The utilisation of network pictures to examine a company's employees' perceptions of a supplier relationship

Sheena Leek [a,*], Katy Mason [b,1]

[a] Birmingham Business School, University of Birmingham, Edgbaston, Birmingham B15 2TT. United Kingdom
[b] Lancaster University Management School, Lancaster, LA1 4YX, United Kingdom

ABSTRACT

Network pictures have been perceived as providing a picture of a company's position within a network ([Ford, D., Gadde, L.E., Håkansson, H., and Snehota, I. (2002), "Managing Networks," IMP Group in Asia, 11th–13th December.]; [Ramos, C., Ford, D. and Naudé, P., (2005), "Developing Network Pictures as a Conceptual Device," First Annual IMP Journal Seminar.]). This exploratory paper aims to investigate the application of network pictures at the dyadic relationship level. Taking the perspective of employees from a single company, this research examines the perceptions of a specific supplier relationship. The study takes the network pictures of three key individuals and examines the boundaries of their network pictures, their lines of communication, their perceived relationship atmosphere and the impact of environmental factors. Unsurprisingly, the boundaries of each network picture, the frequency of communication and perceptions of the relationship atmosphere varied systematically with their managerial level and function. In this regard, the findings suggest that network pictures may act as a useful sense-making tool for developing and sharing relationship information both internally, between employees and externally, with the supplier. Further research is required in order to confirm whether these findings are applicable to other dyadic relationships and to investigate the implications of network pictures as a tool for managers.

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1. Introduction

There has recently been increasing academic interest in the concept of network pictures (Ford et al., 2002; Ramos et al., 2005; Henneberg, Mouzas, & Naudé, 2006). The network approach and network pictures evolved out of the interaction approach which concentrated on dyadic episodes between two companies and the development of the relationship between the parties. The network approach evolved to encompass the interactions and relationships between a number of companies. Network pictures are conveyed generally as a tool for making sense of a company's broad network and for use in making strategic decisions (Ford et al., 2002; Ramos et al., 2005; Henneberg et al., 2006). However, to-date, network pictures have only been applied to the broad network level and not at a relationship level. Applying network pictures to the relationship level would enable researchers to examine various perspectives of dyadic relationships. It would enable the comparison of the perceptions of individuals within one or both companies in the relationship and the dynamics of interaction between them. Various aspects of a specific relationship could be analysed e.g. the flow of operational information or the level of trust. Analyses of individual and multiple network pictures could provide academic insight into companies' management of relationships.

The aim of this paper is to utilise the concept of network pictures to focus on a relationship between two companies and examine how individuals within one company perceive the relationship. In particular, it examines the individuals' relationship boundaries, the flows of communication, the individuals' perceptions of the overall relationship atmosphere and the impact of the environment external to the immediate dyadic relationship.

This paper begins with a review of the network picture literature and examines the level at which network pictures have been used and the value they offer. A description of the dimensions of network pictures adopted in this research is presented. The findings describe some of the insights obtained through using network pictures as a tool e.g. how network pictures vary with managerial level. Finally, the discussion explores further academic questions arising from the results and the implications of network pictures as a tool for managers.

2. What are network pictures?

Although the term network pictures is quite new, similar concepts have appeared in various streams of literature including the strategy literature on managerial cognition (Porac, Thomas, & Baden-Fuller, 1989; Hodgkinson, 1997; Osborne, Stubbart, & Ramaprasad, 2001) and

* Corresponding author. Tel.: +44 121 414 6226; fax: +44 121 414 7380.
 E-mail addresses: S.H.Leek@bham.ac.uk (S. Leek), k.j.mason@lancaster.ac.uk (K. Mason).
 [1] Tel.: +44 1524 594840; fax: +44 1524 59 39 28.

organisational behaviour (Weick, 1979; Meindl, Stubbart, & Porac, 1994). Constructs from past network research, such as network horizon and network context, overlap with the concept of network pictures (Gadde, Huemer, & Håkansson 2003; Mattsson, 2002). Anderson, Håkansson, and Johanson (1994) define the network horizon of a firm as "how extended an actor's view of the network is." Therefore, while networks are essentially without boundaries, the actors within networks will have a limited view of the extent of the network. Anderson et al. (1994) go on to define the network context as, "The part of the network within the horizon that the actors consider relevant". While no single definition of network pictures has been widely adopted, the development of the concept can be observed. For example, in 2002 Ford et al. described network pictures as referring to

"the views of the network held by participants in that network. There is no single, objective network and different companies and the individuals within them will each have a different picture of the extent, content and characteristics of the network. This picture forms the basis for their analysis and actions. Their network picture will depend on their own experience, relationships and position in the network and will be affected by their problems, uncertainties and abilities and by the limits to their knowledge and understanding."

In 2005 Ramos et al. put forward a refined description of network pictures as,

"a representational technique that aims to capture or illustrate views that specific actors have of the networked environment within which they operate."

Similarly, Henneberg et al. (2006:409) suggest that

"the notion of network pictures refers to the different understanding that players have of the network. It is based on their subjective, idiosyncratic sense-making with regard to the main constituting characteristics of the network in which their company is operating. These perceived pictures form the backbone of the manager's understanding of relationships interactions and interdependencies and constitute therefore an important component of their individual decision making processes."

These definitions incorporate a number of terms including the extent of the network, the content of the network and the characteristics of the network which need further investigation to clarify any ambiguity and determine how they can be conceptualised in order to obtain focused network pictures. However, it is unlikely there will be a definitive way of conceptualising the content and characteristics of network pictures as their application may vary according to their use. While Ramos et al.'s (2005) definitions state that individuals each have their own idiosyncratic network picture, Henneberg et al.'s (2006) definition takes this a step further. They suggest that manager's are assimilating their employee's network pictures into their own to create an overall picture upon which they base their decisions. This raises interesting questions for researchers such as, from whom is the manager gathering network pictures — from employees in their own company, employees from the supplier/buyer company or from other company employees in the network? Similarly, can a network picture be transferred from one individual to another? It may not be possible for a manager to assimilate another individual's network picture in its entirety as he/she cannot incorporate the individual's experiences or feelings. Managers may therefore take aspects of the individual's network picture that is made available to them by the individual. How do they combine the information from an individual's network picture with their own? When there is information that reinforces the manager's own perception it may be that there is an additive effect. If there is new information or conflicting information a manager will need to interpret it in the context of their own knowledge and determine its importance, before deciding whether to incorporate it into their own network picture and how it is going to alter their network picture. If researchers can identify what sources of information managers are using and how they are compiling their network pictures, researchers may be able to identify optimal sources of information and potential sources of bias or error which may affect subsequent relationship management decisions.

3. Levels of network pictures

There is a certain amount of ambiguity regarding the level at which network pictures should be applied. Möller and Halinen (1999) suggested four levels of network management which could be used in determining at what level network pictures could be applied (see Table 1). Henneberg et al. (2006) suggest that network pictures constitute what Möller and Halinen (1999) described as the level two in their network management model and it is at this level that they conduct their research. Ford et al. (2002) show how the example of IKEA is set at a company level i.e. a strategic level.

Network pictures could be applied to other levels of Möller and Halinen's (1999) network management model. It would be particularly interesting and useful for the development of academic theory to apply network pictures at level four of Möller and Halinen's (1999) network management model. This seems valuable because a company's network position evolves out of the individual episodes both within a company and between companies which make up a relationship (Ford & Redwood, 2005; Kamp, 2005). The problematic or smooth

Table 1
A framework of the four levels of network management.

Level of management	Key issues	Research using network pictures
Level 1: Industries as Networks — Network Visioning	Networks, as configurations of actors carrying out value activities form the "environment" the firms are embedded in. Understanding networks, their structures, processes and evolution is crucial for network management.	Ford et al. (2002)
Level 2: Firms in the Network — Net Management	Firm's strategic behaviour in networks can be analyzed through the focal nets they belong to and the position and roles they play in these nets. Positions are created through business relationships. Capability to identify, evaluate, construct and maintain positions and relationships is essential in a network environment.	Henneberg et al. (2006) Ramos et al. (2005)
Level 3: Relationship Portfolios — Portfolio Management	Firm is a nexus of resources and activities. Which of these activities are carried out internally and which through different types of exchange relationships is a core strategic issue. A capability to manage a portfolio of exchange relationships in an integrated manner is required.	
Level 4: Exchange Relationships — Relationship Management	Individual customer/supplier relationships form the basic unit of analysis in a network approach to business marketing. Capability of creating, managing and concluding important relationships is a core resource for a firm	This research

Adapted from Möller & Halinen, 1999.