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## **Understanding market dynamics- potential contributions to market(ing) studies from actor-network theory**

### **Introduction**

Given that the market is a socially constructed institution for governance of economic activities, the market is an aspect of social order. How the social order is established, changed and stabilized is an important aspect of social ordering.

Marketing practice, i.e. the behaviour of actors involved in market exchange, influences social ordering. Thus, marketing practice influences the dynamics (social ordering) of markets.

Markets and marketing are also phenomena studied within academic disciplines (and in non-academic research). Theories, concepts, methods and empirical results concerning markets and marketing also interact with marketing practice.

Furthermore, markets and marketing practice also interact with actors not involved in market exchange or research such government policy makers and institutions since they contribute to shaping market(ing) norms.

How market(ing) practice, academic research and government policies/institutions, all three phenomena broadly defined, interact is a major concern if we want to understand market dynamics.

The purpose of this paper is to discuss how the major ideas in the Sociology of Science and Techniques (SST) approach, and more specifically the Actor-Network Theory (ANT, e.g Callon and Law, 1989) might be applied more generally to market studies, recognizing that there is a growing literature, and interest concerned with such efforts. (E.g. Callon, 1999; Couchoy, 1999; Helgesson, 1999; Kjellberg, 2001; Méadel, 1999; Méadel and Rabearisoa, 1998) including also submissions to the 2003 IMP Group-conference and papers presented at a workshop held at Skebo, Sweden June 14-16 on "Market(ing) practice in shaping markets". This paper was also presented at that workshop.

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Markets and marketing have been subject of academic inquiry within several academic disciplines and subdisciplines, especially in Economics, Sociology and within Business Administration in a Marketing. There exists not one single conceptualization only of the market and marketing phenomena, neither in practice nor in research. Even if we can recognize a sequential development of aspects of marketing practice and research (Cochoy, 1999), several approaches co-exist, sometimes in a complementary but often in a more or less controversial way. In this paper I will focus on four approaches that view markets and marketing in different ways and then make an effort to show that ANT/SST can contribute towards understanding market dynamics, but in different ways depending on how the market(ing) approach. The four are

- the neoclassical model of perfect competition
- the industrial organization approach
- the marketing mix/ marketing management approach
- the markets-as-networks approach

ANT does not contain any specific theory of the market and does not give actors in the market any predefined attributes. ANT provides a vocabulary for understanding social ordering when the world is perceived as emergent and materially heterogeneous. Of the four approaches the markets-as-networks approach share some important features with ANT since they are both relational, sociological approaches and both are to an important extent focused on dynamics. They share a common interest in technical development. However, ANT has been successfully applied to both the neo-classical view of the market (Callon, 1999), and to the marketing mix view (e.g. Meadel, 1999). The papers at this workshop also show that all four approaches are more or less explicitly represented in the presentations

The title expresses the study area to be markets and marketing. This indicates that marketing theory and practice influences market dynamics. Also, changes in marketing practice might indeed be the phenomenon to be understood. The title also expresses a close link between change and stability. Some change efforts may indeed aim at preserving stability in other respects, efforts to introduce change might be confronted by efforts to maintain stability, efforts to introduce change need to be combined with efforts to preserve stability once the change has been realized.

The disposition of the paper is as follows:

First I will first give a brief overview of four major market(ing) theory approaches regarding how they define the market concept, account for marketing activities, account for market dynamics. Second, I will characterize the essential attributes of the ANT approach. Then I will, for illustrative purposes, give three examples of how some societal and managerial issues related to changes in markets and marketing, came in focus in Sweden during the last 50 years, both for practice and research. These issues will then be used to discuss how different market(ing) approaches might explain market dynamics. Finally, I will suggest in what ways the ANT approach might contribute to understand market(ing) dynamics.

#### **4 major market(ing) theory approaches**

The market is a societal institution for coordination of economic activities through voluntary exchange between economic actors. However, there are some important dimensions according to which theoretical approaches to markets, marketing and dynamics of markets differ. An important aspect, when we are interested in marketing practice is how the theoretical/analytical approaches influence practice and vice versa. Especially for the purpose of this workshop the role of theories and methods in shaping markets is a focal issue which I will discuss later.

##### *Neo-classical model of perfect competition*

The neoclassical marginalist revolution made markets "empirically empty conceptualizations of the forums in which exchange costlessly took place" (Demsetz, 1982). This ideal market consists of a large number of sellers and buyers of homogeneous products engaging in anonymous exchange. There is no conceptual room for *marketing* by actors in the market. Sellers just have to sell at the market price. Should marketing activities be performed and be influential, competition is no longer perfect. The neo-classical approach does not include *dynamics*. To establish and stabilize a perfect market is a matter of institutional change by actors outside the market. Indeed, norms must be introduced and maintained that prohibit marketing activities and any seller or buyer concentration.

##### *Industrial organization*

Within the microeconomic framework, during the 30s, a new market form including elements of both competition and monopoly was introduced, monopolistic competition. From this

development two important market(ing) conceptual frameworks emerged, *industrial organization (IO)* and the *marketing mix* approach.

IO as an application of microeconomics, is known for its SCP-model, i.e. it is preoccupied by analyses of how market structure-market conduct and market performance are related to each other. The objective of IO is to explain how market structure, directly or indirectly via market conduct, influences the performance of the market according to societal performance criteria. IO is primarily intended to give guidance to government policies, especially "antitrust" policies. In the SCP-model, basic conditions external to the market (such as demand(!) and technology) and public policy (e.g. expressed in competition laws) may influence structure and conduct. How e.g. technology influence to what extent economies of scale can explain market structure is an important issue in IO and either technology itself is exogeneously developed or efforts are made to link e.g. R & D behaviour in a market (as market conduct in an industry) and innovativeness( as a performance variable) to market structure.

The market structure is defined as the sellers of substitutes (i.e. the *market structure is an industry structure*) and to what extent the sellers are partially or fully integrated with suppliers and/or users.

*Marketing* in IO is to some extent included in the market conduct variable, with an emphasis on to what extent marketing activities lead to, or are explained by concentrated market structures, including lessening of price competition due to oligopolistic behaviour (price cartels, price leadership). Also, market research as it concerns competitive structure and competitive behaviour, as a basis for marketing practice, has an industrial organization "flavour". (This is of course true also for the "Porterian" branch of corporate strategy. )

The introduction of integration variables (full and partial, vertical and horizontal) in market analyses is important since then not only are both sellers and buyers explicitly part of the market but market strategy and interorganizational relations are linked to marketing. Not surprisingly therefore, distribution channels research has to an important extent been based on industrial organization.

As concerns public policy, industrial organization thinking is a major theoretical base for market laws and regulations (competition laws and to some extent marketing laws). E.g. the definition of "relevant market" and "dominant position" are of major importance in application of competition laws.

*Dynamics* of markets is primarily exogeneously influenced (basic conditions, public policy) even if there is room for some the endogeneous processes related to feedback loops between structure and conduct, given an initiating exogeneous event. Also some

developments regarding analyses of oligopolistic behaviour introduces endogeneous processes in IO .

### *Marketing mix approach*

The development of theories of imperfect competition made it possible to introduce marketing in micro-economic models, especially with the introduction of psychologic dimensions in the economic analysis of demand.

At this stage in my discussion I need to address how the concept "marketing" is dealt with in the marketing literature. There exists many "schools of thought" in marketing (E.g. Sheth et.al. identify nine.) An overriding focus is however, regardless of "school of thought", on the concept of "exchange". Philip Kotler defines marketing as a "social and managerial process by which individuals and groups acquire what they need and want through creating and *exchanging* products and values with others."(Kotler, 1987:3, my italics).

Given the focus on exchange, however, different paradigmatic orientations describe exchange in different ways. A major distinction is between interactive and non-interactive approaches and between single transaction and multiple transaction approaches to marketing. The "marketing mix" model is non-interactive in the sense that the sellers act and sets of buyers react. In an interactive approach both parties are active and not anonymous for each other. I will discuss the interactive view of exchange in the section on markets-as-networks.

In the marketing mix approach the seller has at its disposal a set of activities ("the 4 Ps") that are aimed at stimulating a buyer to respond favorably to the seller's offer. This psychological "Stimulus-Organism-Response" model can be extended in time to consider multiple transactions. However the marketing mix model basically is an approach to describe how a seller's actions influences aggregated buyer behavior in one time period. The marketing mix model stresses the role of marketing as a means of competition. These attributes follow from its theoretical base in monopolistic competition.

However, a rather peculiar aspect of how the marketing mix views the market is that only the demand side is focused. The market is "the set of buyers and potential buyers that share a specific need or want" (Kotler, 1987). That sellers' in the dominating academic marketing vocabulary are defined as external to the market and that the market is defined in terms of substitution is interesting and somewhat puzzling.

Marketing is the creative act by the initiating seller to influence the buyer. The definition approved by the American Marketing Association in 1985 makes marketing conceptually equivalent to marketing management: "Marketing (management) is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives" Kotler(1987:11).

Imperfect competition models, and their derivative the marketing mix model, are basically static but *dynamics* can be constructed using variables from this market model (e.g. Markov chain models explaining changes in market structure or diffusion of innovation models based on consumer behaviour (Rasmussen,1955)).

### *Markets-as-networks approach*

According to the markets as networks approach, not only is exchange interactive but individual market transactions take place within dynamic exchange relationships between parties who are not anonymous. The connectivity created between exchange relationships defines a network of connected exchange relationships, implying also that markets are viewed as networks (Mattsson, 1997;Ford, 2002). This approach is mainly applied to business-to-business (or industrial) markets and has emerged, mostly through case studies of industrial markets during the last 25 years within the academic field of Business Administration and more specifically its subdiscipline Marketing. Thus, the market concept and marketing activities have all the time been in focus. The network view has been contrasted to the three other views referred to above. Thus the *market* is considered as networks of multidimensional, dynamic exchange relationships between economic actors, who control resources and carry out activities. In these exchange relationships social relations are developed, knowledge is exchanged and developed, technical changes and adjustments, sometimes of an innovative nature, take place, logistical activities are coordinated.<sup>2</sup>

The market is an evolving, socially constructed institution characterized by *both cooperation and competition* and including both interdependencies due to substitution and

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<sup>2</sup> Even if much of the marketing literature has a "marketing mix" focus, exchange *relationships* is an important phenomenon in several schools of thought in marketing such as the Institutional, Functional, Organizational Dynamics, Systems and Social Exchange schools. (Sheth et.al.1988).

interdependencies due to complementarities. Furthermore, a market is embedded in an institutional setting, comprising society's norms and culture.

While the dyadic exchange relationship model stresses the role of *marketing* (including purchasing) as a means of cooperation between an individual seller and an individual buyer, the introduction of connected exchange relationships also gives marketing a competitive role.

Marketing is thus concerned with establishing, maintaining, developing and breaking exchange relationships to other actors such as customers, suppliers, even competitors. Thus marketing can be regarded as an investment activity. Marketing is an important aspect of the firm's strategic activities and thus clearly influencing *market dynamics*. Even if the market processes to an important extent are endogeneously driven through voluntaristic behaviour by market actors in the market they are also to some extent exogeneously driven, by actors or norms in society that we as analysts chose to consider as outside of the market, e.g. government agencies and cultural characteristics. Change and stability in exchange relationships and in the interdependencies between exchange relationships are aspects of market dynamics. It follows that also entry and exit of actors from the market and changes in connections between actors that is due to mergers, acquisitions and strategic alliances are aspects of market dynamics.

Even if markets are open, delimitations are necessary to make actions and analyses at all possible. Any boundary-setting depends on how analysts or actors perceive relevant interdependencies. Interdependencies and thus market boundaries are changing over time. Such processes are a major aspect of market dynamics (e.g. in terms of "globalisation" or "diversification").

The market as networks approach is linked to *neo-institutional approaches in economic sociology* (Hodgson, 1994) and among those particularly the New Economic Sociology (Swedberg, 1997). In the New Economic Sociology, the social network embeddedness of economic phenomena is in focus (Granovetter, 1985). Social network thinking dominates the new economic sociology, both as analytical tools and, to a larger extent, as a form of governance, mostly embedded in governance forms called markets, hierarchies, business groups, alliances, industrial districts etc. Network aspects of importance are:

embeddedness, reciprocity and connectivity; opportunity structures and constraints; networks linked to broader social contexts.<sup>3</sup>

In other strands of neo institutional approaches in economic sociology core concepts are path-dependency, cumulative causation and lock-in. The economy is seen as an evolving open system, subject to processes of cumulative causation. Human behaviour is characterized by routines but also by novelty and creativity. Technology evolves in a socio-economic context, it is not fixed and not externally determined. There is a pervasive concern with the role and significance of power and conflict between individuals and between institutions.

#### **Attributes of the ANT approach<sup>4</sup>**

Society is seen as constituted through a recursive process of interdefinition. Actors are not pre-determined but effects of the social process. Thus society is *performed* rather than given. ANT is much focused on *practice* and how *theory* influences practice.

All entities (including humans and artefacts) are involved in networks of associations that change due to attachments and detachments. Thus, *embeddedness is generalised*, including not only social systems but also artefacts and technology.

Action should thus be seen as *materially hybrid*. The characteristics of entities are relational. Different parts of actor-networks become compatible with each other through a process of *translation*. Translation operates on an entity by another entity, the former defining specific relational attributes of the latter. A series of translation processes may or may not be in conflict with each other. Some such processes, perhaps after negotiation of *controversies* imply alignment and convergence.

*Frame* is an actant's definition of the sociotechnical situation. Organising, conceptualised as "framing", is an iterative process aimed to achieve a certain order. To succeed in framing the actant must enrol and control others, anchor the situation in the surrounding world, reduce the interpretive flexibility, create new entities by inscription and mobilisation, increase motivation and use or develop a metrology. A frame is always incomplete which leads to *overflowing*. Such overflowing may lead to frame brakes and frame disputes and needs to be reduced.

Callon (1999) argues that ANT is well equipped to explain the existence and workings of economic *markets* just because of the indeterminacy of actors. Callon refers to the

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<sup>3</sup> Also the classical sociologists (Weber, Durkheim, Simmel) took a considerable interest in markets and the norms facilitating exchange. Durkheim observed that individuals "became solidly tied to one another and the links between them function not only in the brief moments when they engage in an exchange of services but extend considerably beyond" (Durkheim, 1983, 21)

<sup>4</sup> This section builds on Callon, 1992 and Kjellberg, 2001.



neoclassical market view in which the agents enter and leave the exchange as strangers. Any particular market is seen as the consequence of operations of disentanglement, framing, internalization and externalization. ANT, Callon suggests, makes it possible to explain these operations and the emergence of *calculating agencies*. Callon argues that it is necessary to introduce also the material elements in the social networks.

Callon refers to Garcia (1986), that analyses the creation of a local market for strawberries, as involving a framing process that allowed for calculation and for construction of calculative agents. Market transactions are not viewed as instances within any exchange relationships. Construction of markets must instead have the objective to alienate and disentagle. Social and technical embeddedness has to be reduced. This reasoning follows from the neo-classical market model.

Callon and Latour (1997) stresses the important role of economic science in developing economic theory and norms for calculation but also the anthropologist's efforts, through thick descriptions to make the invisible in human interaction visible. Social science should study both. Dynamics in a market economy is influenced both by efforts to draw boundaries and to extend boundaries. It is not possible to fully disentagle the entities involved in a market transaction from the outside world. The market in the real world is a hybrid between the theoretical notions of the market and other forms of governance.

In the following I will sketch three societal and managerial issues and relate them to the four market(ing) views and the ANT attributes. The three issues, about which I have written in some earlier research publications, are of course just a few that came to my mind when preparing this paper. Another, quite formidable case is the transition process from a centrally planned, socialist economy to a market economy in the areas former belonging to the Soviet Union. In the market economies we are, on a smaller scale, witnessing "marketisation" of several public service sectors. But also individual efforts to change and stabilize market relations are examples of social ordering, e.g. an individual selling firm's effort to become the major supplier to a customer, to introduce a key account manger organization for its international sales etc.etc.

### **Some societal and managerial issues related to dynamics of markets: Swedish experiences**

#### *1. Rationalisation of Swedish distribution of consumer goods after WWII*

It was argued, in government investigations, in business communities and in public debate that distribution was ineffective and needed to be rationalized, both in terms of structure and processes (Distributionsekonomiska problem, 1955) . Solutions proposed were e.g.

- a. Make the transactions between wholesalers and retailers more effective. One way this could be done, it was argued, was to differentiate the prices to reflect differences in the seller's costs to serve retailers of different sizes, with different buying habits etc. This was called "pris efter prestation". Another way was to partially integrate retail and wholesale activities. Integration and price differentiation could also be combined (Varudistributionsutredningen, 1955).
- b. New retail formats needed to be introduced. Self-service, suburban shopping centers, department stores and innovative and low cost/low price store were needed. It was argued that barriers to such a development were the existing structure, high investment needs, efforts by established forms to hinder the most innovative, low cost retail formats (Varudistributionsutredningen, 1955)
- c. To stimulate price competition the resale maintenance system needed to be abolished and new forms of low price retailing must be protected against discrimination by the traditional stores or by traditional wholesalers . New competition laws were introduced and e.g. rulings concerning early court cases of price discrimination and of refusal to supply were instrumental in setting new market behaviour norms (Riktprisutredningen, 1953)

## *2. Increasing role for joint marketing programs between retailers and manufacturers*

The development under 1. led to a shift in the power structure with increasing relative power of the retailer/wholesaler voluntary chains vis a vis manufacturers. A system evolved in the late 50s according to which a major part of the manufacturers' advertising and promotion activities became integrated with the chains' weekly advertising , store promotion and campaign pricing. This so called "SA/VA" system, in its basic form became a stabilized, and controversial, feature of consumer goods market(ing) during more than two decades. It served to transfer funds from manufacturers to retailers who used this to finance new store development, to strengthen integration within the voluntary chains (called "blocs"). It also influenced the manufacturing and logistical processes in terms of planning and seasonal variations. During this period the brand manufacturers' association (DLF) and most manufacturers expressed a critical, sometime conflict ridden attitude to the system. Criticism was also expressed by some government agencies. (Lindh, 1976; Julander, 1984)

## *3. Systems selling in international industrial markets*

Industrial marketing became a subject of much interest in Swedish practice, in academic research and in government policy during the early 70s. The overriding issue was how

Swedish industry should be able to be competitive on current and future international markets when internal R & D, raw material based advantages and general product quality seemed to lose as means to differentiate between sellers in increasingly internationalised markets.

The role of marketing for competitiveness was in focus, especially the links between technical change and interaction with customers and suppliers (Hammarkvist et.al. 1982).

A marketing practice of principal interest in those years was the "systems selling" concept adopted by many major Swedish industrial firms in the 70s and to some extent sponsored by government initiatives. Instead of selling individual components, the seller offered a whole system of hardware and software components sometimes including financing and management of the installed system. Systems selling required changes in the exchange relationships to suppliers and to customers. Since such systems were often sold to state owned buyers (eg infrastructural systems), political aspects became important to consider. Systems selling was sometimes also included under the label "functional selling", "transfer of technology" and "industrial cooperation" (Mattsson, 1975)

*How do the different market(ing) concepts relate to the above changes*

Rationalisation of Swedish distribution of consumer goods after WWII can be analysed within the *IO* framework since the different components "partial integration" (market structure), and "pricing principles"(market conduct) are related to ideas about societal effectiveness and innovativeness (market performance). The dynamic influence of basic conditions (urbanisation, economic growth, technical development etc.) and public policy can also be analysed. The *neoclassical* model provides no explanatory value since higher market performance is supposed to be reached by increased rather than decreased integration.<sup>5</sup> The *marketing mix* model with its emphasis on the buyer might be used to analyse the role of the demand side's reaction to changes in price differentiation and to the role of other marketing mix variables than price when resale price maintenance is banned by law. Also consumer reaction to new retailing methods such as self-service or home delivery can be

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<sup>5</sup> It is interesting to note that in a recent government investigation concerning competition and effectiveness in food distribution, it was argued that integration in the food distribution sector should be drastically reduced and a move towards the neoclassical model encouraged through government intervention. The proposals were not accepted but a recurrent issue in Swedish debate concerning market performance in food distribution is the dominance of a few retail "blocs"

studied within this framework. The *markets as networks* approach is able to address more detailed aspects of the partial integration as a dynamic process involving interaction between market structure and market processes than IO is able to. Furthermore the network approach will be able to focus more on the role of technological adjustments.

Increasing role for joint marketing programs between retailers and manufacturers can be analysed, using *IO* as a change in market conduct caused by a change in market structure with a possibility also to evaluate the effects on market performance as the critical views on this practice suggests. Relating to an IO analysis of the partial integration within the "blocs" referred to under 1a some understanding of the causes of the development and sustainment of the joint marketing programs might be had.

The *marketing mix* approach may be used to partly explain why the retailers, wholesalers and manufacturers have different attitudes to the practice, due to the different effects on the consumers from each party's point of view, but has difficulties to understand how it can be sustained despite the conflicts.

The *markets as networks* approach can be used to explain the practice with reference to strategic actions to influence exchange relationships in the network and the activity and resource structures. E.g. the joint programs might be part of the wholesaler's efforts to increase the integration in the "bloc" also regarding other aspects than promotion and pricing (Mattsson, 1972)

Systems selling in international industrial markets implies a reorganization of the market structure in several ways. First, the market definition, as expressed by *IO* and the *marketing mix* approaches must be changed from a component definition to a systems definition. The several types of components making up a system most often belong to different industries and different markets if a measures of substitution rather than complementarity are used. Second, sellers of components under conditions of systems selling are related to each other in terms of competition and cooperation and relation to the system buyer in other ways compared to the situation when the buyer constructed the system of individually bought components. The IO approach includes, as basic conditions and public policy variables possibilities to explain why systems selling emerges.

It is possible using the marketing mix approach to compare how the attributes of the seller's marketing mix attributes differ between a component selling and a systems selling situation (Mattsson, 1975). However, this approach can not explain the dynamics of emergence and

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sustainment of systems selling on industrial markets. The *markets as networks* approach is more apt to be used for understanding the process because the market concept includes both substitution and complementarity between sellers, because it considers the product as a variable, considers changes in exchange relationships and resource/activity structures and because marketing is given a wider definition (including more explicitly corporate strategy and organizational dimensions) than in marketing mix.

### **The potential use of ANT approach for understanding dynamics of markets**

Where do these arguments lead us? First an important observation. ANT is not a market(ing) theory. It is a methodology that might be applied to studies of market dynamics in the specific sense of how society (in our case markets and market behaviour) is ordered. Even if ANT, is a network approach, it should be applicable for studies also adhering to other market views than those emphasising markets-as-networks. Callon's analysis of the construction of the strawberry market in Sologne is a good example. The creation of the market in the neoclassical sense required efforts to create structures and processes including technology that made anonymous transactional exchange possible.

Let us return to major characteristics of ANT and discuss them with reference to the three cases and how they might relate to different market(ing) theories.

Society is performed rather than given. The ANT study by Hans Kjellberg (Kjellberg, 2001) about rationalisation of wholesale-retail interaction according to case 1 above exemplifies how the methodology can be applied. The efforts to first change and then stabilize the partially integrated system for distribution to consumers of food involved a large number of actors (including artefacts and other non-humans), only outside of the directly involved organizations, such as academics, research institutes, politicians, government agencies, media, etc.

The new pricing norms suggested ("pris efter prestation") and the old pricing norm prohibited by law (resale price maintenance) both were developed within political, government sponsored processes, were for their implementation and sustainment dependent on new calculative norms in the firms and to some extent "legal protection". Several legal cases during the period show that controversies and overflowing existed. Controversies regarding resale price maintenance were resolved by reduction of overflows, due to introduction of a new pricing concept, "riktpriiser" (guiding prices) which gave the

manufacturer some influence on the price and discount retailing a comparative price level. The frame was thus changed.

If we focus on the second case, the joint marketing programs, again an ANT study would aim at understanding how this became a major type of marketing practice. It was certainly controversial but the wholesalers' power made their framing and translation successful. The manufacturers tried, through their trade organization to "improve" their arguments through a number of market research reports. They also in the early period pointed out that sometimes the joint programs were not adequately followed-up by individual retailers. Thus overflowing existed and efforts by the wholesalers to reduce them involved more "supervision". The joint marketing programs were performed by changes in the negotiation, planning, manufacturing and logistical processes, involved changes in the use of sales space in the stores and advertising space in media etc. The performance included an entanglement between wholesalers and .

To understand the systems selling development as a marketing practice for Swedish industry on international markets, the interactive performance of selling and buying actors, the performance of the product, the market and the marketing (what is the product, what is the market, what is marketing of systems as compared to marketing of components) required e.g. enrolment of government agencies and financial agencies, mobilisation of local suppliers and local intermediaries/agents, development of methods to calculate and price, development of new concepts or clarification of old concepts such as "turnkey", "turnkey-plus", "offset", "buy back", "management contract". Systems selling was performed as an entanglement between the systems seller and the systems buyer that could go very far, e.g. in management contract and buy back arrangements. Development of systems selling could thus be described as a framing process to achieve social order.

As stated above, acknowledging that there are several theoretical market(ing) views, we shall not according to ANT give priority to any of them at the outset of a study of market dynamics (unless our purpose is to study social ordering to achieve a specific type of market conditions, cf. Callon, 1999). However, since ANT stresses the dynamic relation between practice and science, it follows that the performative role of science is made explicit. "L'économie-chose (economy) est le résultat performatif de l'économie-discipline (economics)" (Callon and Latour (1997, p. 49 )

Helgesson (1999) specifically relates his study to the microeconomic analysis of a monopoly. Kjellberg (2001) is less explicit: its actors seem to refer mostly industrial organisation and its "distribution economics" branch, but they could also be interpreted in terms of markets-as-networks. Cochoy (1999) treats the development and role of several market(ing) theories and marketing practices in the US and with a marketing mix emphasis. Meadel (1999) treats emergence of quantitative methods related to marketing mix.

### **Some preliminary conclusions**

The arguments in this paper leads me to the following four, somewhat interrelated, ways in which ANT can contribute to understanding dynamics of market(ing). And we should not forget contributions in the "other direction".

First, we can take a specific market(ing) theoretical approach as given. The inquiry is how that specific view of social order can be realized or why it fails to do so. Callon(1999) gives an example of that. Helgesson( 1999) has some elements of it. Also some studies of the transition economies, that adopt the neoclassical view of the market should be put under this heading. (I do not know if there are any such ANT inspired studies).

Less clear are studies of "marketization" of earlier public monopolies (e.g. Mattsson and Helgesson, 2003) and also studies of transition economies (e.g. Johanson, 2002) because they do not explicitly depart from a pure micro-economic view. Johanson (2002) views markets-as-networks. But still, it is an "institutional change" process that shall be explained.

Second, change phenomena derived from practices related to a specific market(ing) view can be the focus of inquiry. Typical examples related to the marketing mix approach are the development and use of methods to influence consumers, measure impact of marketing activities, and organise promotion (Méadel and Rabeharisoa ,1998; Meadel, 1999; Hennion and Méadel,1997). In a markets-as-networks perspective the above mentioned development of systems selling could be studied with an ANT approach.

Third, a certain dynamic phenomenon related to marketing practice could be studied using an ANT approach but without any explicitly stated market(ing) view. Kjellberg (2001) is such an example. A potential study of the emergence and sustainment of the joint marketing programmes is another. However, given the relational aspects of both ANT and the markets as networks approach it is probable that the market view emerging in the study is "network-like".

Fourth, and this comes close to a core issue in ANT, we could be interested in the emergence and stabilization of market(ing) theories and their implementation in practice. That is, ANT studies of scientific processes and how they generally relate to practice (Couchoy, 1999) are very interesting possibilities that would enrich the "marketing discipline". Comparative studies concerning different academic, social and business contexts are of interest because of e.g. the differences between the US and Europe.

ANT contributes to dynamic analysis from the "outside" and as a complement to the dynamics provided "inside" the market(ing) theories. As my discussion of the four market(ing) approaches suggested, market dynamics and the role of marketing is handled in quite different ways. Therefore also the ANT contribution becomes quite different depending on how the market and the marketing practices are viewed.

ANT's by far "closest neighbor" is the markets-as-networks view. Markets-as-networks also is specific about the need to consider both social and technical interdependencies but is not at all as explicit in how human and non-human actors are methodologically related and not clear about the performative aspects. As to the methodology for studying dynamics ANT is more "precise" than markets-as-networks. Markets-as-networks studies focusing on technological innovation (e.g. Håkansson, 1989; Lundgren, 1995) demonstrate an explicit link between science and practice.

Finally, what can ANT learn from market(ing) studies? When ANT is applied to a marketing phenomenon it is evident that prior marketing studies provides relevant background material. Judging from my, admittedly incomplete, knowledge ANT studies of marketing (outside of Sweden) have mostly referred to marketing mix, to a small extent to IO and perfect competition but hardly at all to markets-as-networks. I believe there is some untapped potential for ANT in the IMP-related interaction and network studies. There exists a large body of empirical research concerning market dynamics driven by interdependencies in the network that are identified, described and explained. The involvement of technical as well as social/organizational dimensions, the concern about boundary setting and dynamics of boundaries, in many studies also the involvement of political actors in the network processes are all characteristics of the markets as networks studies. In their paper "Monsters Inc." (Helgesson and Kjellberg, 2002) the authors refer to concerns raised in the ANT literature that extending the approach to societal phenomena far away from science and techniques will create "monstrous hybrids". Their dissertations exemplify that such concerns about extension might be fruitfully addressed.



## References (somewhat incomplete)

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