THE NETWORK-FIRM AS A SINGLE REAL ENTITY: BEYOND THE AGGREGATE OF DISTINCT LEGAL ENTITIES, BY VIRGILE CHASSAGNON. DISCUSSION

Carlo Drago
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University of Naples “Federico II”
The nature of the firm: The central point discussed in the paper.
The need for a quantification to measure consistently the firm phenomenon.
Key quantitative point: how to measure firm structure and firm efficiency.
Is it possible to model and measure such a complex entity as a network-firm?
Which quantitative methodology to use in practice?
How can we measure the dynamics over the time of a firm's features? (generalizing the analysis over the time)
The central point of the paper: the Network Firm as a real entity (NF)

- The paper criticises the dominant theory (nexus of contracts) “…to propose some theoretical foundations of the firm as a real entity…”
- “…the proposition that the firm is a real entity is extended to a specific form of vertical economic organization: the network firm (NF)”
- “The NF is not an aggregation of distinct legal entities but a single real entity coordinated by a hub firm that prevents the whole from dissolution…”
A very important final question about firm cohesion through integration...

- “Does equity ownership generate more cohesiveness than a less formal integration...?"
- The implicit final point of the paper is about the need of measuring the firm and its cohesiveness.
- Secondly we need to compare the firm structure over the time to check its dynamic cohesion.
Can we measure the Network Firm (NF)? two strategies

- We need to model and measure the relationships in a Network firm. We can use at least two distinct strategies:
  
  1) **System Dynamics**: we may try to model the firm as a dynamic complex system (see Sterman 2000)
  
  2) **Social Network Analysis**: we may try to capture the structures that generate the dynamics over the time (Wassermann Faust (1994))

- However, it is difficult to identify effectively linkages and relationships. Which linkages considering in practice?
Over the last years several new studies of networks. It is possible to measure the social structure of a firm by modeling and measuring the linkages between a hub-firm and other entities (For a reference in the field of SNA: Wassermann Faust (1994))

Cohesion of a single firm network can be measured

At the same time it is possible to compare over the time these phenomena and so to apply this quantitative methodology to the network firm dissolution (See Snijders T.A.B. (2001 and 2005))
Is the Network Firm a whole or could it be considered as a sum of different parts...

Can different parts of a network firm conflict with each other?

One example is board of directors (interlocking directorships). Are they a source of economic or financial improvement or not...? Are they an evidence of a more complex organization (a collusion of various firms over the time...)?
Empirically the reality shows interconnections between firms, for example by considering its board of directors (interlocking directorships and the board of directors network)… (Davis, G., M. Yoo and W.E. Baker (2003), Elouaer 2006, Maati 2007 Santella Drago Paone 2007)

…and if the linkages (and the different parts) remain persistent over the time, is it formal collusion or not? … Another relevant problem is measuring and detecting firm collusion (Santella Drago Polo 2007)

…need we consider the firms involved as different entities or not…?
Dynamic NF Theory: Possible applications

- **Exploratory analysis** (i.e. Network structure of the firms, analysis of relationships in a firm)
- **Confirmatory analysis** (i.e. Relationship between structure and other variables such as performance)
- **Graphical statistics** (i.e. Comparing firm structure over markets)
Bibliography