

Economics of Business Networks: Theory and Empirics of the Structure and Properties of the Network among Trading Firms

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In trading relations and marketing of products of producing firms, network relations of dealers play an important role in the delivery of products and consumer satisfaction. Such dealer networks are strategically formed and the resulting network structure implies important properties. From simple random graphs to complex networks, the properties are evaluated with different parameters. This paper attempts to understand the topology of such an empirical network of dealer relations in marketing. The estimated network parameters are compared with the simulated structures of the standard network topologies of random graph, scale free, p^ and rewired lattice networks. The results show that the empirical dealer network is close to that of a rewired lattice structure of social networks.*

I Introduction

There are various ways in which firms form relationships that affect their market outcomes. They can collaborate, merge, produce joint products and ventures, contract on specific supplier relationships, collude, etc. As the cost of production, and the resulting quantities produced, and prices vary by different relationships between firms, the formation and resulting structure of network relations among them assumes special significance in their decisions. It is important to understand how a business network develops as it aids in understanding the growth of the market, the level of reach that a product has, the importance of a particular dealer, the need to appoint another dealer in an area, etc. In business, it is common to observe such sorts of networks of business relations among the dealers of marketing products. It is not simply the network of dealers that matters for business, rather it is the strategic aspects of network to boost transactions and serve the consumers effectively and efficiently. In order to effectively manage the supply chain, it is in the interest of the dealer to procure the product that the consumer likes to buy from other agents of the product when the same is not available with the agent. This supply chain relation among the dealers evolves the network relations to a particular structure and such network has some basic

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