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Todeva, Emanuela

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Business Networks¹

Emanuela Todeva, University of Surrey

Definition

Business networks (BN), according to Todeva, are sets of repetitive transactions based on structural and relational formations with dynamic boundaries that comprise of interconnected elements (actors, resources and activities). Networks accommodate the contradictory and complementary aims pursued by each member, and facilitate joint activities and repetitive exchanges that have specific directionality and flow of information, commodities, heterogeneous resources, individual affection, commitment and trust between the network members.

Conceptual Overview

The concept of BN is similar to the concepts of culture, organisation, or relationship which are overloaded with connotations of personal experience and academic discourse, and are open to limitless interpretations. One of the earliest formal definitions of networks refers to a specific type of relation, linking a defined set of persons, objects or events, and the emergent structure is defined as a configuration of present and absent ties between the actors. While present ties are the existing relationships and exchanges between members, absent ties in BN could be potential relationships, or needs for resources and information.

Wellman and Berkowitz offer another definition of networks as social structures - or ordered arrangements of relationships that are contingent upon exchange among members of social systems. This definition could easily be applied to BN as socio-economic structures of transacting economic agents. Exchanges in BN could be interpreted both as input-output relations between actors, and as transformation of resources, information, symbols, meaning and value, including economic value.

BN are also seen as sets of connected exchange relationships between actors controlling business activities, as resource flows between different organisational units based on intra-organisational and inter-organisational linkages, or as an integrated and co-ordinated set of ongoing economic and non-economic relationships embedded within and outside business firms. BN are defined also as a set of three or more interconnected actors, or as two or more connected dyadic business relationships. A strategic BN is defined as a system of small or mid-size firms and strategic business units, functional and regional units, suppliers, controlled

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¹ In: International Encyclopedia of Organization Studies, 2007, Sage.

firms, and other partners that are linked together in order to satisfy key stakeholders by optimizing specific core competencies and improving critical business processes.

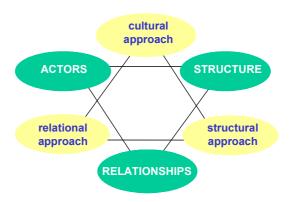
The common theme between all distinctive conceptualisations of the term BN is that they all refer to a *structural formation which facilitates interactions and exchanges between actors*. BN are structures of relationships between heterogeneous actors interacting for a business purpose. The heterogeneity of actors refers to business organisations, individuals within them, managers that make decisions and choices on behalf of an organisation, various institutions that govern relationships, technologies, industry standards and other social artefacts that participate in the framing and the development of business relationships.

Traditionally the literature supports the view that networks provide a special governance structure, where trust conveys more commitment than hierarchy and the loose coupling provides variation close to that of a market. The main benefits from the network form of organisation are: superior learning, enhanced legitimation and status, and a range of economic benefits.

Critical Commentary and Future Directions

There are three dominant approaches to analysis of BN – the structural/positional approach, the relational approach, and the cultural approach (Fig 1). The theoretical underpinning of these approaches comes from the work on social network analysis - i.e. *structural/positional approach* with contributions from Knoke and Kuklinski, Burt, Freeman, Wellman and Berkowitz, Nohria and Eccles, Wasserman and Faust; the research on industrial markets and supply chain management - i.e. *relational approach* with contributions from Hakansson and Johanson, Johanson and Mattsson, and the IMP Group; the developments in the field of knowledge and technology networks and actor-network theory - i.e. *cultural approach*, developed by Latour, Callon, and Law; and a range of economic and strategic management theories that have discussed the behaviour of interlinked economic agents.

Fig. 1. The Network Diamond (Todeva, 2006)



One of the earliest approaches to network analysis is the structural/positional approach. It has made significant advancements to recognise the embeddedness of market transactions in the structure of social relations. The theoretical foundations of structural analysis of networks derive from various theories of social and generalised exchange that assume interaction, purposeful action of actors, and power dependence that emerge with social structure.

The relational approach builds upon the advancements of the structural/positional approach and explores dyadic business relationships with more depth. It accepts that the actors are positioned in the industry value chain, and this determines resource flows and resource dependencies. In addition, the relational approach recognises that these resource flows take the form of explicit transactions that are governed by contracts, formal agreements, and legal obligations. This analysis particularly aims to disentangle the elements of the BN relationships and to explain strategic intent and collaborative strategic behaviour of firms.

The cultural approach has argued that cultural artefacts such as knowledge, technology, text and institutional norms can actively frame interactions and human decisions and choices, and hence, can affect network structure. Norms are dynamic systems of beliefs and attitudes. They can be institutionalised in legal documents and enforced by governments. It is argued by the culturalists that both texts and institutions as beholders of norms affect and frame in a powerful way firm behaviour and hence, they are active members of the business network. This is summarised by the cultural analysts as the 'actor-world', or the world of all entities that interact with each other, affect each other, framing both the context and the outcomes from their interactions. BN particularly, are judged by the results, which sometimes are re-invested into the network. One of the main advancements to network theory brought by the cultural approach is the notion of network processes, such as selection of partners, their enrolment in the network, the translation of network rules and properties of the network actors, the staging of activities and interactions, the representation of interests and view-points, and the overall framing of the network dynamics.

At present all three approaches employ their own methodologies and there is not much attempt of cross the boundaries of each approach. The structural / positional approach employs structural measures to whole network studies ignoring internal dynamics and variation. The relational approach employs case studies and compares across cases. The cultural approach uses the inter-subjectivity argument, where relationships are derived at from subjective deconstruction and analysis of networks.

The analysis of BN is focused also at three complementary levels – the level of actors, the level of relationships, and the level of the entire network configuration, or network

structure (Fig. 1.). Actors' behaviour is interpreted in the context of multiple motivation theories, network relationships and network configurations and refers to the *nodes* - identified as the actors, agents, or network members, i.e. firms, managers, individual entrepreneurs, institutions. Network *relationships* or ties and links are studied in the context of actors' strategic decisions, choices, and the impact from the structural configuration of the network. Network structure is studied from the perspective of organisation theory, social network analysis, and strategic management.

Gulati and Gargiulo contrast the sociological approach to interorganisational / interfirm relationships with the strategic one. They emphasise that sociologists, such as Burt, view the network formation as driven by exogenous factors that trigger a responsive behaviour by firms. Gulati and Gargiulo argue that partner's attributes matter, and the selection of partners or the establishment of relationships with these partners are endogenous processes that drive the network formation. The fundamental endogenous factors that frame network dynamics, identified by Gulati and Gargiulo, are: relational embeddedness of actors (or previous relationships with other organisations); structural embeddedness (previous alliances with a common third-party); positional embeddedness (or the centrality position of an organisation in its social network and configurations of business relationships); as well as the structural differentiation of the overall network. Gulati and Gargiulo argue that these endogenous factors assist in the process of selecting strategic partners and building network relationships with them.

Economic theory has set-up slightly different agenda from strategic management theory, perceiving BN as composed of interrelated economic agents involved in a repetitive transactions and exchange of products, services and market information. The range of business networks conceptualised in this way include supply chains, entrepreneurial networks, and subsidiary-headquarter relationships in multi-national corporations, as well as more complex formations of research and development networks, industrial clusters and strategic alliance networks.

The interpretation of BN by sociologists and social anthropologists is much more focused on the interaction side of the links and as such, sociological theories make a significant contribution to our understanding of the dynamics of BN. Part of the same body of knowledge is the discussion on trust and social capital. Recent research concludes that competitive advantage at firm level arises from the balance between control and trust, and the balance between commitment, learning and knowledge protection in the context of inter-firm relationships.

The difficulty in analysis of BN is that in many cases firm boundaries are blurred by shareholding interests, commodity flows, and resource commitments, that spread across and penetrate the entire network. This undermines in some cases the notion of clear firm boundaries. As more control is distributed amongst different members of the network, more interconnected are the members overall, and more complex exchanges take place within the network. If we can learn more accurately to understand the patterns of networking and the dynamics of network relationships, we can begin to tap their full potential for decision-making and for coordination of collective action.

The main challenges for business network theory are to consolidate different theoretical frameworks and to develop methodological approaches that address business networks in a holistic way. Simultaneous analysis at the level of actors, relationships and network structures is essential in order to reveal the complexity and the dynamics of business network configurations

See also: networks, keiretsu, buyer-supplier relationship, value chain

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