Final version

Tibor Mandják – Judit Simon: Interaction and complexity, Navigation from Marseille to Budapest

In Marseille IMP conference navigated between dyads and networks (Cova et al. 2010). The next conference in the land-locked Hungary will get a line on interactions and complexity. Both are challenging for researchers and managers.

The interaction, many results and a lacking

Leading scholars of the Industrial Marketing and Purchasing group (IMP) summarize the results of more than 30 years empirical and theoretical research in the business field (Hakansson et al 2009). IMP researchers view of business relationships and business networks as the ontological characteristics of business markets. Two models originally stemming from empirical material from multiple major research projects, as IMP1 and IMP2 and inspired from IMP thinking and conferences describe the essential of business world.

The interaction model (Hakansson 1982) explains the main characteristics and processes of a business relationship between the buyer and the seller, or in a more general view between two organizations. This dyadic model emphasizes the importance of different exchange episodes (product, information, financial and social) between the two partners, the similarity of purchasing and selling (marketing) activity and the double embeddedness of the exchange episodes. They are embedded in the atmosphere existing between the two organizations and the two organizations are embedded in their (market) environment. One of the greatest contributions of the interaction model is the recognition of the fundamental role of interactivity. The model describes the interaction process in short term as an ensemble of different exchange episodes such as product or service, information, financial and social exchange episodes. In long term exchanges episodes are building up lasting business relationships.

The interaction model is focusing on the buyer - seller relationship, it is dyadic by its nature. Thus it does not directly deal with the role of third parties who can influence the relationship. The results of a second huge empirical research (IMP2) made possible to discover of the reality of this interconnectedness, in other words of the business network. The A-R-A model (Hakansson and Snehota 1995) apprehends the three dimensions of a business network. Activity links, resource ties and actors bond create and weave the very complex and complicated business networks. Business network is considered as an open system and network horizon is the slice, or the window as an observer either a researcher or a manager can see and catch a part of it. In the spirit of Kristian Möller's approach the whole business network is consists of so many different business nets and generally only these business nets are really perceived by managers and research people.

As the A-R-A model developed horizontally the interactive model and not in its deepness the question of interactivity is stay open. Applying the interaction model and the A-R-A model we have a nice and wholly realistic picture of business markets but something in deepness, something absolutely fundamental is seems to be clarified. What is really happening between two organizations when they do business, when they do the exchange? What does it mean the interaction? However a clear definition of the interaction is lacking from both model.

The interaction, an academic challenge

Two years ago in Uppsala in a crowded session of the IMP conference the basic ideas of the real content of interactivity were presented (Ford et al 2008). A year later the deep and multidimensional discussion of interactivity was published (Hakansson at al 2009). Business interaction is "a process that occurs *between* companies and which *changes* and *transforms* aspects of the resources and activities of the companies involved in it and the companies themselves. The substantive nature of business interaction gives it a particular existence in time and space, which in turn has important consequences both for the structure of the business landscape and processes within it. In this way, interaction is at the heart of business development" (Hakansson et al 2009:27).

In a larger context this conceptualization is fitting well the social or sociological understanding of interaction. One of the classics of economic sociology, Georg Simmel was the first who emphasized the fundamental social role of interactions. In his view the whole society is constructed by interactions. According to Simmel (1908) it is the *mutual interaction that is the essence of social relationships*. During interaction parties mutually influence each other and these interactions build up the society (Lallement 2004). Taking into account Simmel's interaction theory, business exchanges are social relationships, too, since they contain the minimum of social mutuality (Chantelat 2002). Social relationships connect two social actors, and organizations are social actors as well. It means that business relationships are naturally social relationships as well.

Simmel emphasises that social actors are not only connected through direct interactions, but "they are connected with others through the framework of interactions" (Simmel 1908, quoted by Bernoux 2004:117). Simmel (1908) extended the analysis of interactions between two actors by elaborating on how they affect the activity of others. When examining the social effects of competition, he introduced the term *tertius gaudens*, the essence of which is that the winner and the beneficiary of the interaction between the two actors is a third party. The actor may benefit from the competition between B and C, so that he could sell his product to him or could purchase something from him. Swedberg (2003) quotes one of Simmel's nice and thought-provoking statements. "Innumerable times it [that is, competition] achieves what usually only love can do: the divination of the innermost wishes of the other, even before he becomes aware of them. Antagonistic tension with his competitor sharpens the businessman's sensitivity to the tendencies of the public, even to the point of clairvoyance, in respect to future changes in his public's tastes, fashions, interests" (Simmel 1908, quoted by Swedberg 2003:22). Let us not forget that the author put this down more than 100 years ago.

Emphasising the social nature of interaction and in consequence the social characteristics of the dyad and the networks is in deep concordance with the holistic approach (Cova et al. 2010) of the editors of this special issue. In this conceptual introductory article the authors present a meta-analysis of the different network approaches. Meta-dimensions describing the network are deeply embedded and socially constructed (Cova et al. 2010). These meta-dimensions bring out the organic togetherness of economic and social phenomena.

Interaction and complexity

The conceptualization of interaction (Hakansson et al 2009) put the IMP approach into a larger sociological view. Certainly it can give a more comprehensive explanation force and possibility of the whole IMP philosophy. However it asks some questions as well. What are the consequences of interaction on management?

Most of the approaches and the tools of management in general and of customer management in particular are focused and based on one company or organization. They are dedicated to understand the situation and to plan execute and monitor actions in the point of view of the focal organization. Decisions are made inside the organization and performance is measured from this standpoint. There is much less academic knowledge about the management in a mutuality situation ...

Take the example of a tire producer and his OEM customer. The business exchange happens between them in the framework of a business relationship. They exchange information about the tire itself, the specification, the exigencies of the OEM company, the business conditions, perhaps the future demand or the research and development activity of the supplier. Based on their agreement the tire firm produces and deliveries the commanded quantity and the OEM receives the products and pays for them. All of these exchange episodes are handled and supported by the personal contacts among the involved people both at the tire manufacturer and at the OEM. Actor bonds guided activity links and resource ties are necessary to realize the business, exactly as it is explained by the two main IMP models.

Applying the complexity approach of Morin (2005) we argument that in the point of view of one actor (supplier or buyer) the relationship has three different causalities. The *linear causality* means the logic process of the resource utilization. In each activity there is always present a multi-dimensional self regulation process means a *circular retroactive causality*. *Recursive causality* is the third type of causalities which are creating the complexity of a business relationship. Applying this complexity approach on the above example gives some insight of managerial problems.

Complexity a managerial challenge

What kinds of resources are necessary to create a demanded outcome? This is the main question of the linear causality. The demanded outcome is the new resource combination what an organization is creating, offering and delivering to its customers. In other words it is the

customer value creation process. Normally in the business world it is happening inside a business relationship. In our example the linear causality is expressed by the particular types of tires demanded and ordered by the OEM.

Anyway to be able to create this customer value the organization must be regulated, it means that she must take consideration at the same time about the customer perceived value, her available resources and applicable technology. (It is the circular retroactive causality.) For the tier producer it means a more dimensional planning and organizing activity focusing on the particular customer demand in one hand and on the resource sharing and ensuring on the other hand.

It means that the product and the relationship in which it is sold produce each other. (Recursive causality) To be more precise a certain product and a particular relationship generate each other. In the case of the tire producer the particular sort of tires sold to the OEM create a special unique relationship with this buyer and the existence of this relationship demands to maintain (or develop) the specification and the volume of tires.

These three types of causalities create the complexity of the relationship itself. We can discuss about a double complexity if we take consideration of the mutual characteristic of the business relationship. It means that the three causalities exist at the same time at both parties but certainly they are perceived in a different way. One of the main managerial problems is occurred by this double complexity of the business relationships.

In fact this double complexity could be caught by the concept of interaction. As interactivity is "a process that occurs *between* companies and which *changes* and *transforms* aspects of the resources and activities of the companies involved in it and the companies themselves "(Hakansson et al 2009:27). Condition the concept could be operational. Furthermore an adequate measurement system or tool must be developed. What kind of methodology is applicable for a circular, recursive phenomenon as a business relationship? Or the interactivity?

The IMP's approach offers a suitable response to the growing challenges in the field of economic sciences stemming from the globalization and increasing complexity of business life. Just as the global commercial problems are often solved at the regional or local level, theoretical or methodological solutions to various difficulties are based on approaches valid for certain geographical areas. The complexity of problems emerging in day-to-day business life obviously requires the application of ideas from multiple scholarly disciplines. The next IMP conference in Budapest will continue the navigation.

See all of you in Budapest!

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