

Organizational Inscriptions of Network Pictures: A Meso-Level Analysis

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Abstract

This paper deals with manifestations of managerial cognition, thus elaborating on a neglected area in business networks and management. While previous studies have concentrated on business networks from entire companies' or individual persons' perspective, this paper operates on a focal company level (meso-level) and is concerned with how interactive sense-making is represented in organizational artifacts, which in turn aim to guide organizational activities. The paper develops and tests a dimensional model of tangible traces of organizational network pictures, which thereby becomes a means to capture managers' interactive sense-making of a company's network. We found manifestation of managerial cognition in the following areas: systems, processes, budgets, strategy, and organization, which in turn influenced the inclusion/exclusion of interaction partners, the interaction mode, and resource allocation.

Keywords

Manifestation, Organizational Traces, Managerial Cognition, Network Pictures, Meso-level

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Introduction

This study takes its motivation from a neglected area in business networks and management - the manifestations of managerial cognition. The study operates at the level of a focal company and is concerned with understanding how interactive sense-making is represented in organizational artifacts such as processes, structures, or managerial rules and principles within the company. 'Organizational network pictures' which are indicative of an amalgamation of the individual views of involved managers provide a useful platform to investigate how the company sees itself within its surrounding business network (Mouzas, Henneberg & Naudé, 2008); they also provide a valuable basis to investigate companies' networking (Ritter, 1999). Manifestations of such network pictures represent tangible traces within the organizations and thus guide an understanding for underlying network pictures, and also aim to guide the companies' networking activities. Hence, our study tries to advance the analysis of business networks through a better understanding of organizationally inscribed managerial cognition that directs managerial activities of a company (Smircich & Stubbart, 1985). For this purpose, we analyze a company case study, covering managerial and network dynamics over time, to develop a dimensional model of organizational network pictures.

The extant literature on business marketing has developed concepts such as the activity-resource-actor model (Håkansson & Snehota, 1995) to grasp network constellations and the underlying business and interaction logic which describes them. Research on strategy has also introduced strategic groups to identify business market constellations (Athanasopoulos, 2003; Hodgkinson & Johnson, 1994). Previous research in organizational behavior has addressed the issue of managerial cognition by examining the cognitive maps managers use to comprehend their choices, options and anticipated consequences of strategic activities. Similarly, business marketing theories employ network picture methodologies to understand the subjective understanding of networks on which individual managers build their networking activities (Ford *et al.* 2003; Ford & Redwood, 2005; Henneberg, Mouzas & Naudé, 2006; Ford & Ramos, 2007). The limitation of previous research, however, is that it relies on subjective views and that it does not make use of tangible organizational inscriptions at a company level. Studies at this level (i.e. a focal company and its inscribed network representations) have been recently identified by Henneberg, Naudé, and Mouzas (2010) as an important aspect of the development of research on sense-making and cognition in business networks.

Companies are embedded in a complex system of exchanges and interactions with suppliers, customers, competitors, regulators, and other third parties (Achrol, 1997; Achrol & Kotler, 1999; Parolini, 1999). While some of these exchanges or interactions are more important to a focal company than others, the managerial activities any organization uses are contingent on the actions, reactions, and perceptions of other actors

in such business networks (Ford & Håkansson, 2006). It is of pivotal importance for the success of any company that its managers have an appropriate understanding of these contingent relationships within their exchange network. The challenge we address in this study relates to the fact that the interactions and relationships of a company cannot be fully understood simply by referring to subjective belief systems of managers (i.e. network pictures), nor can a systemic understanding of the overall network complexities explain the deterministic character of strategic actions. The proposed dimensional model of organizational network pictures, therefore, contributes to an alternative approach, operating on the meso-level of a focal company within a network, to investigate business markets.

In the following, we provide an overview of existing concepts and methods used to investigate business markets. By doing so, we argue for the importance of the meso-level. Following on from this, we will introduce the rationale for understanding organizational network inscriptions. We will then introduce our case study, from which we will subsequently derive a conceptual discussion of the dimensional model by elaborating on the essence (i.e. dimensions) of organizational network pictures as found in our case research. This will lead us to a full description of the traces left by subjective network pictures via the manifold interactions of managerial practice in different areas of the case company. Finally, we will synthesize the findings, and relate our new dimensional model to research in the area of business markets.

Understanding Business Markets

Approaches to understanding business markets have been developed in different fields of research, e.g. strategy as well as marketing. Generally, one can distinguish three different levels regarding theories and concepts relating to business markets. On a *micro-level*, individual managers within an organization are the focal point of analysis. Their understanding of how a company is embedded in interactions and relationships with other actors in the network forms the methodological anchor to research business markets. In this view *networks are individually constructed* by managers. Diametrically opposed to such a perspective is the classical network approach. Here the structures on *macro-level* serve as the unit of analysis, i.e. business markets are understood as systems in which individual managers or companies are mere contributing agents. Such a research view tries to overcome the subjectivity of the micro-level by providing a synthesized understanding of *networks as integratively constructed* by researchers. Thus, no objective network exists but the network construct is based on the analytical perspective of the researcher (and the network models used to facilitate such a perspective).

We propose that these two dominant approaches to understanding business markets can be complemented through a perspective of *networks as socially constructed* by the interactions between managers. By this we refer to the *meso-level* of an organizational entity, e.g. a company within a business network. While companies, in contrast with individual managers, do not hold ‘network views’ and do not ‘network’ (this would result in the fallacy of reification of the company) (Meindl, Stubbart & Porac, 1994), traces can nevertheless be found in the organization which help make sense of the constituting characteristics of the embedding network as experienced by the entirety of the relevant

individuals within the company. These traces are the manifestations of interpersonal interactions and decisions within the company which amalgamate the different micro-level beliefs regarding the business network (Mouzas *et al.*, 2008). While we will introduce existing concepts relating to these levels of understanding business networks, our proposed dimensional model of organizational pictures will provide an initial attempt to operationalize our approach at the meso-level.

Micro-understanding of Business Markets

Understanding the subjective construction of the business environment through the sense-making of individual managers represents an area of research which has recently attracted considerable interest within marketing theory (Ford *et al.*, 2003) and beyond (Smircich & Stubbart, 1985; Castells, 2000). Three different methodological groups of network pictures, cognitive maps, and cognitive strategic groups can be distinguished.

The construct of *network pictures* is used to conceptualize the process of individual sense-making for the understanding of management practices in terms of how organizations manage in networks (Borders, Johnston & Rigdon 2001; Holmen & Pedersen, 2003). Within the IMP group, the dictum holds that actors such as companies cannot ‘manage *a* network’ but can only ‘manage *in* networks’ (Ford *et al.*, 2003). However, any construct that characterizes such managerial networking activities (which includes decision-making and realization of decisions as well as cognitive aspects such as gaining an understanding of the network, its actors and interactions; Halinen, Salmi & Havila, 1999) is based on subjective cognitive structures, so-called schemata which enable ‘sense-making’. Thus, it is assumed that reality is, in a certain way, fundamentally mind-dependent. This view, based on Kant’s idealism, serves as a starting point of our theoretical discussion (Kant, 1781/1998).

The resulting network pictures are defined as the mental representations of the network characteristics which individual managers perceive as important for their own sense- and subsequently decision-making (Ford *et al.*, 2003; Ford & Håkansson, 2006; Henneberg, Mouzas & Naudé, 2006), i.e. network pictures are the actors’ ‘network theories’ (Johanson & Mattsson, 1992). They encompass beliefs and attitudes which actors hold about the complex inter-organizational exchanges and interactions within which their management actions are embedded (and which provides opportunities but also restrictions for their marketing options). These are subjective and dynamic cognitive representations of the network environment and what it ‘means’ for the individual managers. What is included in such a network picture and what is not, how aspects of it are linked, where ‘boundaries’ are drawn, all these questions are specific to the subjective judgment of a manager about what is important (Ford & Ramos, 2006; 2007). Such individual importance can be judged to be general or specific, e.g. with regard to context, task, or time. Henneberg, Mouzas and Naudé (2006) have shown that different structures of network pictures exist, depending on the individual’s overall goal orientation. Furthermore, network pictures are more than just pictorial representations of inter-organizational relationships but are cognitive maps in the sense of multi-layered schemata which are based on spacial relations as well as textual connections (Henneberg & Rohrmus, 2006; Ford & Ramos, 2006). Recently, the concept of network pictures has

been applied to research in business marketing, e.g. to understand changing perceptions in merger and acquisition situations (Öberg, Henneberg & Mouzas, 2007), to analyze change in networks (Abrahamsen, Naudé & Håkansson, 2007), to compare situational contingencies (Ford & Ramos, 2007), or to optimize a business network segmentation approach (Henneberg, Mouzas & Naudé, 2009).

Besides the IMP Group's research on network pictures as the subjective micro-understanding of business markets, there exists literature on organizational behavior which has proposed similar concepts on micro-level, e.g. research on *cognitive maps* used by managers (Eden, Ackermann & Cropper, 1992; Fiol & Huff, 1992; Hodgkinson, 1997; Huff, 1990; Weick, 1990a). Furthermore, issues around organizational sense-making as discussed at length by Weick and colleagues are also relevant on this level (Weick, 1979; 1990b; 1993; 1995; Daft & Weick, 1984; Weick & Roberts, 1993). Another strand of research looking at subjective and micro-level analyses is presented in the strategic management literature, particularly studies on *cognitive strategic groups* which analyze the perceptions of top managers regarding their business network, particularly their perceived competitive environment (Bogner & Thomas, 1993; Bougon, 1992; Bougon, Weick & Binkhorst, 1977; Daniels, Johnson & Chernatony, 2002; Lyles & Schwenk, 1992; Hodgkinson & Johnson, 1994; Porac, Thomas & Baden-Fuller, 1989; Stubbart, 1989).

Macro-understanding of Business Networks

Besides an analysis of network structures from a subjective point of view, i.e. focusing on individual managers, there exist research strands which take the network characteristics *per se* as the concept phenomena in question. Within the strategic group literature 'sub-markets' are identified which are competitive network structures (Athanasopoulos, 2003; Hodgkinson & Johnson, 1994; McNamara, Deephouse & Luce, 2003). These are analyzed via an understanding of some of their objective features, e.g. similar capability sets and similar 'rules of engagement', where they share structural and behavioral characteristics (Duysters & Hagedoorn, 1995). Following concepts from industrial organization economics, it is assumed that the companies of a strategic group isolate themselves competitively from the outside via colluding behavior, by forming a network (Bogner & Thomas, 1993; McNamara *et al.*, 2003). While not equivocal, studies of performance related to strategic group networks showed that different performance levels are associated with strategic group participation (e.g. measured via market share, see Cool & Schendel, 1987; or profitability, see Lawless, Bergh & Wilsted, 1989).

Within the IMP group, networks are also researched on a macro-level. The morphology of the network is expressed in the ARA model about the actor ties, activity bonds and resource interactions that characterize the interdependent business relationships which form network structures (Håkansson & Snehota, 1995). While there exist numerous studies which apply this model and provide insights into macro-aspects of the network (Anderson, Håkansson & Johanson, 1994; Gadde, 2004), the concept of network pictures has also been used tentatively on this level to show longitudinal developments within networks, e.g. the work by Ford and Redwood (2005). Their study implies an

amalgamation of different network pictures (some of them retrospective ones) to a ‘researcher’s view’ of the network.

The Conundrum of the Meso-Level

Having introduced different concepts to understand business markets, it becomes clear that there exists a separation between understanding subjective sense-making schemata on the one hand, and market and network phenomena on the other. This is exemplified in the theoretical link between network pictures and networking (Ford *et al.*, 2003; Ford & Håkansson, 2006). There exists a significant chasm between subjectively-held network pictures and organizational activities (‘networking’), i.e. the implementation of managerial decisions to interact with customers, suppliers, and other relevant actors (Meindl *et al.*, 1994). This transition from network pictures to activities represents an epistemological chasm within the cognitive cycle of belief, action, and reaction (learning) (Neisser, 1967; 1976). In the complex world of business networks, individual managers do not ‘act’ in the sense of strategic networking activities as an ‘expression of their enacted will’. Firstly, decision-making is often *social*, in that it is group-based, as well as *formalized*, by being channeled through due diligence regulations, or rigid decision processes or systems. Secondly, the enactment of managerial decisions is frequently *delegated*. Thirdly, marketing and strategic actions in networks depend to some degree on other business actors that are part of an inter-organizational *relationship* such as collaborative NPD projects, joint ventures and strategic alliances, and therefore are often not single-entity specific. This leaves the conundrum that seemingly whole organizational entities such as companies act (they ‘network’). However, their networking activities are based on the subjective network pictures of the relevant decision-makers (typically top-management-teams) (Hambrick & Mason, 1984). *Networking* can therefore be understood as an ‘aggregated’ enactment of individual expressions of will and as such can be ‘attributed’ to an organization. This is also how it is perceived by other network actors: ‘Company X has increased the price for product A’. In fact, most management activities affecting organizational interactions are not (and mainly cannot) be attributed to individual persons and their underlying subjective way of sense-making, they are enmeshed with the structures and processes of an organizational entity within which it is enacted (Weick, 1995). However, while networking as a theoretical construct does not imply a reification of whole organizations as ‘actors’ (Meindl *et al.*, 1994), it nevertheless implies that an ‘objectification’ (in the sense of an inter-subjective alignment or organizational manifestation) of mental models or network pictures happens (Mouzas *et al.*, 2008). This results in certain activities being enacted, or realized. Therefore, the link between (individual) network pictures and (integrated) networking activities takes place on the meso-level of the company, through the (social) interactions and decisions of the relevant managers. The conceptual transformation of cognitive schemata to network-relevant business activities presupposes therefore a company-centric manifestation of the different managerial network pictures. As such, we posit that certain network pictures can be associated with ‘organizations’, in that they are structures or imprints within the organizational make-up, processes, or culture of a company that embed a specific view of how a company relates to other actors in the network (Porac *et al.*, 1989).

In the following, we will call these organizational imprints *organizational network pictures*. The resulting organizational structures are called *artifacts* or *inscriptions*, indicating that they are the tangible organizational manifestations of the manifold subjective network pictures within a company. It is these artifacts or inscriptions that the dimensional model of organizational pictures investigates.

Organizational Network Pictures and Understanding Business Markets

We have argued that organizational networking is not based solely on the network pictures of *individual actors* but on their *social amalgamation* into what we posit to be organizational network pictures. At this point it is of no importance whether such organizational network pictures are dominated by the view of one or several persons, whether they are kaleidoscopic, or whether they represent the common denominators between all relevant subjective network pictures (Ford *et al.*, 2003). For the purposes of our argument, it is only important to state that an ‘objectification’ is happening in the sense that through social interactions between managers, an inter-subjective and somewhat shared social view is formed (Weick, 1979; 1995).

It can be expected that these organizational network pictures are not explicit but they have formed, often unconsciously, as part of manifold social exchanges. However, they leave organizational traces, i.e. inscriptions. Again, these inscriptions which are the manifestations of the shared beliefs about the business network do not need to be explicit but they are, in line with our characterization of them as artifacts, impressed on many different aspects of an organization, especially on those areas that are related to interactions with the ‘outside’ (this can include classical marketing interactions with customers but also those with suppliers, strategic partners, knowledge providers, or competitors). Inscriptions can both be part of an explicit decision (e.g. the strategic statement of ‘we see ourselves in strategic competition with companies A and B’), or they can be embedded implicitly within managerial decisions that are not primarily linked to ‘networking’ activities but have an impact on them (such as the decision to cut sales force budgets by 50%, resulting in the pruning of sales visits to some customer segments). These organizational network pictures represent an objectification that can in turn start an *ossification* process, based on the reinforcing relationship between these manifestations and further decisions that impact on the organizational perspective regarding its surrounding environment (Porac *et al.*, 1989; Porac, Thomas, Wilson, Paton & Kanfer, 1995; Daft & Weick, 1984). Consequently, different perceived network elements (manifestations and inscriptions) within an overall and mostly complementary organizational network picture interlock with each other and eventually influence most managerial actions by providing a subtle but stable frame that guides and limits strategic decision-making. As such, organizational frameworks are also functioning as ‘sense-giving’ devices which encourage certain subjective ways of interpreting network phenomena.

In order to understand how companies manage within complex business networks, it is therefore important to understand the drivers of their actions as represented in the company-wide organizational network pictures. These have a certain normative power over the actions of individual managers within a company in terms of networking options

and decisions. This is not to say that organizational network pictures cannot be changed by individuals. However, such change would again imply a social activity which leaves new organizational traces. To understand the macro-level of business markets, we therefore also need to understand the meso-level of the organizational network pictures of the individual agents within these markets, i.e. the companies. The dimensional model of organizational pictures provides a tool to systematically capture such organizational inscriptions.

Empirical Case Study Design

Before the dimensional model of organizational pictures is derived from the longitudinal case study of a leading material-handling equipment manufacturer, the empirical research design is described. The case study company, BT Industries (*AB Bygg- och Transportekonomi*), was analyzed with special reference to the time period 1996 to 2004. This time period was chosen as it represents several crucial merger and acquisition activities (operationalized as four different phases), in which this company was involved, which dramatically shifted its understanding of the network in which it was doing business (Öberg, 2008).

Our main empirical sources consist of multiple interviews with twenty-two BT managers which were done in 2003 to 2005, ranging from CEO and President, Vice Presidents, CFOs, division and country managers, but also district sellers, purchasing and business planning managers. These interviews were conducted in the mother-tongue of the managers, using semi-open question frames which allowed for clarification, follow-up and additional questions to be employed. Furthermore, primary material was used, including BT press releases and internal documents.

Different textual sources were analyzed, using content analysis which was employed by overlaying our construct components and variables over the analyzed texts (Hodder, 1994; Huberman & Miles, 1994; Krippendorff, 2004; Manning & Cullum-Swan, 1994). Abductive inferences were used to link our research question and the construct operationalization with the different empirical sources (Dubois & Gadde, 2002). Using reflexive contrast and comparison techniques as well as multi-rater assessments (Altheide & Johnson, 1994; Hodder, 1994; Huberman & Miles, 1994) allowed us to reduce the data and present our findings as synthesis and juxtaposition tables (Krippendorff, 2004).

The qualitative assessment of the content analysis was done independently by the researchers. Afterwards, themes, ideas, and specific findings were compared by analyzing the overlaps as well as discussing the discrepant findings. Specifically, we tested whether our findings:

- were directly or otherwise clearly linked to the cognitive belief systems of top-managers (Thomas & McDaniel, 1990; Lyles & Schwenk, 1992)
- were presenting an expression of a manifestation of different categories of organizational network pictures (items which span several categories were analyzed and discussed further to decompose them into their specific components)

- were mentioned by more than one researcher as being present in the case study material.

Additionally, an independent academic was provided with the basic description of the network pictures concept and the different aspects of their manifestations to verify the accuracy of the findings and guard against bias by the researchers. The judge was then asked to analyze the textual data for one randomly selected time period and compare these findings with the researchers' results. Proportional reduction in loss (PRL) was used to assess inter-judge reliability which was above 0.7, i.e. satisfactory for exploratory research (Rust & Cooil, 1994).

Case Study of Traces of Organizational Network Pictures

In this case study, the different manifestations of how BT is embedded within a network of inter-organizational relationships is discussed. It needs to be mentioned that such a discussion does not relate organizational network pictures to individual cognition. Although the level of the company is the main descriptive perspective, this represents a simplification of the complex interactions between managers which lead to these manifestations (Mouzas *et al.*, 2008). Individual network pictures may actually contradict organizational ones. Thus, the presentation of our findings on the company level must not be misunderstood as a reification of the organization (Meindl *et al.*, 1994). We will use the four phases of the development of BT to illustrate our findings, each representing a shift in organizational network pictures associated with a major acquisition activity. Thus, phase 0 is used as a 'baseline'. Following on from this, differences in the aspects of organizational manifestations of network pictures are discussed in phases 1 to 3.

Phase 0: BT prior to 1997

Prior to the hectic acquisition activities beginning in 1997, BT's organizational network pictures were characterized by an understanding of itself as a rather peripheral player in the network. BT saw the competitive landscape 'shrinking' (fewer competitors but with better capabilities; integrated brands). This picture was inscribed in a (marketing) strategy which 'explained' the value-creating system according to demand differences of key downstream players: BT aligned itself with specific customers and their preferences (in the consumer goods industry and the transport sector) and in specific areas (particularly Europe) with a focus on warehouse trucks. The organizational structure of BT, as well as its distribution systems, was a clear manifestation of this position within the network. This can be juxtaposed with BT's understanding of the network competences and demands of its customers: these were perceived to want integrated solutions across sub-networks. BT understood this to mean cross-relational interactions and processes, which BT at this point did not match. In this phase, BT focused with its strategy and underlying organizational network picture on 'aspirational' competitors, such as Linde and Jungheinrich, which had in BT's opinion already achieved more integrated systems and processes compared to BT.

Based on a strategic network picture that saw BT as a services provider within the value-creating system, the importance of service interactions plus rental interactions is expressed by their contributing seventy percent of BT's turnover. This also became

inscribed in the distribution system with many fully-owned or semi-dependent distribution and after-sales service channels (contrary to some other market players). Processes of customer interaction meant that much focus was placed on service provision with the aim to create continuity in customer relationships.

Aspects of BT's ownership structure also impacted on some elements of its organizational network pictures. The fact that BT had no debts and that liquid resources existed, together with strategic profitability aims which were not achievable via organic growth, caused BT to perceive the network strategically in line with more ambitious aims. A 'wider' network picture was evident: new players became interesting (competitors or cooperation partners in counterbalanced trucks) as well as new interactions (worldwide-offering provision in an integrated, global system). Strategic merger and acquisition activities became the only option for BT to enact its 'wider' network picture, also encouraged by the organizational development of BT becoming more of a peripheral business in the portfolio of KF, the investment vehicle that was the main owner of BT in this phase. Financial resources were consequently allocated for acquiring companies, and some various options regarding geographical or product expansion were considered. This also included the process of evaluating individual companies as potential targets for acquisitions.

Phase 1: BT after Raymond acquisition (1997-1999)

BT in phase 1 shows very different manifestations of its network pictures after the acquisition of the US warehouse truck manufacturer Raymond. This take-over allowed BT to enact at least partially its network ambition: it now became a global and integrated player in the warehouse truck industry. BT now saw itself as the worldwide 'Number 1' in its sector of the truck market, having become a 'core actor' in the value-creating system. Changes linked to these new network pictures manifested themselves quickly in different aspects of BT's network pictures.

In terms of systems, the more central and global position of BT meant that they now had an expectation of being used as 'preferred suppliers' with the associated key account and key supply management processes associated. Thus, a manifestation of all things 'global' (e.g. International KAM) became visible in the systems architecture of BT as well as in the process chains of suppliers (BT and Raymond integrated their purchasing strategy and processes with special emphasis on driving costs down). However, while this network picture of integration became manifested on BT's upstream-side of the network, the same did not happen for the downstream-side, regarding customer interactions. 'Old' network picture structures (i.e. pre-Raymond acquisition) were visible: Raymond and BT divided customers by 'continental responsibilities', based on a network logic which explained customer differences (need for ergonomics and quality versus need for price) by juxtaposing Europe and the US. This meant that SBU-organization based on regions followed, with BT 'leading' the European effort, and Raymond being responsible for the US operations. Furthermore, combined NPD development between Raymond and BT did not succeed, ossifying an intra-organizational network picture of 'two cultures'. This intra-organizational perception was consequently mirrored in BT's interactions with

customers which meant that often buying companies were not made aware of the fact that BT and Raymond were now an integrated company.

Thus, while BT tried to achieve a 'preferred supplier status' as a global player in the market following from its acquisition of Raymond, the manifestations of organizational network pictures show clearly that this 'vision' did not become inscribed in BT's processes, systems, nor in its strategy or organization. Budgets also allowed the companies to work independently with regards to marketing and sales activities. However, BT still had the 'wider' strategic network pictures as guidance for further activities which was based on seeing the relevant network as the overall global truck market and not merely the warehouse truck segment of it.

Phase 2: BT after Cesab acquisition (1999-2000)

The acquisition of Cesab can be seen as another step done by BT to enact its 'wider' organizational network picture. However, the specific targeting of Cesab was a kind of afterthought after negotiations with other actors in the market had failed. BT had initially aimed to find a partner for cooperation, a result of that BT did not consider itself to have the competences to develop counterbalanced trucks itself, but also a consequence of budget constraints following the acquisition of Raymond, which had meant that BT did not have the financial resources to acquire any large company in the counterbalanced truck area. Furthermore, BT was under threat itself as it perceived that its position in the network could change dramatically as KF, its owner, was actually thinking about disinvesting non-core activities such as BT.

Nevertheless, BT's wider network pictures and its manifestation in its strategy focused still on global customers demanding a full complement of trucks from one supplier, i.e. warehouse and counterbalanced trucks together. Thus, the Cesab acquisition closed a gap in BT's network picture manifestations by providing the capabilities to fulfill these demands. This was also driven by BT's perception, as inscribed in its strategy, that they were (again) lacking behind Linde and Jungheinrich (which had become full-offering suppliers through the respective acquisitions of STILL and Steinbock).

The Cesab acquisition changed the network picture manifestations in many different ways. Firstly, it reduced the relevant direct cooperation partners for BT (Clark and Hyster as previous operational partners in the area of counterbalanced trucks had the respective relationships ended). Cesab trucks were produced under BT's brand. However, the organizational structure of diverse but dependent sales and services organizations was perpetuated by adding the Cesab sales organization as a further channel. This meant additional customer interaction systems as Cesab also relied on independent dealers. Customers were still able to buy Cesab and BT trucks in a competitive sales environment as the two brands (with their respective channels and interaction systems) were run independently, providing customers with perceived alternatives. This meant for BT that the company needed to manage network pictures of intra-company competition. Thirdly, BT 'exported' its supply-chain management best practice to Cesab, using its proven processes and systems of buying in the warehouse truck market also for its

counterbalanced trucks, with the aim to reduce costs for the counterbalanced truck manufacturing.

Phase 3: BT after take-over by Toyota (2000-2004)

With phase 2, BT had to some extent been able to fulfill its ambition to become of full-complement global truck company, operating at the core of its value-creating system, as the different aspects of the manifestation of the organizational network picture have shown. However, another actor which was previously more peripheral to BT's network picture became central in phase 3: Toyota, with its take-over of BT. Toyota was one of the companies that BT had turned to for worldwide counterbalanced truck as Toyota had the capabilities in terms of customer base, offering spread, and global reach BT needed to become a core player in the market. However, Toyota declined cooperation, while BT started to provide Toyota with warehouse trucks. The ownership situation of BT eventually meant that Toyota acquired BT. This was done with the integration of the customer networks of BT (Europe and US) and Toyota (Asia) in mind. Thus, BT now had a totally new dimension (Asia, especially Japan) added to its network picture. Furthermore, BT/Toyota had a clear top positioning in the global truck market, as well as in most niche areas, through a wide product and channel portfolio.

However, the network picture manifestations show that a wide-ranging independence of BT remained with regard to its place within the network logic of the value-creating system. Toyota continuously refused counterbalanced truck deliveries to, or product system integration with, BT. This meant that BT continued and in fact increased its use of the Cesab brand, by introducing it to the US. Again, upstream interactions were of importance, especially in terms of changes in the systems and processes: because of the dominant position of BT/Toyota, efforts were made to develop more efficient interaction modes with suppliers (such as lead buyer systems; large volume supply structures by continent). This also spilled over into an integration of production systems between Toyota and BT. However, the organizational network picture shows that downstream customer interactions were not following this integration. A 'two brands/two channels' strategy was evident, resulting from the organizational divide which existed between Toyota's middle management and BT. This was apparent, for example, with regard to the BT sales channels (made up mostly of dependent organizations) which Toyota believed would threaten its preferred sales network structure (i.e. independent dealers). While some internal system integration happened (such as cross-supplying and re-branding of offerings), this was not communicated to customers which still 'faced' two seemingly independent companies, exemplified in their different interaction channels and interaction modes, and also manifested through individual budgets of the companies.

A Dimensional Model of Organizational Network Pictures

Based on the case study of BT Industries, some (more or less) distinct themes of manifestation can be found. These themes are subsequently refined into dimensions and sub-dimensions (areas). Through using a framing and reframing technique (Chreim, 2006; Gonos, 1977; Snow *et al.*, 1986) efforts have been placed on finding ways in which network pictures are inscribed to guide actions within and between organizations. Reframing in turn focuses on how such guidance is altered (Palmer & Dunford, 1996) in

order to manifest changes during the organization's development. In our case study this is illustrated through the four phases, which each mark distinct development steps of BT Industries. The case study was addressed with questions concerning in which aspect organizational network picture traces could be found, and also what consequences this had for the company. Our approach is an initial attempt to systematize these manifestations by analyzing traces they leave according to several dimensions and areas. In the following, a descriptive research method of organizational network pictures is introduced, analogously to a dimension-based concept of individual network pictures as introduced by Henneberg, Mouzas and Naudé (2006) and Ford and Ramos (2006; 2007).

The model of organizational network pictures is based on two dimensions which are not fully independent of each other. Firstly, we investigate the *morphology of the inscriptions and manifestations* by 'locating' them within the organization. This dimension must not be understood as referring to a 'physical' location but is concerned with the aspect of the organizational entity in which the manifestation resides (e.g. this can also be a process, a textual description, a norm). Secondly, the *consequences of organizational manifestations* are delineated, i.e. what kind of priming or framing impact they have on networking activities. We use an adaptation of the activity-resource-actor model to incorporate the way inscriptions and manifestations impact on organizational networking (Håkansson & Snehota, 1995). We provide a methodological grid (the dimensional model) which captures elements of network picture inscriptions and manifestations. In the following, the manifold dimensions of the model are introduced, together with a discussion of the formative areas.

Morphology of Manifestations

Based on an analysis of our case study, we posit that inscriptions and manifestations of organizational network pictures are possible in the following areas:

Systems: Hard systems (such as ICT) or soft systems (such as incentive systems) often implicitly set limits regarding the interaction partners. In the BT Industries case, systems appear in areas such as purchasing, where a lead buyer system was introduced to guide purchasing staff about procurement decisions. Systems may, however, appear also in other areas, such as that the system configuration of a CATI system used by a call-centre may only provide certain variables to the agent. An agent with knowledge regarding the 'value of a customer' may vary interactions accordingly, while one without this knowledge will not be able to personalize the interaction.

Processes: Systems may imply certain processes. Within the process, certain interaction parameter, or decision-rules are embedded. These may only make sense for certain marketing interaction partners or certain strategic interactions and therefore delineate certain acceptable managerial responses. In the case study, this could be exemplified by processes of integrated purchasing between BT and the other companies.

Budgets: Networking focus or emphasis can be guided through budgets. While budget allocation is one of the main managerial decisions which follows strategic intent, it also contains some unexpected restrictions (e.g. with regard to the crowding out of options which were not visible at the time of the budget decision-making). Separate budgets

manifested that the various companies (BT, Raymond, Cesab and Toyota) continued as separate units also following the acquisitions. Budgets also played important roles when the companies considered different options: The acquisition of Raymond was a consequence of BT having a strong financial situation, where managers considered it important to find a way to invest the money. At the time of the acquisition of Cesab, monetary frames made it impossible for BT to acquire a strong actor in the counterbalanced truck segment, which made cooperation the main option.

Strategy: Issues around how to segment supplier or customer markets, and subsequently where to target company resources immediately and directly impact on the networking activities and interactions which are prioritized (and those which are consequently de-prioritized) (Henneberg et al., 2009). However, other strategic decision can also ‘contain’ network manifestations, e.g. decisions regarding joint ventures (Öberg et al., 2007). For instance, the acquisition of Raymond was a result of that BT had considered its position unsatisfying.

Organization: How a company organizes itself is an expression not only of how it wants to internally transform resources but also of how it wants to interact with the outside world (the ‘sorting’ decision within exchange patterns; Alderson & Martin, 1965; Hambrick & Mason, 1984). Clear organizational indicators of organizational network pictures can for example be found in Key Account Management structures. The introduction of International KAM was evidence that BT considered itself to be a global organization following the acquisition of Raymond.

Influences and Consequences of Manifestations

Along the second dimension of the research model of organizational network pictures, three distinct areas can be identified, based on an adaptation of the activity-resource-actor model used to describe and analyze dyadic and network interactions.

Inclusion/exclusion of interactions partner: this refers to whether or not certain interaction links with partners are embedded in the organization (or more precisely, its morphology) to the exclusion of other potential interaction partners. This can be inscribed in preferred interaction partner lists/preferred supplier lists; sales people route planning; contractual agreements (e.g. exclusivity rights); or market and customer segmentation/targeting models. To exemplify this in the case study, the acquisition of Cesab meant that previous cooperation partners in the counterbalanced truck area were excluded.

Impact on interaction mode: certain manifestations are prescribing an interaction mode with exchange partners, i.e. an underlying ‘rationale’ for this interaction is stipulated. This may include certain relational norms but also recommendations regarding non-interactions. Examples of organizational manifestations which are impacting on interaction modes are Key Account Management/Key Supply Centre structures; treatment strategies as part of relational interaction systems like CRM; preferred channel interaction strategies; KPI-based incentives regarding certain behavior routines for touch-point agents and sales personnel; or marketing strategies regarding differentiation from competition. The introduction of international key account managers added an

organizational level in interacting with global customers, but also meant a centralization of sales.

Allocation of resources: commitment of financial resources directly prescribes certain interactions with external exchange partners (see *budget* above). As such, budget distributions are showing commitment (or the lack of it) as well as a certain implied network structure regarding important exchange partners. However, other resource streams such as prioritized information gathering, external knowledge exchanges via joint innovation management, or employee recruitment or ‘outplacement’ (e.g. in professional services firms to generate new potential clients) give an indication of the organizational network picture. Separate marketing budget frames for the individual companies in the BT Industries case manifested the organizational structure of independent companies within the group.

Using these two dimensions of morphology and consequences, an organizational network picture can be characterized as consisting of certain company-specific elements which can hold inscriptions of the implied network environment in which the focal business is operating and which impacts on its strategic options and its networking capability. The morphology and the consequences of manifestations therefore provide a descriptive five by three grid (inclusion/exclusion of interaction partners, interaction mode, and allocation of resources on the one hand, systems, processes, budgets, strategy, and organization on the other) that can be used as the basis for a content analysis of organizations. It forms the basis of a ‘coding tree’ which provides access to a structured understanding of the organizational manifestations of network imprints and also their managerial consequences.

Synthesis of Dimensional Model and Discussion

Based on the dimensional model of organizational network pictures combining morphology, and influences and consequences of manifestations, this section returns to the case study through categorizing the descriptions of each phase according to the five by three grid.

Phase 0 (see Table 1) was marked by BT considering strategic options as the company wanted to change its present position. Organizationally, through the KF ownership and BT’s geographical presence, certain actors were excluded from BT’s network, while at the same time BT benchmarked itself towards two European full-range suppliers, Linde and Jungheinrich. Interaction modes included cooperation arrangements with counterbalanced truck suppliers on specific markets, and a focus on service towards existing customers, while the present financial situation and BT’s wish to change its position meant that new interaction modes were considered. Resources, mainly represented by financial resources, were allocated in the direction of geographical expansion.

Phase 1 (see Table 2) introduced new systems and processes with regard to suppliers. The acquisition of Raymond meant that BT clearly wanted to be seen as a global company, which was communicated in the company’s strategy and through the evaluation of suppliers on a global basis. Budget was directed towards finding common suppliers,

which in turn meant an exclusion of certain actors, while at the same time, Raymond and BT were allowed to work as independent companies towards customers. Interaction modes were not dramatically changed, but for the introduction of an international KAM organization to manifest the global presence.

In phase 2 (as described in Table 3) the acquisition of Cesab meant that previous cooperation partners in the counterbalanced truck area were excluded, while at the same time the acquisition aimed to open up for new customers. Interaction modes between Cesab and BT were marked by BT's aim to implement its purchasing process in Cesab and by the strategic combination of brands and products to manifest BT as a full-range supplier. As for allocation of resources, the acquisition meant that BT allocated financial resources to acquire Cesab.

Phase 3 (see Table 4) meant that in several areas, BT continued as previously. Systems and organization largely remained as prior to the acquisition, also meaning that interaction modes and interaction partners continued as previously. The major change appeared in the area of purchasing, where a strategy focusing on per-continent purchasing was developed.

Based on Table 1 to 4 it can be concluded that most traces of manifestations were found in the strategy area with an emphasis on inclusion/exclusion of actors and interaction mode. That the strategy dimension appears as important in all four phases may at least partly be the result of the ongoing changes of the case company including the acquisitions. Organizational aspects are mainly seen regarding how ownership affects inclusion and exclusion of actors, and how the group was organized following the acquisitions as a means to manifest common ownership or continued independence between companies. The organizational aspects would be expected to replicate the strategy dimension, but did not always do so, which is specifically evident regarding independence between companies. Systems appear in the same dimensions as organizational aspects and often were a way to manifest organizational aspects through e.g. systems of integrated activities. Processes may in turn appear as results of systems, but could also be seen as reactions to intended strategies, where processes consequently meant that strategies were not fulfilled. Traces of processes are most prevalent regarding the interaction modes with network parties, and secondly concerning inclusion/exclusion of actors. There are a limited number of examples concerning the budget dimension; when these appear they mainly concern allocation of resources and interaction mode, where financial resources are allocated for acquisitions, and where separate budgets allow for the companies to act independently. The allocation of financial resources and the separation of budgets mostly followed the organization and system aspects, while at the same time in some occasions worked against intended strategy. The reason for several aspects of organization, systems, processes, and budgets not complying with strategy was both found within the organizational set-up as well as in the interactions with business partners. This would indicate that the organizational network pictures are not merely results of top managers' views, but adjusts to external circumstances and that also other parties (apart from top managers) within the organization impact the organizational network pictures. Such a reasoning would points to certain artifacts proceeding others.

The representation of the different dimensions and areas differ somewhat between the phases. In phase 0, i.e. before the acquisitions, several system traces were found, while we only found limited examples of processes. During the scope of the acquisitions, fewer traces of systems are found, while process traces are more evident. In the last phase (see Table 4) systems are once again more frequently represented, while process traces appear less often. An explanation for this would be that during the scope of the acquisitions, emphasis is put on change processes, while systems become more apparent once more permanent situations are reached. Budget is not very well represented in the case study, but for how it affected the interaction mode with suppliers and customers, and how financial resources were allocated for acquisitions, which was most evident before the acquisition of Raymond. It was only in the transition time between the acquisitions (phase 1 to 2) that traces of budget in the inclusion/exclusion dimension could be found. This could imply that the inclusion and exclusion of actors are temporary traces that in turn direct the interaction modes. As stated previously, the strategy dimension is the most frequently represented dimension in our case study. This is the situation in all four phases, where it is also evident that few traces of strategy are found in the allocation of resource-dimension. The organization dimension is fairly well-represented in all the phases and for all influence and consequence dimensions. As with strategy, few traces were found regarding allocation of resources, and the inclusion/exclusion of actors following the acquisitions merely mirror possible integration plans or objections thereto.

In summary, certain dimensions are more connected to changes resulting in/from mergers and acquisitions, while others become evident during more stable conditions. As the BT case deals with a company in transition, strategy and processes aim primarily at changing the organizational network pictures, and thus are more prevalent in the particular case setting.

Conclusion and Implications

The concept of organizational network pictures was used in the case analysis by analyzing different facets of their manifestations by phases. Organizational network pictures represent the traces of managerial sense-making regarding the embedding business environment as an outcome of social interactions within the company. As such, organizational network pictures are an objectified meso-level construct of managerial activities. An initial dimensional model of organizational network pictures was developed to capture difference aspects of these traces. Some conclusions regarding the acquisition activities of BT in the period 1997-2004 can be drawn from the analysis using this dimensional model, as well as some comments on the concept itself and its operationalization can be made.

Main Findings

Starting with the analysis of the hectic acquisition activities at BT, it can be shown that from an early point onwards, the strategic orientation of BT as exemplified in the strategic manifestations was already fixated with a 'wider' network picture, while processes, systems, budgets, or organizational issues remained bound to 'narrower' network picture logic. BT saw itself on the periphery of a global market of trucks, based on full-offering customer demands, channel and supply-chain integration, and a shrinking

competitive landscape. Its specific starting point in terms of deep after-sales interactions based on dependent sales and service channels, with a focus on Europe and a niche positioning in warehouse trucks comprised of a much smaller number of actors, more limited interaction modes and resource ties than its 'wider' organizational network picture as envisaged in its strategic manifestations. Over the course of the different acquisitions, new players, interactions, systems, processes, and organizational aspects were one-by-one added and aligned with this wider network picture, in order to achieve finally a core positioning in the global truck network where the strategic network picture overlapped with the other aspects of network picture manifestations. This was achieved by including more customers (in the US via Raymond), more offering variety and supply-chain system efficiency (via Cesab), and finally a truly global reach (multiple brands, channels, and the inclusion of Asia via Toyota).

However, the different facets of network picture manifestations also clearly show that there are still frictions in existence, as well as contradictions within BT. The hope to become a 'preferred supplier' is an example of this: while on strategic level a consistent and integrated full-offering interaction with global key customers across continents is envisaged, this is contradicted by organizational manifestations (e.g. SBU organization by continent; different channel systems for BT and Toyota), by process manifestations (international KAM but brand-based interaction processes), and by system manifestations (no brand-crossing NPD). While these alignments along all dimensions of network picture manifestations exist to a somewhat larger degree in the area of supply-chain-management (by global purchasing integration; best-practice roll-out across different SBUs; supplier consolidation and bundling efforts), they have not been achieved in downstream interactions.

Analyzing the usefulness of the concept of organizational network pictures, the acquisition activities of BT show that certain aspects of the strategic intent inscribe themselves before the action itself has been enacted. This is especially true in terms of the strategic aspects of network picture manifestation: the 'network definition', the actor focus (e.g. in terms of important competitors), and the availability of options (the pressure to use funds). Thus, one can trace the success of the intended strategy in terms of its enactment by juxtaposing the different aspects of the organizational network picture construct. Internal contradictions and a lag of manifestations, e.g. in terms of processes or organizational structure, are indicators of potential shortfalls. Frictions and time lags between alignments of different aspects of organizational network pictures indicate that these are complex and multi-faceted. Difficulties as well as inconsistencies in managing and steering organizations surface when analyzing the network picture dimensions described.

Applying the construct of organizational network pictures to our case study shows that while the concept and its facets can be clearly overlaid over the data, this works best for 'strategic' manifestations and to some extent also for process and systems issues, as well as for the inclusion/exclusion of actors, and the interaction mode. Aspects of budget, as well as resource tie-related issues were more difficult to extract. This hints at the fact that these need more specific data sources, i.e. beyond a general case study description and

analysis of acquisition processes. Thus, case study information which covers these aspects may need to be collected specifically to ensure a rich data source, covering all aspect of network picture manifestations. Furthermore, as BT underwent a period of dramatic changes due to acquisition and merger activities in the case study period, the findings may not be typical in a wider context. Specifically changes instigated as a result will emphasize strategic aspects, while inscriptions related to day-to-day activities would not be as easily be traceable or crowded out.

Theoretical Implications

Literature on business networks has focused foremost on the macro-level of interacting companies in business networks. More recently, network pictures as manager's sense-making devices have attracted several researchers' attention. The dimensional model of organizational network pictures outlined in this paper is a means to address the chasm between individually held network pictures and network interaction (Henneberg *et al.*, 2010). This means that we create a link between the micro- and the macro-level of business market analyses, in that we connect individuals' sense-making with activities on a network level. We introduce the meso-level as level of analysis, where focus is on the individual company and processes therein that manifest and direct activities. The dimensional model introduced in this paper becomes a means to capture tangible traces of organizational network pictures. It also provides evidence of how sense-making of individuals are inscribed in organizational artifacts. These in turn aim to guide the company's networking activities.

While the paper focuses on such inscriptions, it does not provide insights into how subjective sense-making is transformed into such artifacts and further to networking activities (Henneberg *et al.*, 2010). The testing of the model indicates that there may be discrepancies between strategic intentions and inscriptions in organizational structures, processes, and the like. This suggests that organizational inscriptions do not just simply connect individual network pictures and companies' networking activities. Instead, the transition of individual network pictures into organizational inscriptions and further to networking activities of the company is a process of social interaction involving critical interpretations, adaptations, and changes. These social interactions in turn are indirectly framed or are directly the result of such inscriptions. Issues around control and power, but also sensitivity to other parties' networking activities and perception, are factors to consider when studying how organizational artifacts transfer from individual and subjective network pictures to networking activities.

Inscriptions are expected to differ between various types of firms (independently of differences of the underlying subjective network pictures). The more centralized the organization, the more rigid are the organizational network pictures with the aim to steer networking activities, while decentralized organizations (such as BT) are hypothesized to show larger discrepancies with regard to artifacts, due to the fact that network pictures are created through manifold interactions with more actors on various organizational levels and these network pictures need in turn to be amalgamated into organizational network pictures (Mouzas *et al.*, 2008).

For further research it would be important to understand how subjective network pictures build up to organizational manifestations, and further how organizational manifestations are interpreted into networking activities. We further suggest a dimensional model as a device for investigating the way companies are embedded in a network of interacting organizations, resulting in strategic decisions about complex strategic marketing activities. Furthermore, future research needs to focus on the tensions and time lags in organizational network pictures. Such studies could include linking these organizational artifacts to individual network pictures to analyze why discrepancies appear, but linking them to networking activities to explore what consequences organizational network pictures have for the company's networking.

Managerial Implications

The paper demonstrated that manifestations of managerial cognition function as guidelines for a company's networking activities. This implies that they create a link between managers' interactive sense-making and activities of the company. In doing so, it is imperative that manifestations actually reflect managers' cognition and guide network activities. For managers it is, hence, of key importance to ascertain that such manifestations actually inscribe the organization's network picture. The introduced dimensional model may provide useful help to identify areas of inscriptions, and, thereby, the model functions as a planning and follow-up tool.

The analysis of our case study revealed that there were discrepancies between inscriptions in the various dimensions. For managers, it would be important to ensure that various manifestations within the organization converge rather than diverge. Reasons for discrepancies, including time lags, would need to be analyzed by managers in order to improve processes within organizations, but also to understand that is not merely the top managers' view on the company's network that drives company activities.

For managers, sophisticated artifacts may be a means to steer an organization, without individuals in the organization feeling directly controlled or steered. This could include implementations of specific organizational structures to promote a certain way to interact with external parties. While inscriptions aim to guide networking activities, there is thus a freedom in management style regarding appropriate ways to use such devices and make the organization act in a certain manner.

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Table 1: Organizational Manifestations of Network Pictures, BT Phase 0

Phase 0 (BT prior to 1997)					
	System	Process	Budget	Strategy	Organization
Inclusion/ exclusion	Limited presence on the US market and difficulty grow there via present representation (subsidiary Prime Mover)	Perception of customers having global purchasing processes which are not matched by BT		Targeting strategy focused on consumer goods customers (in comparison to some main competitors such as Kalmar which target process industry customers) BT views itself as a 'service company' with attached production division in the network	Minor player in the US via Prime Mover Organizational cooperation with other KF-owned customers; exclusion of interactions with KF competitors
	Distribution systems to provide counter-balanced trucks only available to BT in a small number of countries (Sweden and UK via Clark cooperation) Industry logic of systems as based on warehouse trucks for consumer goods companies; and counterbalanced trucks for process industry			Strategic focus on two main competitors in Europe: Jungheinrich and Linde (both seen by BT as full-range suppliers of counterbalance and warehouse truck, thus targeting process and consumer goods industry) Competitor landscape is shrinking due to acquisitions by main players; brand landscape also shrinking due to brand culls Strategic intent: either becoming a European full-range supplier, or a global warehouse truck nicher	Emphasis on after-sales service organization
Interaction mode	Closer interactions with US customers via proprietary system perceived to be necessary	Aggressive market behavior ('corporate raids') towards Raymond places it in the perception of the network as an acquisition target	After sales interactions contribute 50% of turnover; rental interactions contribute another 20%	Operations in the US would mean for BT that they are now perceived as a 'national' interaction partner	Large number of wholly or partly owned service and sales organizations as semi-independent service organizations
			Cash reserves at BT made aggressive acquisition search possible	Tackling Raymond and Crown as the main US competitors head-on as a means of expanding business Competition and cooperation as two-pronged interaction approach, e.g. combi-truck collaboration with Raymond Long-term sales interaction with customers via after-sales as favorite strategic interaction model	Cooperation with counterbalanced truck providers on certain markets (Clark)
Allocation of resource			BT had no debts since end of 1997. Therefore, investment was 'needed' and resources were earmarked for this purpose	Strategic profitability aim was not achievable via organic growth and therefore focused on acquire resource availability	Physical production investment focus in Sweden, US, and Canada
					BT becoming a peripheral business within the ownership organization of KF

Table 2: Organizational Manifestations of Network Pictures, BT Phase 1

Phase 1 (BT after acquisition of Raymond: 1997-1999)

	System	Process	Budget	Strategy	Organization
Inclusion/exclusion	<p>New increased size and position of BT leads to expectation of becoming 'preferred supplier' to key customers</p> <p>PrimeMover systems (proprietary to BT) sidelined by Raymond</p>	<p>Inclusion of Raymond suppliers into supply chain</p>	<p>Inclusion of Raymond supplier with renegotiations to obtain better prices</p>	<p>Geographical expansion into dominant niche through warehouse trucks via Raymond acquisition</p> <p>BT's self-perspective as No. 1 in world market of warehouse trucks (previously saw itself as No. 3 in Europe)</p> <p>Strategic decision not to make Raymond customers aware of the new link with BT; the same happened in some European countries where BT customers were not informed about Raymond's integration</p> <p>Strategic focus after acquisition on expanding BT customer base (and not creating globally integrated customer base)</p> <p>Perceived next challenge in network was linked to becoming a truly global player by satisfying all customer demands, i.e. by having counterbalance and warehouse trucks all over the world. First priority: to become full range supplier in Europe</p>	
Interaction mode	<p>Expectation that 'global interaction systems' are now necessary for BT</p> <p>Otherwise, interaction systems did not dramatically change</p>	<p>Initial attempt (later abandoned) to provide product and component coordination with Raymond (later, BT and Raymond became again independent offerings)</p> <p>No 'cross-marketing' of SBU offerings allowed (especially not between US and Europe)</p> <p>Expectation that new 'key supplier' relationships will develop</p> <p>Emphasis on ergonomics and quality issues in Europe, and on price in the US</p> <p>Integration attempts seen to have failed due to Raymond's resistance to process alignment</p>	<p>Price renegotiations with Raymond suppliers; general supply-chain renegotiations of framework agreements</p> <p>General purchasing interactions with supply-chain became more price focused</p> <p>Raymond as a new part of BT was the more profitable and faster growing company</p>	<p>Strategic aim to become a 'preferred supplier' with key customers</p> <p>Perceived interaction demand of customers as 'global'</p> <p>Initial attempt to provide integrated interaction by product/component coordination (later abandoned and BT and Raymond SBU strategy became reinstated)</p> <p>Customer interactions did not change due to the fact that no customer handling integration between Raymond and BT was envisaged</p> <p>Customer interactions were expected to change due to size/position of BT, providing them with 'preferred supplier' status</p> <p>Purchasing interactions and relationships were redefined as part of strategic focus of BT after acquisition</p> <p>Main logic of network associated with ergonomics and quality of offering considerations in Europe, and with price in the US</p> <p>Based on continent-based understanding of network logic, marketing and R&D networking activities different</p>	<p>Organizational material flow not the main consideration for Raymond acquisition, but customer locations with the necessary global organizational reach for suppliers</p> <p>No organizational integration of Raymond due to its 'independent' success</p> <p>BT was meant to be the integrating link between organizational regions</p> <p>International KAMs introduced as new layer in BTs organization</p> <p>Generally perceived different 'cultures' between Raymond and BT organizations</p>
Allocation of resource	<p>Marketing/product systems for BT and Raymond had separate resource funds</p>	<p>Raymond becomes dominant brand and sales channel for US SBU (Prime Mover was integrated into Raymond)</p>	<p>Raymond provide very positive resource flow but is seen by BT more as a strategic investment</p>	<p>Resource allocation based on quality considerations in Europe, and on price in the US</p> <p>Separate strategic NPD budgets</p>	<p>Resource re-allocation in the US from old BT business to Raymond SBU in the US</p>

Table 3: Organizational Manifestations of Network Pictures, BT Phase 2

Phase 2 (BT after acquisition of Cesab: 1999-2000)

	System	Process	Budget	Strategy	Organization
Inclusion/ exclusion	System development to deal with counterbalanced and warehouse trucks	Toyota refused to provide counterbalanced trucks to BT; BT decided to provide Toyota with warehouse trucks anyway	KF was not profitable and therefore wanted to exclude non-core activities from its portfolio, including BT	Perception by BT that the customer network of the material-handling industry demand a full complement of trucks from one supplier	Decision to acquire organizational supplement in the form of Cesab to become a full offering provider was preferred to other organizational networking alternative (e.g. cooperation approaches by Toyota and by Clark had been made)
		Fear by BT that Cesab could cease its previous cooperation and process integration with BT via being acquired by competitor Via acquisition of Cesab cooperation with Clark and Hyster is ended	KF divested BT shares, thus BT was seen to be for sale	Previously, BT SBU Europe worked in this area via own production capabilities and as distributor of counterbalanced trucks for other companies (Hyster, Clark, Dockstocker) Strategic intent of Cesab acquisition based on complementing offering portfolio by bringing counterbalanced truck production in house (and therefore open the BT network to new customers and segments) Perception by BT that Linde and Jungheinrich have already made that step to a full-offering provider (through Steinbock and STILL acquisitions)	
Interaction mode		BT tried to 'educate' Cesab about purchasing process to align efforts		Integration of branding, e.g. BT brand/logo was used on Cesab counterbalanced truck (except for Italy and other countries where Cesab survived as a brand) Further brand reduction by BT trucks partially replacing Clark and Hyster trucks which were previously distributed via BT Some countries experience customers having to choose between BT and Cesab trucks competitively as both are available through different selling channels Purchasing relationships with Cesab suppliers were redefined through dissemination of 'best-practice' BT approach to supplier interactions	Cooperation main option but failed to find cooperation partner for counterbalanced trucks. Organizational acquisition became preferred to other organizational interaction modes/networking solutions Independent sales organization of Cesab (dealers) are kept
Allocation of resource	Cesab with own budgets for sales systems and sales management through independent dealers	Two-step process of acquiring Cesab			Board of Cesab replaced with primarily BT people

Table 4: Organizational Manifestations of Network Pictures, BT Phase 3

Phase 3 (BT after take-over by Toyota: 2000-2004)					
	System	Process	Budget	Strategy	Organization
Inclusion/exclusion	<p>Due to Toyota continuously refusing to provide BT with counterbalanced trucks, BT continues with Cesab in Europe on systems level; Cesab trucks are also introduced in the US</p>			<p>Toyota acquisition of BT focused on incorporating existing BT customer networks in warehouse trucks, especially those in the US and Europe</p> <p>Toyota focused on strategic market share target in a global market for trucks</p> <p>BT clearly preferred Toyota as a buyer due to market synergies and perceived continuous independence, compared to alternative take-over attempts/bidders which were in the market</p>	<p>Toyota middle management opposed integration of BT by, for example, shared product sales channels, due to a perceived negative impact on the existing Toyota distribution network. Therefore, no organizational integration happened</p>
Interaction mode	<p>Lead buyer' system to disseminate best-practice purchasing between SBUs and sub-brands</p> <p>Integration of systems between BT and Toyota only by continents</p> <p>Toyota production system used at BT's production plants</p>	<p>Introduction of best-practice processes for purchasing</p> <p>Two independent customer interaction processes and channels by brand</p>		<p>Purchasing modes are redefined by SBU (i.e. continents) by identifying mutual suppliers of BT and Toyota and consolidation into large volume supply interactions</p> <p>Introduction of a 'lead buyer' concept, based on the combined experiences of BT, Toyota, and Cesab</p> <p>Customer interactions based on a two brand strategy: Toyota and BT (internal slogan: Two brands, two channels), implying a desired intra-group competition</p> <p>Toyota aims at implementing (learning) BTs after-sales</p>	<p>BT and Toyota sales channels remained organizationally separate, especially in Europe</p> <p>BT continues with owned sales organizations, while Toyota uses independent dealerships</p> <p>However, cross-supplying was made without allowing the customers to realize this</p> <p>Second integration wave meant centralized management for Europe in Brussels</p>
Allocation of resource	<p>BT and Toyota brands and channels with quasi-independent systems and system budgets</p>			<p>BT delivering trucks to Toyota but not the other way around with budget imbalance and transfer costing implications</p>	