of involved actors and spatial profiles of the activities are important to achieve such coordination. 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. Spatial dimensions, such as distance, extension and integration are important because, e.g. because they affect what

practices are confronted and what ambiguities and interaction problems have to be solved between actors.

Temporal and spatial aspects of translation between practices

The three types of practices are, as discussed above, interdependent. Translations occur over time and space. Translations contain temporal and spatial attributes. Translations may affect other attributes of a practice but not necessarily in pre-conceived ways. Some examples:

a. Translation between normalizing and exchange practice: EC competition law is aimed at reducing synchronization and coordination between competitors across all European markets. A strategy to globalize a firm by mergers will affect exchange between the merging actors and their distributors.

b. Translation between representational and normalizing practice: Competition authorities want to prohibit mergers that result in dominant positions in markets. Spatial orientation of policy makers in terms of network differentiation and network horizon in their representational practice influence application of normalizing practice in individual merger cases.

c. Translation between representational and exchange practice: Heterogeneity and asymmetry of representational practices between actors as regards the temporal and spatial aspects of their corporate strategies create tensions between interacting actors, for example regarding the timing, duration, extension and integration of a common investment project that may affect future globalization.

d. Translation between exchange and normalizing practice: Experiences from exchange practices, e.g. regarding temporal horizon and temporal differentiation as well as network horizon, coverage and integration might stabilize a normalizing practice favouring a continued internationalization strategy.

e. Translation between normalizing and exchange practice: A corporate strategy document emphasizing the importance of global sourcing, might affect different actors in the corporation differently. Some will agree with the document's analysis, others might disagree.

METHODOLOGICAL CHALLENGES

We suggest that by linking a narrow perspective of business interactions with a focus on specific business 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 space and of the ways in which various dimensions of temporal and spatial profiles become part of the structuring of business activities and interaction in networks. For this we need to focus on specific change processes, e.g. a specific effort towards "global sourcing" and not more general network processes, e.g. a general development of globalization.

Reliance on chronology and sequentiality in traditional business research narratives may make 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 and space 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 engaging in business action? What are the actor's network horizons and how do these change over time. To what extent do they overlap?

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 avoid to bias our understanding of how actors' make sense of the network by imposing our own,

preconceived view of reality and concepts to use? How can we achieve, in business narratives, presence in business action? To achieve this, 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.

Existence and access to information in a practice study of temporality is obviously problematic, also in terms of time and resources for research. Initially a process in focus and actors in focus have to be defined. As the process and the information about it evolves, information needs might be extended in time (in the past, in the future) and in space (more actors, relations and processes).

In their dissertations on shaping of markets, Helgesson (1999), Kjellberg (2001) and Mattsson (2004) used archival and other printed sources, for their practice studies, with no or minimal interaction with actors. However, existence of and access to information of temporality dimensions in a study based on printed sources is likely very limited, even if the end point in the process studied is in the past. Practice researchers need to interact with network actors. These might not only be business actors immediately involved in the processes but also actors belonging to other social sectors such government, academia, media. Hoholm (2009) who studied an innovation process, on had a very close contact with the processes. He conducted an ethnographic study, in fact following the latter part of the process as it evolved.

Since all the three types of practices and translation between are involved, a study will either be unmanageable or there is a need for the researcher to refrain from following all possible trails in searching for how temporality interacts with market shaping. But practice is unwieldy since it is not applying the same disciplinary borders as in academic research. Finance and accounting, production, technology and law might be as important as marketing as subject areas to be deployed in a practice study. In Araujo et al. (forthcoming) it is found that materiality/devices/measurements matter, that theories as well as political actors have performative roles. Obviously, the practice researchers need to gather and analyze information in these categories, in fact to let them be influential for selection of research problems, phenomena and processes to be studied. Heterogeneity and complexity of markets need to be recognized, influencing the research process.

As we have mentioned above the recent *network picture* (NP) research stream within IMP relates to our interest in business practice. NP research, focused on actor' perceptions of the network in which they are embedded, has put much more emphasis on space than on time. Predominantly the studies are static. But there are also some consideration of dynamics and of time. Two recent dissertations bear witness. Abrahamsen (2009) uses NPs as a means to understand network change, more specifically how NPs influence actors' efforts to change network positions. Ramos (2008) develops NPs as a research device. A "time span" dimension describes an aspect of "temporal orientation" as does the "stasis" dimension that differentiates between perceptions of the context as evolving or static. Inherent in the NP concept is a focus on representational practice, with more or less explicit reference to exchange and normalizing practices. The NP research has a constructivist flavour and it would be interesting to further develop the method to make it more practice/performative oriented, more concerned with temporality, be more explicit as to the theoretical content of NPs including the role of non-network theories of markets and strategies as aspects of representational practice.

CONCLUSION

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. Interactions may over time 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 time/space configurations have central roles in both types of processes, and can be interpreted as a concern for business practice. We suggest that by linking a narrow perspective of business interactions with a focus on market practices including not only exchange practices but also normalizing and representational practices, we might get 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 might also get to know more about the relativity of actors' temporal orientations.

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