

Association for Information Systems AIS Electronic Library (AISeL)

ECIS 2008 Proceedings

European Conference on Information Systems
(ECIS)

2008

The Unaspected Destiny of a Collaborative E-Marketplace: The Agriok Case

Lapo Mola

Universita degli Sudi di Verona, lapo.mola@univr.it

Cecilia Rossignoli

Universita degli Sudi di Verona, cecilia.rossignoli@univr.it

Andrea Carugati

Arhus School of Business, andreac@asb.dk

Follow this and additional works at: <http://aisel.aisnet.org/ecis2008>

Recommended Citation

Mola, Lapo; Rossignoli, Cecilia; and Carugati, Andrea, "The Unaspected Destiny of a Collaborative E-Marketplace: The Agriok Case" (2008). *ECIS 2008 Proceedings*. 56.

<http://aisel.aisnet.org/ecis2008/56>

This material is brought to you by the European Conference on Information Systems (ECIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ECIS 2008 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

THE UNASPECTED DESTINY OF A COLLABORATIVE E-MARKETPLACE: THE AGRIOK CASE

Lapo Mola, Università di Verona, Verona, Italy, lapo.mola@univr.it

Cecilia Rossignoli, Università di Verona, Verona, Italy, cecilia.rossignoli@univr.it

Andrea Carugati, Århus School of Business, Århus, Denmark, andreas@asb.dk

Abstract

The last few years have witnessed the emergence of electronic marketplaces as players that leverage new technologies to facilitate B2B internet-mediated collaborative business. Nowadays these players are enlarging their services, from simple intermediation to include new inter-organizational relationships. The interest of this paper is to investigate the shift in the role and evolution of services proposed by e-marketplaces in response to the market participants' demands. We carried out a longitudinal qualitative field study of an e-marketplace providing the outsourcing of the procurement process. Through the study of practices evolving over time we show that, as marketplaces offer increasingly complex business processes, the market participants begin to privilege the well connected small numbers to the convenience of the openness to the entire market. The participants see the marketplace as an exclusive club whose belonging provides a strategic advantage. The technology brought forth by the marketplace participates in shaping the strategic demands of the participants which in turn request the marketplace to redesign its own strategy. Profiting from this unintended consequence, the e-marketplace assumes the paradoxical role of strategic mediator: an agent who upholds and heightens the fences of the transactions instead of levelling them. The results have implication in shaping how we see the role of technology as strategic or commoditized.

Keywords: technology strategy, e-marketplace, collaborative business process, electronic intermediation.

1 INTRODUCTION

In the recent past, from 2000, academic as well as practitioner literature has focused on the role of the internet as the main driver to facilitate collaborative business processes. Across industries and product types the services using internet as basic infrastructure promised to bring down any type of boundary to collaboration (Kalakota and Konsynski, 2000; Dikey and Ives, 2000; Tan, Shaw and Fulkerson, 2000). New players – now known as electronic marketplaces – entered the scene as the mediators of virtually any type of transaction. The main aim of e-marketplaces was to leverage the internet infrastructure to put in contact a large number of suppliers and buyers and become the channel of choice to enable collaborative business processes for information and money exchanges (Weill and Vitale, 2001). Electronic marketplaces involving technologies, participants, relationships, and services, have become the most widespread form of mediation among business partners and participate therefore in the re-design of business process and generate new collaborative dynamics among participants. The dominating business model has been to decrease buyers' and suppliers' transaction costs by facilitating their interaction while charging a fee for the service (Weill and Vitale, 2001).

The same period has been dominated by a widespread belief in technological determinism (Markus and Robey 1988, Ciborra 1993): internet services would come to substitute old, inefficient, and static relations with effective and nimble many-to-many collaboration forms (Conway 2000, El Sawy 2003).

According to this literature, most collaborative problems would go away as cumbersome EDI technologies would be substituted by agile XML-based services. In this spirit and with the existing business and revenue models it is comprehensible that e-marketplaces have been betting on technological improvement as the main driver of their service offering. The more services they would offer, the more the transaction cost for the participants would decrease, the more members would join in, the more transactions would be carried out, the larger the revenues. This is for example the model carried out by Amazon Co. The evolution would follow this course and marketplaces would become strategy-neutral infrastructural technology brokers (Carr 2003). This view would not however take into account the co-evolution of the technology available, the services proposed, and their use or rejection from the side of the users.

Nowadays, with few years of experience, we can look back and reflect on this technology driven wave of change and see what has been accomplished so far. While much has been written on marketplace technologies and functionalities and on their relations to the member companies (e.g. El Sawy, 2003; Kalakota and Konsynski, 2000; Tan, Shaw, and Fulkerson, 2000), little has been written on the role that member organizations have in shaping the behaviour of the marketplaces and how those in turn influence the members' collaborative processes. In particular the inter-organizational behaviour centred on an e-marketplace has rarely been studied longitudinally as the services provided by the marketplaces evolve over time. As marketplaces proliferate open questions remain: Is technological innovation still the main driver of marketplace activities? Are marketplaces fulfilling their original role of mediators? What services are companies really seeking when subscribing to a marketplace?

In order to answer these questions we need to move away from the technological imperative and embrace a more open interpretive perspective. This research takes the point of view of the marketplace to understand the way in which electronic intermediaries influence - through their evolving services and supporting technologies - the processes of the other actors in the value chain. Specifically this paper investigates the shift in the role and evolution of marketplaces in response to the participants' business demands as the services they propose evolve.

An interpretive case study of an e-marketplace in the food industry, analyzed from the point of view of the marketplace, suggests results that are in interesting opposition to technological deterministic view presented above. The marketplace participants, following an adaptive path over time, begin to privilege a new form of mediate collaboration, the closed electronic market, which is preferred to the access to the entire market - which is normally the chief reason to become member of a marketplace. Our case study shows that when more complex services are proposed, the participants begin to prefer an exclusive access to the technology and to the network. The technology provided by the marketplace is seen as a source of strategic advantage and therefore its accessibility has to be protected. While profiting from this unintended consequence the e-marketplace changes its role from being an agent who levels the barriers to access - the market mediator - to becoming an unexpected instrument of gate keeping fulfilling a new uprising role that we name strategic mediator.

This paper is structured in the following way: first a historical analysis on electronic intermediation is presented. Then we present a theoretical framework to study the structuring role of marketplaces, technologies, and participants. Thirdly, we present the research method and research site. Finally, the analysis and the discussion of the case are presented.

2 A HISTORICAL PERSPECTIVE ON E-MARKETPLACES

As presented in the previous section we are interested in understanding the role played by marketplaces in B2B transactions as the level of service offered changes. With this purpose it is interesting to catalogue B2B e-marketplaces according to the level of service they have been proposing over time. The first marketplaces were open electronic platforms enabling transactions and interactions between several companies (Holzmuller and Schlichter, 2002). We may call these services *first generation* to differentiate from the lack of intermediation that we call *generation zero*. The

marketplace proposing first generation services may be generally called *transaction mediators*- The primary purpose of first-generation e-marketplaces was the creation of a more competitive market and friction-free commerce (Bakos, 1997). They were therefore characterized by large numbers of participants and basic services (manly on-line catalogues and financial transactions).

With time, for the purpose of creating a more sustainable business model, some e-marketplaces re-oriented towards what we may call *second generation*, which includes the management of the entire transaction, from the on-line definition and development of orders to logistics management (Philipps, Meeker, 2000). The technological drive towards increasing the volume of transaction pushed the marketplaces to develop new processes and tools. However, the development of these portals was crippled by the pricy nature of these services, so that in some instances the number of participants was too low to guarantee the survival of the platform. The gist of the problem is that both the business model and the service model required a high number of members to reach critical mass (MacDuffie, Helper, 2003) and this was difficult to obtain because of the pricey services.

Christiaanse and Markus (2003) call *collaboration mediators* those second generation marketplaces that provide advanced services of process integration. They “*act more as purchasing process facilitators, enabling interorganizational systems integration and providing specialized supply chain collaboration capabilities*” (ibid p. 1). The ideal goal of second generation marketplaces seems to be the digital integration of all phases involved in the value chain (procurement, production, distribution and sale), irrespective of the fact that these may be controlled by a leading company or by independent entities specialized in various activities. Figure 1 shows the evolution of the stages of marketplaces business and service models.

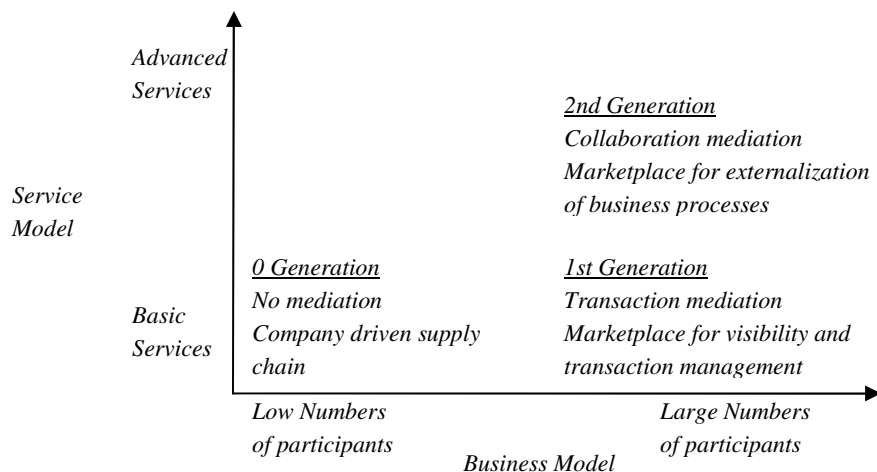


Figure 1. Evolution of the stages of marketplaces business and service models.

While Christiaanse and Markus (2003) propose multiple frameworks to make sense of the role of second generation marketplaces, they do not address the dynamic process of conversion from mediator marketplace to collaboration marketplace. This process is lived both by the marketplace and by its member-companies as a continuously emergent process rather than as a radical shift.

Before marketplaces appeared on the business landscape companies were managing their cross organizational collaborative business processes either as loosely coupled configurations where partners were changed frequently (orchestration) or as tightly coupled long term configurations (collaborative integration) (El Sawy 2003). Under the first category we find non-strategic partners and under the second the strategic ones. Marketplaces of the first and second generations tried to change both orchestration and collaborative integration bringing these collaborative processes closer together. Industry specific vertical marketplaces targeted the strategic partnerships enlarging the portfolio of companies that could act as a strategic partner for a given company. AgriOK, the marketplace of the case study presented below is in this category. Generic – horizontal – marketplaces targeted flimsy

relationships trying to make them more tightly coupled. Office equipment or travel marketplaces are in this category. As more advanced technology became available we noticed that vertical marketplaces were the first to move to the second generation of services while still today there are horizontal marketplaces proposing first generation services (e.g. Archiexpo, www.archiexpo.com, a marketplace for office equipment).

In terms of changes in the internal processes, participating to first generation marketplaces does not entail major changes while participation to second generation demands to its participants to redesign their business process, considering the e-marketplaces services as part of the available process portfolio.

As the need for adaptation to a marketplace increases it can be questioned whether the driver of the relationship will remain the marketplace, while the participants will expect a push strategy, or if the participants will rather adopt a pull strategy and in this case in which direction. The technological determinism evidenced in the introduction and confirmed by the evolution of roles and services for the marketplaces calls for a study that abandons the technological deterministic perspective and takes an organizational perspective to investigate the relation between the marketplace and its mediating technologies and the participants. As technology shifts from being the focus of the relationship to being the mediating element, we need a framework to make sense of the mediating capability. The following section will present such framework.

3 A GUIDING FRAMEWORK

Despite the existing knowledge regarding the nature, functions and rules that regulate markets, there is not yet a dominant theory to explain the change in role of electronic marketplaces. As companies' operations and strategic configurations adapt to include external providers like electronic marketplaces, they influence and develop the traditional organisation forms of hierarchy and market into new forms where collaborative business processes become fundamental. In this scenario it is useful to adopt a framework to study the evolution of marketplaces that includes the factors that influence collaborative business processes.

Malone et al (Malone, Yates, Benjamin, 1987) identified the three determining effects of ICT in terms of the ability of organisations to coordinate business transactions:

- *communication effect*: the possibility of transmitting information more quickly favors a reduction in transaction costs;
- *electronic integration effect*: ICT makes closer electronic connections between suppliers and buyers easier;
- *electronic mediation effect*: buyers and sellers can compare offers much more easily on the electronic market.

Wigand (Wigand, 1997) adds the network dimension to these three effects, a fourth effect called the *strategic electronic network effect*: ICT allows for the design and strategically planned formation of links between companies who cooperate to achieve strategic objectives, the final aim being to obtain competitive advantages (Wigand, 1997). This latter aspect is often underestimated but becomes fundamental to explain the strategic implications of network relations, not only those involving relations within the network itself, but also those outside the network. In fact taking part in a network also means forming a barrier to entry for those who are outside as a result of the "strategic electronic network effect" (Wigand, 1997).

The network seems to be the efficient solution to overcome the institutional and strategic restrictions of markets and hierarchies. The network, if studied as an alternative form of transaction management, is a form of governance where the four previously mentioned effects (communication, brokerage, integration and networking) play new roles and call for a redefinition of relations between the actors involved in the organisational network. The description of the case below is a good ground for

analyzing - on the base of these four effects - how and to what extent the e-marketplaces role and business model evolve over time.

4 RESEARCH SITE AND METHOD

4.1 Site

AgriOk is an e-marketplace in the agricultural and food sector specialized in dairy products. The e-marketplace was created in 2000, thanks to an agreement between Granarolo (holding 94% of AgriOk) and Granlatte. The business activities of AgriOk started in March 2001. As of today, AgriOk counts about 1500 participating enterprises and over 250 subscriber suppliers. The companies participating in the AgriOk's network are usually small/medium enterprises operating in the agricultural and food industry within the Italian territory and, in particular, in Central and North Italy. Some of the major suppliers are: Nutristar, Ecloclin for animal food and supplements, Geocentro for phytopharmaceutical products and FIS for livestock feeding.

The mission of the AgriOk is:

- To guarantee traceability and quality of the products in the supply chain
- Develop a technological environment which can provide consultancy services to participants supporting them in the procurement process



Figure 2 AgriOk Services: (1) Traceability, (2) Consulting, (3) Questions (free of charge)

At the beginning, the development of portal activities faced several problems, such as complex and cumbersome logistics, low profit margins, globalization of agriculture and food industry, strong competition and reluctance of companies to use highly automated procurement tools.

Nowadays the e-marketplace enables a strong integration of the supply chain, from suppliers of raw materials (milk and agricultural products) to food processing companies, working exclusively with ICT. According to the participants AgriOk is creating a real strategic network capable of competing at global level.

The services offered can be categorized into two macro areas. These are: standard services for the supply chain and extended services.

Standard services: the purpose of the first type of services is to give to participants support to their activities through an easy, effective and consistent connection within the supply chain. In the framework presented above these services would fit in a first generation marketplace.

Customized services: This second group of services consists in the ability to customize services according to the user accessing the marketplace. Depending on the identity of the users accessing it, the portal provides sector-specific, technical and marketing information and links to local businesses. In this category we also find the services to show useful products to correctly manage the entire supply chain, such as:

- Presentation of fact sheets and characteristics of useful products by sector: feed-stuff, raw materials, equipment and tools.
- Catalogue management and traceability of orders: web links to suppliers of farmers connected with the value chain for the transmission of orders. Connection with warehouse tracking system.
- Product traceability along the value chain. This is a detailed information gathering system for the entire processing cycle of products, from harvesting to manufacturing into finished products, with different levels of use and visibility, based upon the type of role: farmer, expert, agricultural hubs, etc.
- On-line catalogues and services outsourceable through AgriOK create an opportunity for sellers and suppliers to meet with each other, thus promoting relationships and sharing along the supply chain. When sellers are not satisfied with the conditions set out in a catalog, such as when handling large quantities of products, buyers have the opportunity to negotiate, using a Request for Proposal (RFP), the most advantageous conditions with the selected suppliers and to describe in detail their needs, even attaching documents and any special request.

All those services are entirely managed through the website making AgriOk a full-fledged 2nd generation marketplace (refer to figure 1). Moreover, AgriOk automatically forwards requests to suppliers companies and delivers the received offers to buyers. At the end of this process, buyers can select the most advantageous offer or reject all offers, if they so wish. Thanks to this type of service, costs and time of transmission of requests are minimal, since faxes, couriers and traditional mail services are no longer required.

4.2 Data collection and analysis

The method used for the analysis is a case study research method, which is useful in order to examine a phenomenon in its natural settings (Benbasat, 1984). The method of case study has furthermore been chosen considering that case study research can be an ideal vehicle for gaining a deeper understanding of implicit and explicit business processes, and of the roles of people and systems in organizations (Campbell, 1975; Dukes, 1965; Hamel et al., 1993; Lee, 1999; Stake, 2000).

Starting in May 2006 we conducted a 3 month field study of the AgriOK Marketplace using primarily qualitative data collection techniques (Agar 1980, Barley 1990, Van Maanen 1979).

We established our relationship with AgriOK after observing the content of their web portal and after having had contacts with some of the participants in the network.

As non-participant observers we spent two/three days per week, five hours a day in AgriOK headquarters, recording our observations.

Detailed observations are supplemented with 10 semi-structured interviews with AgriOK managers. Managers were asked questions on the functions of the marketplace, on the relations between participants, on the influence on the level of collaboration and coordination between members, and

about the evolution of the activities carried out by the marketplace for the members. In addition we analyzed the printed documentation and then intranet based documentation archives. We studied also the structure of the website and the procedures used for the development of the main services.

To understand the nature and evolution of the dynamics among participants, we analyzed the collected material using the four factors: communication, brokerage, integration and networking to guide our analysis. We have therefore examined the communication patterns and flows within the marketplace; the mediator role as perceived internally in AgriOK; the technical changes and process changes for their integration; and the entrance dynamics in the network.

5 CASE ANALYSIS

At the beginning of its activity the purpose of AgriOk was to expand its business, both vertically, along the entire supply chain, and horizontally, towards the fruit-and-vegetable, wine and meat sectors. The CEO of the company said that:

“In this way, it is possible to provide the companies of the sector with outsourceable support, thus creating a vertical integrated value chain and therefore allowing immediate product traceability and other benefits ...The main goal in our mind was to create the new Amazon.com of the diary industry”.

The initial business model was designed in a traditional way, where AgriOk would collect a percentage based fee on each transaction made throughout the e-marketplace.

One characteristic of this marketplace was that since the early stages of its life the transactions were very few compared to the access and the requests for information about the products and the characteristics of the vendors and sellers.

According to this trend the top management of the portal decided to change the business model, implementing a set of services more interesting for the market participants. As one of the top executives in AgriOk put it:

“We understood that our clients were not ready yet for the new economy. An Internet-based transaction platform was too far from their way of thinking. The agricultural industry in fact is not yet familiar with ICT. Farmers prefer face to face agreement instead of a virtual contract. Internet was considered good as communication media, so we started providing a portfolio of simple services to those who decided to join the portal”.

The new business model was set on the base of a fixed fee for subscription linked to the services desired. Nevertheless, in order to reach the critical mass, the management of AgriOK decided to offer some services for free. These services were a collection of advices given by a group of experts, news and events of the sector, and detailed information about fairs.

The services available to subscribers were also customized. A software was able to identify users accessing a given service and to adjust the response accordingly. Different types of services were set up to achieve different goals:

Marketing services: this type of services were targeted for those participants who were looking for tools to support their commercial activities. The portal offers a special area called “virtual shop window” where the participants can show and advertise their products and make a virtual visit of others firms of this area. Furthermore they can get in contact with other participants to exchange news concerning their business.

Legal services: this kind of services provides a continuous updating and interpretation of the requirements given by local, national and European authorities regarding quality and process management in the food industry.

Consultant and assistance services: the experts of AgriOK are available to offer their assistance to help participants to solve problems connected with adversities such as parasites, insects, and epidemics. Other types of consultancy regard good practice and management process in food industry

Traceability services: this is one of the most requested services by the participants to the e-marketplace. Thanks to the registration to the portal all the firms belonging to the value chain can recognize the changes made to the product in any transformation in the chain.

Screening, selection and ranking of suppliers: the portal establishes a list of requirements of a number of possible suppliers who can satisfy the needs of supplying of the participants. The participant can outsource the whole procurement process. AgriOK offers e-catalog and e-scouting services supporting the transactions and payment. Throughout the marketplace participants can decide which activity of the procurement process to outsource and which ones have to be maintained in house.

As the number of services and their complexity augmented the participants did not increase the transactions in the marketplace as it was expected but rather they began to change their behavior. The management of AgriOk began to face requests that were showing a new protectionist behavior emerging from the members respect to the non-members of the network. One executive reported this change:

“Once the participants started using those services more strategically for their business, they began asking guarantees about the reliability of the new potential entrants. We were supposed to be not only a virtual bridge between clients and suppliers or a service provider, but a real authority in charge of the good service of the network”.

The management decided to accept these requests establishing new rules that must be respected to enter and participate to the network. Admission barriers were set based on ethics, politics, and trust principles decided by the marketplace as new emerging authority.

Initially, AgriOk’s customers would only use the services connected with the marketplace and therefore would adopt the platform for the direct sale/purchase of goods, thus reducing intermediation costs and keeping transaction costs to the bare minimum. Today, AgriOK’s technological platform is not just used to reduce costs, but first and foremost to improve and enable sharing of information along the entire supply chain, thus creating a real strategic virtual group capable of competing at an international level both with emerging countries and large multinational corporations.

6 DISCUSSION

The AgriOk case shows how a marketplace responding to the requests of its members proposes increasingly advanced services and finally turns into a governing structure, an organizing platform, or a *bouncer* as the CEO of AgriOk characterized it.

From the point of view of the marketplace management this emergent result is nothing short of a paradoxical situation. Within the technological deterministic view presented in the theory section, the very existence of a market place is traditionally connected to its ability to mobilize a market where the highest number of players brings the highest revenues. Abandoning the techno-deterministic for an organizational deterministic view we notice that participants in the market not only require services related to transactions but they try to promote barriers to entry to regulate new entrants. The implementation of new services and the realization that those are of strategic value, leads the member companies to ask the marketplace to become an exclusive club with clear rights for entrance and acceptance. As the CEO said:

“... in a certain way we can consider ourselves as a bouncer at the door of a club”

In implementing rich business process outsourcing capabilities, the marketplace has in fact moved its service offering to support networks instead of open markets. The marketplace becomes an involuntary architect of strategic networks where companies are involved in an intricate latticework of collaborative ventures with other firms over extended periods of time. The disconnect with the past resides in the fact that while these network relations are normally kept by a firm-to-firm partnership (Powell 1990), with the new services they are mediated by a third party.

The marketplace assumes a new, maybe unwanted – surely serendipitous – role that we call *strategic mediator*. The paradox in this role is the incongruence between transaction and collaboration mediators (thriving on big numbers) and strategic mediator, thriving on low numbers of loyal members served by high quality services. In relation to the above discussion about generation of marketplaces we observe the emergence of a third generation of strategic mediation (see figure 3).

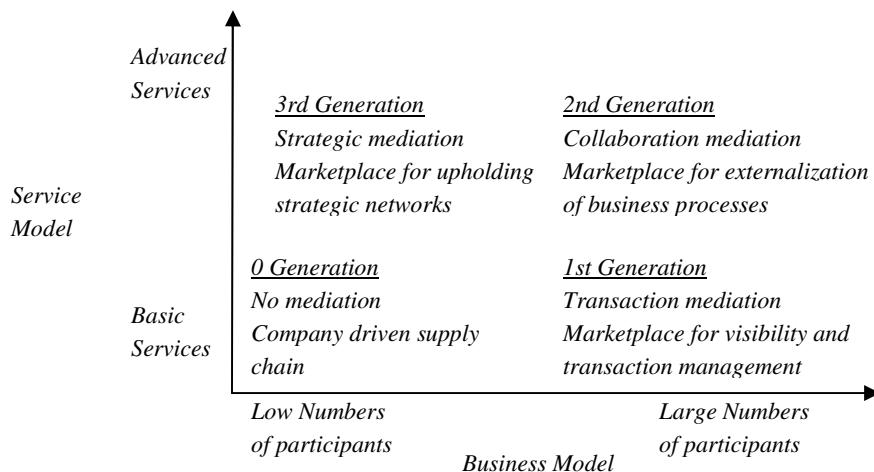


Figure 3. Evolution of marketplaces to strategic mediation: low numbers and advanced services

In the paradox lies the possibility to create new collaborative forms and new business models. From the point of view of the member companies, the very concept of outsourcing should be reconsidered, no longer being a one-to-one relationship between two entities wishing to carry out transactions that can no longer be conveniently governed through internal hierarchy. Outsourcing becomes a multilateral technology-mediated strategic relationship, where technology becomes the real counterpart of the outsourcing relationship. A good balance between organizational design and strategic use of ICT creates flexible boundaries in the company and at the same time optimizes transaction and production costs. The outcome is an improper market or closed market, whose participants are both kings and subjects having influence on the technological platform, which in turn becomes more and more an organizing platform for their own activities.

A network does not always cause reduction in the price of goods. On the contrary, new intermediaries like the strategic mediator emerge to fill structural holes (Powel and Grodal, 2005) and that have different objectives than price reduction. The strategic mediator does not produce an effect on prices but rather expands and expedites the purchase process reducing information asymmetries and directing the focus on the service and not on the price. In other words, it improves the quality of the service connected with the business process and offers a larger variety of choices to all participants.

Such effect is at odds with the effects of electronic commerce on the structure of intermediation described in the literature even if Bailey and Bakos (1997) suggest that "... find evidence of new emerging roles for electronic intermediaries, including aggregations, matching suppliers and customers, providing trust, and providing interorganizational market information".

In this context, members of the network try to close the boundaries of the market using the marketplace to build entry barriers and set conditions for the new entrance. For this reason it becomes absolutely necessary that the strategic mediator acts as an administrator delegated to represent the interests of the members of the network. If the marketplace takes up the role of strategic mediator then the mediating technologies implemented by the marketplace create an arbiter effect in the network. We call *arbiter effect* a fifth effect of technology intermediation that complements the four presented in the framework section. The arbiter effect differs from the strategic electronic network effect of Wigand (1996) because while the latter is a structural effect of the network, the former – the arbiter – is voluntary (figure 4). Strategic mediator and arbiter effect exist in symbiosis: the marketplace could not act as a strategic mediator without the technologies that confer it the arbiter power. Inversely, the technologies can only display arbiter effects if this is enacted by the owner of the connections in the network, namely the strategic mediator.

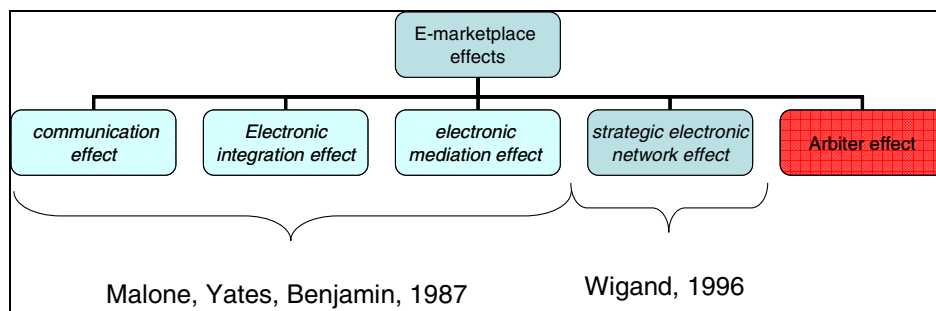


Figure 4: The e-marketplace effects complemented with the arbiter effect

The ideas of marketplace as a strategic mediator, the improper market, and their relation coming from a single case study need to be extended and generalized. The trend that many companies are following today in the management of their organizational processes consists in turning to a growing number of new, hybrid, mobile, hard-to-manage methods for managing various company functions. The extent to which this will happen through imperfect markets created and maintained by strategic mediators is the question that needs an answer and will become the theme of future research. In particular issue of transparency and novelty of the services, the roles involved and the linkages between the members (Fiel et al, 2006) will have to be considered.

7 CONCLUSIONS

In this paper we have investigated the development trends for the business players known as electronic marketplaces. The theoretical development of the paper led us to conclude that the development of services proposed by marketplaces has been mostly driven by the technological deterministic assumption that services and revenues are directly connected. This result led us to identify a matrix for mapping the stages of development of marketplaces based on the number of players and the level of services. Challenging this assumption we have proposed a case study that shows that the development of marketplace services, business model, role, and strategy is not determined only by technology development. As marketplaces have approached a certain level of sophistication the network begins to create pressures to change the role from collaboration to strategic mediator. In parallel to this shift the mediating technologies create the effect of arbiter if used in the proper way. These two factors work in symbiosis as one cannot exist without the other.

References

- Agar, M. (1980) *The Professional Stranger: An Informal Introduction to Ethnography*. Academic Press, New York.
- Bakos, J.Y. (1997) Reducing Buyer Search Costs: Implications for Electronic Marketplaces. *Management Science* (43:12), pp. 1676-1692.
- Bailey, J.P., Bakos, J.Y. (1997) An Exploratory Study of the emerging role of electronic intermediaries. *International Journal of Electronic Commerce*, Vol 1(3) pp 7-20.
- Barley, S. R. (1990) Images of imaging: Notes on doing longitudinal field work. *Organization Science* 1(1) pp. 220–247.
- Benbasat, I. (1984) An Analysis of Research Methodologies. W.F. McFarlan (ed.), *The Information Systems Research Challenge*, Harvard Business School Press, pp.47-85.
- Carr N.G., (2003), IT Doesn't Matter, *Harvard Business Review*. May 2003
- Campbell D.T., (1975) "Degrees of Freedom" and The Case Study. *Comparative Political Studies*, Vol 8, N 2, pp 178-193
- Ciborra, C. (1993) *Teams, markets, and systems : business innovation and information technology*. Cambridge University Press, Cambridge
- Christiaanse, E. and Markus, L. (2003) Participation in Collaboration Electronic Marketplaces, in *Hawaii International Conference on System Science*, (Hawaii, USA).
- Conway D.G., (2000), Supplier Affiliated Extended Supply chain Backbones, *Information Systems Frontiers*, Vol. 2, No. 1, pp 57-64
- Dikey M.H., Ives B., (2000), The Impact of Intranet Technology on Power in Franchisee/Franchisor Relationships, *Information systems Frontiers*, Vol. 2, No. 1, pp 99-114
- El Sawy O., (2003), Collaborative integration in e-business through private trading exchanges (PTXs), *Information systems and e-Business Management*, Vol. 1, pp. 119-137
- Fielt, E., Janssen, W., Faber, E. & Wagenaar, R. (2006) Towards a design theory for electronic intermediaries. in M. Tanniru, T-P. Liang, M.J. Shaw, D. Zeng, M. Chau & S-Y. Hwang (Eds.), *Proceedings of the 5th workshop on e-business (WeB 2006)*, Milwaukee, Wisconsin, U.S.A.
- Hamel, J. Dufour, S., Fortin, D., (1993) *Case study methods*. Sage, Thousand Oaks, Vol. 32
- Holzmuller, H , Schlichter, J. (2002) Delphi Study about the Future of B2B Marketplace in Germany, in *Electronic Commerce Research and Application* 1, pp. 2-19.
- Kalakota, R. , Konsynski, B. (2000) The Rise of Neo-Intermediation: The Transformation of the Brokerage Industry, *Information Systems Frontiers*, Vol 2 , N. 1 , pp 115-128
- Lee, T. W., (1999) *Using Qualitative Methods in Organizational Research*. Sage, Thousand Oaks
- MacDuffie, J.P., Helper, S. (2003) B2B and Mode or Exchange: Evolutionary and Transformative Effect, in *the Global Internet Economy*, MIT Press.
- Markus, M. L., & Robey, D. (1988). Information technology and organizational change: Casual structure in theory and research. *Management Science*, 34(5), 583-598
- Malone, T.W., Benjamin RI, Yates J., (1987) Electronic Markets and Electronic Hierarchies: Effects of Information Technology on Market Structure and Corporate Strategies. *Comm. ACM*, Vol. 30, Vol. 6, pp 484-497.
- Powell, W. W. (1990) *Research In Organizational Behaviour*, Vol. 12, pp 295-336.
- Powell W.W., Grodal S., (2005) Networks of Innovators. *The Oxford Handbook of Innovation*, pp. 56-85.
- Philipps, C. and Meeker, M. (2000) *The B2B Internet Report: Collaborative Commerce*. Morgan Stanley Dean Bitter Research.
- Stake, R. E. (2000) "Case Studies", in N. K. Denzin and Y.S. Lincoln (Eds). *Handbook of Qualitative Research*, Sage, Thousand Oaks, pp 435-454
- Tan, G. W., Shaw, M. J., Fulkerson, B. (2000). Web-based supply chain management. *Information Systems Frontiers*, 2(1), 41-55. Conway 2000, El Sawy 2003
- Van Maanen, J. (1979), The fact of fiction in organizational ethnography. *Administrative Science Quarterly*, Vol. 24, pp 539–550.

- Wang, S. , Archer, (2004) Supporting collaboration in B2B e-marketplace. Information System and e-Business Management, Vol.2.
- Weill, P., Vitale, M. R., (2001) Place to Space: migrating to e-business models. Boston: Harvard Business School Press
- Wigand R.T. (1997) Electronic commerce. Definition, theory and context.The Information Society, Vol. 13, pp.1-16