Amalgamating Strategic Possibilities

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AMALGAMATING STRATEGIC POSSIBILITIES

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ABSTRACT

A challenge facing organizations is that of amalgamating possibilities which do not exist in a transparent and concentrated form, but rather as dispersed individual cognitive ‘pictures’ or ‘maps’ held by managers embedded in business networks. Based on our research of business networks involving manufacturers of consumer goods, pharmaceutical companies, producers of semiconductors and telecommunication and utility service providers, we propose the concept of network insight, which does not consist of the subjective views of individual managers but is grounded in the practice of inter-firm exchange. We argue that developing network insight is a managerial challenge of amalgamating dispersed pieces of atomized network pictures through heedful multilateral interactions. Such a managerial activity is intersubjective and transcends the task-specific knowledge base of managerial cognition that leads to organizational learning for strategic positioning and acting within a business network. Managers that develop network insight are able to mobilize other actors and create a competitive advantage for their organization that is crucial for innovation and growth.
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It is commonly argued that business networks which include organizations of different types provide the relevant context for organizational practice (Andersen et al., 1994; Uzzi, 1997; Uzzi and Lancaster, 2003). The challenge of strategizing that companies face within these ‘communities of practice’ (Gadde et al., 2003) consists of amalgamating possibilities and strategic options, which do not exist in a transparent and concentrated form but solely as dispersed individual cognitive ‘pictures’ or ‘maps’ held by managers in a network. These atomized and often contradictory ‘network pictures’ (Ford et al., 2003) refer to the idiosyncratic understanding that different managers have of their surrounding network in terms of actors, interactions, and means-end relationships (Smircich and Stubbart, 1985; Hodgkinson and Johnson, 1994; Johnson et al., 1998). One would be tempted to rush into a straightforward response to this challenge of integrating these individually held network pictures, by claiming that managers need to research several individual network pictures and compare them by using complementary elements in order to form an integrated perspective. This, however, is not sufficient. Consider a business manager who investigates entry into a new business network. The network pictures that he may obtain regarding customers’ issues and competitive dynamics are useful first impressions. However, can he be sure about the underlying logic and interests of his customers? Can he rely on the views that he obtained without any prior exchanges in the network that he intends to enter? Networking (Ford et al., 2003) within communities of practice by itself, does not flow directly out of a multitude of network pictures but requires further managerial activities and cognition before insights are gained (Tsoukas, 2000).

There are two reasons why the mere addition and overlaying of network pictures will not address the challenge of amalgamating atomized network pictures. Firstly, managers’
cognitive maps are continually re-configured through activities and negotiations undertaken by the organizations in their intermediate network to resolve inherent conflicts and exploit opportunities. Moreover, cognitive maps impact on each other at different levels: the one of the individual ‘carrier’, usually an individual manager in a management team, the intra-company relationships between individuals in management teams, and the inter-company network (Lyles and Schwenk, 1992). Thus, organizations cannot fully construct and spell out in advance all individual views held by other actors, nor can these views be anticipated to be stable. Secondly, differential knowledge for positioning and acting within a network which is the basis for organizations’ innovative action is not self-contained in network pictures but emerges as a set of possibilities through enacted tensions and the formation of discrepancies. Strategic options ‘develop’ (Luehmann, 1998; Williamson, 1999; Beinhocker, 1999; McGrath et al., 2004), they are not engrained in cognitive representations but need to be worked for through specific managerial activities.

Therefore, we propose in this article the conceptual construct of *network insight*, which does not consist merely of the subjective views of atomistic players but comprises the unique, inter-subjective and task-neutral knowledge for positioning and acting within a network. We have chosen call this *developing network insight* deliberately to emphasize the inherently developmental and indeterminate nature of the network insight. Each inter-organizational network consists of pre-existing business relationships and dynamics that continually reshape what is feasible and what is successful. Through the construct of network insight we describe the emergence of a set of possibilities open to each organization within that network and argue that *network insight* can lead to a competitive advantage within a network as well as for the network itself. This paper presents a procedural fundament for developing network insight, drawing on three management perspectives: *networks, knowledge* and *collective mind*. We describe the amalgamation process and analyze important barriers to developing
network insight. We then illustrate in an exemplified case the inherent difficulties of companies developing network insight. We finally present conclusions and guiding principles for business managers and management teams.

Network Perspective

The network perspective is ingrained in the recognition of markets as networks of exchange relationships (Axelsson, 1992; Dyer and Singh, 1998; Halinen et al., 1999; Stevenson and Greenberg, 2000; Gnyawali and Madhavan, 2001; Kranton and Minehart, 2001). The view of markets as interconnected networks of exchange relationships prompted a whole generation of researchers to analyze and describe the characteristics of these networks Ford, 1988; Easton, 1992; Andersen et al., 1994; Håkansson and Snehota; 1994; Easton and Håkansson, 1996; Turnbull et al., 1996; Ritter, 1999; Håkansson and Ford, 2002; Wilkinson and Young 2002; Ford et al., 2003). Network pictures are a central concept to the network perspective. They describe the mental representations, or cognitive maps, of relevant network characteristics as seen through the eyes of involved actors (Bougon et al., 1977; Huff, 1990; Ford et al., 2003). The attempt to portray network characteristics and provide a plausible, subjective narrative for past events, current positions and future developments, can be traced back to Johanson and Mattsson’s (1992) ‘network theory’. Network pictures are the actor’s ‘network theory’ (Mattsson, 2002b). Like Weick’s (1995) notion of sense-making, network pictures are vigorously contributing to the process of organizations’ and network’s identity construction through individual sense-making and representational processes (Holmen and Pedersen, 2003). Network pictures are retrospective in the sense that they provide a plausible representation of past events and current positions but also prospective in that they shape organizations’ future options (Weick, 1979; 1988).
Notwithstanding the intellectual debate about network pictures (as well as related discussions about competitive groups in the strategy literature and also cognitive maps in the organizational behavior literature) (Bougon et al., 1977; Daft and Weick, 1984; Porac et al., 1989; Stubbart, 1989; Huff, 1990; Bougon, 1992; Eden et al., 1992; Fiol and Huff, 1992; Bogner and Thomas, 1993; de Chernatony et al., 1993; Hodgkinson and Johnson, 1994; Hodgkinson, 1997; Huff, 1997; Spender, 1998; Osborne et al., 2001; Daniels et al., 2002),

there have been few serious attempts to rigorously conceptualize the underlying dimensions of such network representations and to test their applicability in the real life of organizations (Cova, et al., 1998) or to link their characteristics to performance outcomes (McNamara et al., 2002; McNamara et al., 2003). Henneberg et al. (2006 forthcoming) provide an extensive review of previous work on network pictures in the business-to-business marketing literature and propose a parsimonious set of eight interrelated dimensions. Their study demonstrates that the utilization of the different dimensions is primarily determined by what it is that managers wish to represent, within a specific task-oriented environment. As there is no such thing as one abstract or ‘correct’ network picture, Ford et al. (2003) argue that the different managers involved will naturally have their own subjective interpretations. These individual network pictures matter as they provide the foundation for organizational activity without reifying the organization as an ‘actor’ (Meindl et al., 1994). Managers need to integrate their diverse cognitive maps for organizational purposes because organizations act as a single entity; an objective that can be achieved via amalgamation and reduction of diversity between individuals (Weick, 2004). Furthermore, Ring and van de Ven (1994) argue that business-to-business relationships can only prosper once congruent ‘network identities’ have been accomplished. One way to overcome the problem of congruence and integration is to follow Anderson et al.’s (1994) suggestion that multiple network pictures need to be collected in a more systematic and possibly longitudinal fashion. Their suggestion is to use case studies that
capture longer time periods and gather material from different functions both within an organization and from different organizations. However, they do not indicate a process or theoretical mechanism of how this multiplicity is useful and how it could be used for strategizing (Ford et al, 1988). Organizational theory recommends ‘merging’, ‘overlaying’ or ‘congregating’ multiple cognitive maps (Eden, 1989; Eden et al., 1983; Bougon, 1992), again, without procedural indication about what this means.

We posit that the problem with the active use of network pictures is not simply a matter of numerical sufficiency. Network pictures are atomized constructions that are inferred and interpreted from a variety of cues rather than objectively given. All elements of network pictures, as well as their interpretations are subjective (Anderson et al., 1994; Möller and Halinen, 1999) and linked to the tasks at hand that shape individual managers’ perceptions (Daniels et al., 2002). They can be interpreted as a sign of what individual managers sense is important for them and their organization, but not as a sign germane to the development of ‘network competences’ or an abstract grasp of network properties or more abstract strategic network options (Ritter, 1999; 2000). Due to their subjective character, network pictures are a personal interpretation of the network context (Gadde et al., 2003; Mattsson, 2002b). Moreover, network pictures are enacted in the sense that existing business networks are interpreted and constructed by the organizations’ own initiatives. Their properties are actor-centered as they comprise elements such as the network horizon (Holmen and Pedersen, 2003) or boundary, centrality, distance, actor, relevance information flow and exchange relationships (McLoughlin and Horan, 2000).

At the same time, the theoretical preoccupation with network pictures obscures one important point. There is a great difference between what is factually possible in a network and what is
conceivable by an organization or individual using their specific network pictures. Concepts such as those of network pictures, which ignore this distinction, are unsuitable for drawing a framework that explains and improves practice beyond a mere subjective relativism. To be useful to managers, a theoretical construction needs to be grounded in a deep understanding of the practice of inter-organizational exchange (Biggart and Delbridge, 2004). Network pictures alone are not useful for organizational practice in the sense of providing differential advantages. Managers who rely on their individual network pictures might be blinkered. As atomized constructs, managers’ network pictures have not been tested within inter-organizational exchange processes, nor have they been linked to cognitive processes (Meindl et al., 1994). They constitute an ad-hoc theorizing on cognitive structure divorced from reality. While network pictures are undeniably valuable as aspects of organizations’ identity construction, their appropriateness for a thorough understanding of networks and strategic networking remains limited. As subjective representations, network pictures need proper ‘translation’ through several stages of inter-organizational exchanges before they become ‘inter-subjectively’ amalgamated and as such ‘objectified’ (Mattsson, 2002a; Mattsson, 2003).

Knowledge Perspective

While the network perspective qualifies our understanding of subjective representational constructs like network pictures, we need to look at the knowledge perspective to understand the necessary components of network insight. Developing a knowledge approach to economic problems, Hayek (1945) articulated in a forceful and clear way the idea that the economic problem in a society is in fact a problem of the utilization of knowledge not given to anyone in its totality. Hayek formulated this problem in the following way:

“The peculiar character of the problem of rational economic order is determined precisely by the fact that knowledge of circumstances of which we must make use never exists in
concentrated or integrated form, but solely as dispersed bits of incomplete and frequently contradictory knowledge which all separate individuals possess. The economic problem of society is thus not merely a problem of how to allocate given resources. It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know” (1945, p. 519).

Moving on from the macro-realities of a whole society to the realities of individual firms, Tsoukas (1996) paraphrased Hayek’s problem by stating that “the organizational problem firms face is the utilization of knowledge which is not, and cannot be, known by a single agent” (p. 11). This agent might be within the borders of the company or outside. In an attempt to refine our view of what organizations are about, Tsoukas (1996) considers organizations as being in constant flux and argues that at any point of time, a firm’s knowledge is the indeterminate outcome of actors attempting to manage the inevitable tensions between a) normative expectations, b) dispositions from the past and c) local contexts. The consequence of these tensions is that the potential for the emergence of novel practices is never exhausted. Normative expectations, for example, could take the form of roles but also the form of internal or external pressures to act in a certain way, or of task-related contingencies. Dispositions include sedimented experience but also the various forms, such as plans, reviews, statistics and maps/matrices in which information appears. Finally, local context comprises all specific space-temporal conditions such as the maturity of industry, existing organizational and inter-organizational structures as well as the access to the right people at the right time. Building on Giddens’ (1984) duality between structure and action, Hargadon and Fanelli (2002) suggest that organizational knowledge is the product of an ongoing and recursive interaction between knowledge as empirical action and knowledge as possibility. In their view, knowledge as action encompasses the factual physical and social artifacts that surround actors in organizations, while the knowledge as possibility comprises
the schemata constructed and shaped from actors’ past experiences. The duality implies that actors’ knowledge of action is experienced through the lenses of existing cognitive schemata. Hargadon and Fanelli (2002) conclude that the generation of new knowledge or successful replication of old knowledge depends on the cyclic interaction between the ‘matter’ of the knowledge as action and the ‘energy’ that resides in knowledge as possibility. Their position is compatible with contemporary critical realist approaches. While the naïve realism of the past articulates the belief that that knowledge can be obtained with certainty directly from the real world, critical realism argues that "all knowledge claims must be critically evaluated and tested to determine the extent to which they do, or do not, truly represent or correspond to the world" (Hunt, 1990, p. 11). In Sayer’s realist view of knowledge, objects may be simple or complex, social or material, abstract or concrete, and are characterized by their relations. However "neither objects nor their relations are given to us transparently: their identification is an achievement and must be worked for" (Sayer, 1984, p.88).

While the knowledge perspective emphasizes the inherently imprecise and indeterminate nature of knowledge, the current management literature is rich with examples of how business opportunities emerged as a by-product of actions with a different purpose rather than as intended outcomes of deliberate views and choices (Mintzberg, 1979; Mintzberg and Waters, 1985). One explanation for these empirical findings is that business opportunities, which organizations exploit, can only be identified if organizations are specifically prepared for them (Denrell et al., 2003). It appears, however, that the above line of thought misses a crucial attribute of this ‘achievement’ or ‘preparation’ process. The challenge of embracing the new opportunities, which are dispersed in an organization’s surrounding network, requires a deep insight into what is feasible. This insight is grounded in the inherent network negotiations and interactions which are managerial activities embedded in exchanges (Spender, 1998).
Collective Mind Perspective

In order to get to grips with the notion of network insight and the process of achieving it, a deeper understanding of its characteristics needs to be provided. This is mainly based on research into managerial cognition in the organizational behavior literature. We posit that network insight is congruent with a concept called ‘collective mind’. Collective mind is taken as a construct of integration of feeling, thinking, and willing. It is not fully represented in one person but ‘collective’ and, therefore, inter-subjective in the sense that it is partially overlapping between individuals while only partially developed in each individual (Wiley, 1988; Weick and Roberts, 1993). Thus, in terms of network pictures, these are amalgamated through (inter-)actions within and between organizations into an inter-subjective, collective understanding of the network: the ‘insight’. Mutually shared fields of representation exist (Asch, 1952). This notion of network insight, understood as collective mind, introduces the possibility that simple actors can comprehend very complex environments and the embedded strategic options. Interrelations are crucial for this purpose because the ‘mind’ or ‘insight’ is located in the connections between actors. Consequently, individual actors can only build collective mind via the interrelation with other actors. Network insight can therefore be termed to be ‘social’, it is not stable but changes incrementally with further interrelations; it is collective but not reified (Weick and Roberts, 1993). The characteristics of high-performing network insights are therefore similar to a network capability (Eisenhardt and Martin, 2000; Ritter et al., 2002) which allows groups (companies or networks) to comprehend complex situational demands regarding sensemaking, e.g. unexpected events that evolve rapidly.

While describing network insight as a sense-making capacity within an ongoing system of interactions and negotiations, this does not clarify how it is procedurally achieved. What kind of interactions foster network insight? How are network pictures transformed into network
insights? Taking our cues again from the notion of a ‘collective mind’, the transformation process as an amalgamation of network pictures is linked to the ‘heed’, expressed in the interrelation activities, e.g. negotiations (Ryle, 1949). Heed is defined as a “disposition to act with attentiveness, alertness, and care” (Weick and Roberts, 1993, p. 374). Heedful interactions cause the network to be tightly coupled. Heedful interactions are characterized by rich and manifold connections between actors of all levels within the network system. Stress is put on the coordination of actions (not necessarily on cognitive alignment); respect and trust is more important than agreement itself. Heedful interactions acknowledge diversity as a positive element in creating collective mind situations (Weick and Roberts, 1993).

The following table (Table 1) summarizes the relevant theoretical input from the three perspectives which are used as conceptual tools in our attempt to describe the process of developing network insight and analyze our empirical data.

[Please insert table 1 here]

**NETWORK INSIGHT: MANAGING THE AMALGAMATION PROCESS**

Having reviewed the theoretical foundation of this study, we now define the principles of network insight and describe managerial activities for developing network insight. Network insight is understood as a network property, a structure as well as a process (Weick, 1988; Weick and Roberts, 1993). The proposed frame is informed by the conceptual perspectives of network, knowledge, and collective mind. It is depicted as a funnel (see Figure 1), and illustrates a process of integrating dispersed and subjective views in a business network.

[Please insert figure 1 here]
Managers’ subjective views or network pictures can be described analytically as a) impressions, b) images and c) identities. Impressions include managerial expectations, such as the expected return on assets, expected performance or certain roles within a business network. They also include hopes or fears with regard to activities, i.e. programs of action. Images are framed by the sense-making of the business network and the inherent logic of the competitive game. They are the managers’ mental maps that reduce important network properties, logical links and rules into simple and manageable representations. Furthermore, identities refer to managers’ self-perceptions and their sedimented experience from the past. However, network pictures of individual members of a management-team are usually not enacted unilaterally and immediately but trigger an exchange process within and between companies. These network exchanges involve an on-going negotiation among actors. Normative expectations might clash, past dispositions might shape the interactions, and contextual variables will mediate the process. Often external data is used to ‘validate’ or ‘falsify’ certain aspects of shared elements of network pictures. Any synthesis reached in the end can still consist of many controversial elements within a shared understanding, e.g. based on misunderstandings, hidden agendas or perceptual opaqueness (Weick, 1990). Through this amalgamation process and the corresponding gain in clarity of sense-making, network insight is potentially created, embedding some new options and possibilities for managing in networks. Possibilities are open to each organization through the comprehension of non-task related network properties. Network insight, therefore, is not a subjective interpretation that is inferred from a variety of cues; it is rather inter-subjective and collective.

Our analysis of all these characteristics reveals three important barriers to the success of integrating dispersed pieces of incomplete impressions, images and identities: Firstly, the amalgamation process requires multilateral exchange; secondly, the amalgamation process is
a managerial activity that is embedded in manifold rationalities and thirdly any amalgamation effort is time-consuming and simply not feasible without the efficacy of recursive time. Multilateral exchange, manifold rationality and recursive time are inherent complexities which impede the process of developing network insight. However, a better understanding of them, as well as how they impact on each other, can create a powerful platform of guiding managerial principles which could facilitate the whole amalgamation process. As such, the barriers to developing network insight can also be seen as enablers if managed part of the amalgamation process (see Figure 2).

[Please insert figure 2 here]

The operation of the three enablers/ barriers to developing network insight is characterized by:

**Multilateral Exchange**

Network insight is the amalgamated outcome of multiple negotiations and heedful interactions at many different levels within and between organizations. A typical network negotiation will comprise several exchanges at regional as well as at headquarter levels, plus a plethora of related information gathering activities, often with third parties such as professional communities and public bodies. Multilateral exchanges introduce complexity and lack of transparency into the interaction process. They could be task specific as well as non-task specific. Managers’ openness to move beyond existing task-specific exchanges and engage in heedful interactions is crucial for their ability to embrace new possibilities and develop alternative perspectives of their surrounding network. Furthermore, linking exchanges between levels as well as encouraging coordination will increase the ‘heed’ of these exchanges.
Manifold Rationality

The creation of network insight is based on a manifold managerial logic. This logic is manifold in the sense that it emphasizes certain aspects that are important for individual managers and diverts attention from other facets which might be important for other managers in their surrounding networks. Moreover, individual managers might have personal reasons for doing things over and above what is 'right' for the organization (Webster & Wind, 1972). A manifestation of manifold rationality can be found in the distinction between instrumental rationality ("Zweckrationalität") and value rationality ("Wertrationalität") as described by Weber (1956). According to Elster (2000), value rationality is guided by its consequences or ends, whereas instrumental rationality is guided by means. Understanding and tolerating other managers’ underlying logic is key in the process of effective exchanges in the network and thus key in developing network insight.

Recursive Time

Network insight comprises an indeterminate outcome of recurrent business practices. Time is not understood as a linear process but as recursive practice. Organizational habits and institutionalized forms of interactions such as periodic business reviews, periodic task reviews, annual operating plans or annual negotiations or contractual agreements among firms are manifestations of recursive time. However, managers’ time perspectives are often not aligned, although rigid exchange schedules may indicate the opposite. Therefore, managers need to understand the characteristics and the importance of time for other actors as well as the exchange process itself.

The result of managing the complexities of multilateral exchanges, manifold rationalities and recurrent practices is described as network insight. It is an objectified managerial outcome that includes “hard elements” which are measurable such as concrete deliverables for customers or unique methods, innovative practices or organizational procedures, as well as
“soft elements” such as organizational learning and differential knowledge within a business network. Both hard and soft elements are inter-subjective and transcend the task-specific knowledge base of individual managerial cognitions. Before discussing any guidelines for managing the process towards network insight, we will first proceed with testing this amalgamation process in an illustrative example. The next sections will describe the applied methodology as well as an exemplifying case.

**Methodology**

This study is related to an empirical investigation that started with the objective of identifying how companies mobilize other actors in their existing surrounding network to work within the plans they develop. One of the most intriguing empirical findings of that research, articulated as the ‘first challenge’, demonstrated a considerable lack of network insight. We found that managers were preoccupied with their own tasks and concerns and were not always willing or able to develop a managerial capability to learn and mobilize other actors in their communities of practice. Their network pictures were consequently simplistically oriented towards immediate task satisfaction, allowing only a myopic view of the relevant network as well as the options open to them to penetrate into their cognitive maps. This was evident in the managers’ limited awareness about their supplier’s and customers’ existing concerns and the lack of knowledge about available strategic options or the ignorance of where certain capabilities and resources reside in a wider network.

During 2003 and 2004, we have critically revisited the cross-sectional empirical evidence in light of our main research target of understanding how and why organizations of different types develop or fail to develop network insight. The field work included in-depth interviews of senior managers such as business managers, key account managers, purchasing managers, sales managers, marketing managers and corporate lawyers who participated in the initial research. In addition, a research workshop was organized with managers from sales and
purchasing, project management and general management, representing a variety of industries as well as some of the best known blue chip manufacturers such as consumer goods and pharmaceutical companies, producers of semiconductors and also service providers (telecommunication, grocery retailing, and water suppliers). The enquiry method was based on written and verbal replies, multiple sources of information and triangulation of data (Janesick, 1994) in order to maintain a chain of evidence and develop converging lines of investigation.

**Exemplifying Case**

*International Utility Company Aquarius*

Aquarius is an international utility company, owned by two European waste disposal and utility conglomerates. Aquarius specializes in taking over utility companies from developing countries that want to privatize the sector, and was negotiating a deal with the South American government of M-Land (GoM). GoM invited tender offers for the majority of shares in the newly-privatized company MUS (M-land Utility Supply) that runs the country’s utility and waste services (see Figure 3).

[Please insert figure 3 here]

1. *Initial Tender Offer: Heedless Negotiations*

Aquarius bid as part of the tender without having a clear picture of existing possibilities. For example, Aquarius’ business managers did not know how many other bidders were involved, nor did they fully comprehend crucial elements of the underlying business plan which related to the willingness of certain actors, such as final consumers, to pay for some necessary infrastructure investments. The only insight that they gained early on was the knowledge that
the country’s regulatory body (RB), their main exchange and negotiation partner, was in fact weak and followed the instructions of GoM. Apart from that, Aquarius managers’ first impressions and images of the crucial issues were opaque. Interactions were purely task-centered, limited in their richness, involving only specific managers from one hierarchy layer, driven by argument-based exchanges without fostering mutual trust. Nonetheless, Aquarius was driven by normative expectations and past dispositions. Aquarius’ managers felt the pressure from their parent institutions because their company had not done a deal for 2 years. Therefore, their own identity as managers of a business unit was under threat if they could not clinch this deal.

During the negotiations and the subsequent information gathering, it eventually became clear to Aquarius that they were the only serious bidder. However, Aquarius’ managers had started the negotiations with a very lucrative offer to GoM regarding the amount of investments that they intended to undertake. According to their subsequent information regarding competitive offers, they had to decrease these investment promises during the negotiations. GoM constantly used the original numbers as a negotiation ploy. While this was relatively successful at the beginning, Aquarius realized midway through the negotiations that GoM could not pull out of the deal anymore (Aquarius was in the same position). Eventually, the negotiation equilibrium accrued which ‘oiled’ the subsequent synthesis of the positions that they took on the negotiation table. In the end, Aquarius got the deal which was around three quarter of the overall shares.

2. Renegotiations: Gaining Limited Insight

It transpired later that Aquarius’ managers had not reached a satisfactory level of understanding of their surrounding network: Aquarius’ managers realized that they could have got the deal for considerably less money as GoM urgently needed liquid cash because of the
country’s debt situation. They also realized that they did not have meaningful interactions with a number of crucial network actors such as the final consumers. Consequently, the underlying business model for the share valuation was totally skewed: Aquarius did not recover any investment costs from final consumers due to a militant unwillingness to pay for these. As a consequence, the new business haemorrhaged money during its first year and a renegotiation had to take place. This time, Aquarius’ managers had gained some additional contextual insight into the general situation, acquired through more frequent and often non-task related contacts with government officials. The company was able to use threats of pulling out of the deal which would have destabilized the government. It was half a year before a general election, and GoM actually had not made the privatization deal public. Any revelations would have destroyed GoM’s re-election chances. Consequently, Aquarius was able to negotiate better tariffs and investment conditions. However, the insight information that Aquarius had was ‘empty’, although their threat to pull out sounded credible: Aquarius, but not the government, were aware that the contract would have left them with huge hidden liabilities which they could never have accepted. Although the re-negotiation ended in a viable business model for both sides, the Aquarius director in charge lost his job due to the way he managed the initial negotiations and missing the important motivations, key drivers, and interactions of actors and processes underlying the deal.

Case Analysis

Our exemplary case shows how the amalgamation process that could lead to network insight was blocked, which caused Aquarius to engage in protracted and suboptimal interactions with an overall unsatisfactory result after the first stage for nearly all network actors involved. In terms of static elements, the relevant managers had a very simplistic initial network understanding: Notably, the motivation of crucial players such as consumers was not
understood. Furthermore, during the negotiation phase, these simplistic network pictures were not developed further, i.e. network positions were seen as static by the relevant Aquarius managers, even in light of contradictory information. The case demonstrates that Aquarius’ managers ‘under-managed’ their existing knowledge pool. They did not engage in extensive recursive activities, several knowledge aspects became sedimented in their network pictures. Normative expectations regarding Aquarius’ performance by its stakeholders acted as barriers to an amalgamation process. The result was the managers’ perception that a deal was needed to reaffirm their organizational identity. This meant that past dispositions (i.e. business models that had worked in previous negotiations) were used without adapting them to the specific network situation at hand. Hence, knowledge aspects of local context were constantly neglected by the managers who were ‘inward’ looking in their managerial emphasis instead of interacting with other network players to enrich their understanding of exchange system on which the deal was negotiated. Consequently, the activities of the managers were not characterized by heed. On the contrary, they were blinkered by a ‘given’ mental model (previous success characteristics, initial understanding of network pictures). Ambiguity and new often puzzling and contracting information was pushed aside and not used for an amalgamation process. Furthermore, the Aquarius managers did not exchange their specific views on the network and its characteristics between them, falling back on isolated network pictures. No attempt was made to develop their network understanding, i.e. via extensive interactions with other network actors. They limited these interactions to some key persons and focused on task-oriented exchanges. Consequently, the amalgamation process towards network insight was hindered a) by multilateral exchanges which were actively discouraged and where they existed they were perceived as complexity, and b) by manifold rationality as network actors remained ‘entrenched’ in their own logic without sufficient understanding of the business models, motivations, and restrictions guiding other peoples actions. These
became powerful barriers that hindered Aquarius from gaining network insight in their initial negotiations.

This situation changed somewhat after Aquarius had become part of the network as majority owner of MUS. Especially the direct, daily interactions with customers caused a large amount of contradictory information which created knowledge that could not be meaningfully correlated with the initial network pictures that Aquarius held. In fact, much of the new information which was context-rich, came from a variety of different exchange partners on different levels, and was related to many different tasks, caused Aquarius’ managers to discard their original network pictures. It was also forced by the recognition that their business was loosing money without hope of recovering a profitable situation. The relevant Aquarius managers were forced to exhibit ‘heed’ in their interaction characteristics in order to remedy the situation and make sense of the vast amount of contradictory data. Consequently, in the second, renegotiation phase, Aquarius’ managers were much more sensitive towards local context, had a holistic understanding of multilateral exchanges, and integrated and shared their network insights freely with other network partners in order to find a common, inter-subjective solution.

CONCLUSION

Weick (1993) reminds us that “organizations can be good at decision making and still falter. They falter because of deficient sensemaking. The world of decision is about strategic rationality. […] The world of sensemaking is different. Sensemaking is about contextual rationality.” (p. 636). Network pictures as sense-making representations are not sufficient to incorporate this contextual element. Our illustrative case demonstrates that the managerial process of integrating dispersed pieces of subjective, task-related network views is a real
challenge for any company and that a better understanding of developing network insight can provide three significant advantages.

Firstly, moving out of the boundaries of task-related actions, we can increase our understanding of actors’ potentials and their perceived options. Our findings indicate that existing potentials do not come only from the idiosyncratic capabilities of companies but are essentially derived from the firm’s membership in networks of business relationships. This aspect becomes tremendously important when organizations enter new business networks where they have not operated before. To escape the narrow boundaries of task-related actions, such as the task of a bid described in our case, managers need to move beyond their own impressions, images and identities (network pictures) and open themselves by building new relationships and heedful interactions.

Secondly, a wider managerial perspective that rests on the potential inherent in multilateral exchange, manifold rationality and recursive time helps us understand the essential role of interaction and negotiation to resolve inherent conflicts in every aspect of business life. It seems that managers are not only unable to fully construct and spell out in advance individual views held by other actors, but these views are dynamic and continually re-configured through the ongoing negotiations undertaken within communities of practice. This underlines the importance of understanding the rationalities inherent in unarticulated interests of other actors, as well as the importance of institutionalizing business forms of frequent interactions through periodic business and task reviews. Without a deep understanding of others’ logic and without the existence of recurrent organizational practices, managers will not be able to conduct multiple exchanges, and without comprehensive multilateral exchanges with other actors managers diminish their ability to embrace possibilities that exist in their surrounding networks.
Thirdly, an understanding of the process of developing network insight helps us to understand the creation of competitive advantage within a network, as well as for the network itself. By developing network insight, managers gain clarity of sensemaking. The created insight incorporates new options and possibilities for managing in networks. These new potentials are not a subjective interpretation that is inferred from a variety of cues. Instead, they are inter-subjective and collective. Network insight is manifested in information, data and knowledge, in such a way that managers can use it practically in their organization for differential positioning and action. Thus, developing network insight can lead to a better assessment of the appropriateness of managerial action.

Despite the relevance of developing network insight, our findings demonstrate a considerable and widespread lack of network insight by many organizations, be it in specific situations regarding clinching a deal, or in non-specific situations regarding an assessment of the driving forces within a network. The evidence hitherto is that managers face tremendous difficulties in integrating disperse pieces of specialized knowledge held by various actors in their surrounding networks. However, by understanding the barriers to network insight, managers can recognize that the process of amalgamating dispersed pieces of inherent possibilities is manageable.

**MANAGERIAL IMPLICATIONS**

Managers need to understand that the process that ultimately leads to network insight does not occur automatically but needs to be guided carefully. Insight is linked to individual and collective ‘action’ (Tsoukas, 2000) which has to be ‘heedful’ (Weick and Roberts, 1993). Therefore, based on our analysis of case examples, we propose a set of guiding principles which could be used in understanding, developing and improving network insight. Managers
and management teams could carry, champion and mediate the following set of guiding principles:

- Subjective knowledge that is inferred from cues is an inherent trap that can be avoided. Managers’ knowledge should be tested and improved through several layers of heedful interactions and exchanges within the organization and with different exchange partners.

- Exchanges need to take place at all possible levels, at regional units and at headquarters, internally between different departments and individuals as well as externally between organizations and other groups and public bodies. Cross-hierarchical information exchange is to be encouraged.

- Managers’ openness to emerging business opportunities requires the inclusion of non-task related exchanges and the ability to embrace new possibilities. This is often linked to a non-task related understanding of contextual variables alien to the managers’ network pictures.

- Managers’ underlying rationales should not divert their attention from other rationales, motivations, and restrictions which might be important for other actors and organizations.

- Managers need to distinguish between value rationality guided by its consequences and instrumental rationality guided by its means.

- Knowledge needs to become objectified in form of shared data and shared information so that it can be used practically for differentiating positioning. Individual knowledge or company-centered knowledge is not sufficient for exchange insights.

- The achievement of objectified knowledge requires more than mere research endeavors. It requires managers’ subsequent action to test and codify what is feasible
in their surrounding network. Examples of subsequent managerial action include *pilot projects* or *test markets*.

- Managers should think about time as recurrent practice of *periodical business reviews, negotiation episodes* or *contractual agreements*. These are resolutions that contribute to an incremental development of network insight.

Following these guiding principles, managers’ effort to find what is possible in their surrounding networks becomes a way of life. It is an indeterminate managerial effort through multilateral interactions. Given the inherent difficulties involved in developing and sustaining this effort, managers need to take the challenge of developing networks seriously and guide the involved process heedfully.
REFERENCES


Table 1: Input from Network, Knowledge and Collective Mind Perspectives

<table>
<thead>
<tr>
<th>NETWORK</th>
<th>KNOWLEDGE</th>
<th>COLLECTIVE MIND</th>
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<tbody>
<tr>
<td>• Markets are seen as networks of actors</td>
<td>• Knowledge is seen as an achievement that needs to be worked for</td>
<td>• Collective mind is seen as an ongoing social process</td>
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<tr>
<td>• Cognition evolves within networks</td>
<td>• Knowledge is dispersed and often contradictory</td>
<td>• Collective mind starts with action before it becomes capacity</td>
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<td>• Network view shapes actors’ identities</td>
<td>• Three enacted tensions need to be managed:</td>
<td>• Heedful interactions as foundation</td>
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<td>• Exchange relationships and dependencies</td>
<td>- normative expectations</td>
<td>• Diversity and inter-subjectivity</td>
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<tr>
<td>pivotal</td>
<td>- past dispositions</td>
<td>• Ambiguity is tolerated</td>
</tr>
<tr>
<td>• Interactions among actors affect</td>
<td>- local context</td>
<td>• Collective mind needs to be managed</td>
</tr>
<tr>
<td>network positions</td>
<td>• An ongoing recursive process exists</td>
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Figure 1: Developing Network Insight

- Network Pictures
  - Impressions
  - Images
  - Identities

- Network Exchanges
  - Barriers
  - Enablers

- Network Insight
  - Objectified
  - Outcome

Amalgamation Process

Degree of Subjectivity

Degree of Objectivity
Figure 2: Enablers / Barriers to Amalgamation Process

- Multilateral Exchange
  - Headquarters / regional
  - Customers, suppliers, competitors
  - Professional / public bodies

- Manifold Rationality
  - Personal / organizational reasons
  - Instrumental rationality
  - Value rationality

- Recursive Time
  - Recurrent practices
  - Business / task reviews
  - Annual negotiations / agreements
Figure 3: Utility Services Network

Parent Organizations

Aquarius

Competitors

RB

GoM

MUS

Consumers

Interaction / Negotiation

Competition
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