Relational governance in B2B electronic marketplaces: an updated typology

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Abstract
Purpose – This paper seeks to apply the relational exchange framework, updated by insights on interimistic relationships, to analyze governance implications for the three types of e-marketplaces currently in operation: independent exchanges, consortia, and private exchanges. These three archetypes are analyzed from a functional perspective and, more importantly, from a relationship governance perspective.

Design/methodology/approach – The paper is conceptual in approach.

Findings – The three e-marketplace archetypes currently in existence correspond to different levels of operational integration and, in turn, to three different types of inter-firm relationships. Moreover, the three types of relational structures proposed offer different solutions for governance processes such as partner qualification, monitoring, and enforcement.

Research limitations/implications – The network of relationships between firms is changing all the time as a result of dynamic industry conditions. The relational continuum proposed can explain the focal firm’s shifting reliance on one or another of the e-marketplace types as a result of industry volatility.

Practical implications – The analysis advocates a portfolio approach to e-marketplace adoption, based on the varying strengths of their connections with different industry partners. This approach also implies a new type of segmentation, based on the place that the trading partner occupies on the relational continuum.

Originality/value – When analyzing e-marketplaces, a focus on technology and functional parameters alone misses an essential aspect: when choosing among various e-marketplace formats currently in operation, firms cannot overlook the inter-firm relationships that characterize these marketplaces and give them their identity.

Keywords Electronic commerce, Business-to-business marketing, Governance

Paper type Conceptual paper

An executive summary for managers and executive readers can be found at the end of this article.

In the late 1990s, e-marketplaces were touted as drivers of the new economy, promising to radically change the way companies sell or buy in the B2B market (Brunelli, 1999). Over the last few years, the industry went from unbridled optimism to dismissive disappointment as most e-marketplaces have failed to deliver on these promises. The general perspective in the industry is that the first years were merely a time for identifying and selecting from among emerging technical solutions and building capabilities, while the deployments with customers is just beginning (Karpinski, 2002). Going beyond the nascent stages, the current stage of the evolution process of e-marketplaces is characterized by several specific factors. First, buyers and suppliers are beginning to look at e-marketplaces not only for savings solutions, but also for sources of revenue generation (Krell, 2002). Second, since most of their backers are large multinational companies, these e-marketplaces have a decidedly global outlook. Third, technical solutions such as XML as well as emerging industry standards make it more efficient and effective for participants to link to e-marketplaces. However, technical capabilities such as electronic data interchange (EDI) and enterprise resource planning (ERP) systems (Ghenniwa et al., 2005), represent merely a focus on technology and functional parameters alone, which miss an essential aspect: when choosing among various collaborative solutions, firms cannot overlook the importance of inter-firm relationships that solutions such as e-marketplaces can provide. Going beyond the functionality provided by the software technology, the strength of e-marketplaces lies in their ability to facilitate “value-chain integration” or seamless integration of business functions between collaborating firms by integrating people, information systems, processes, and products. While e-marketplaces are widely analyzed in the commercial and professional media (Joachim, 2002; Ince, 2002, Berryman and Heck, 2001; Phillips and Meeker, 2000), focus on this topic in the academic marketing literature is still in the developmental stages. The adoption of e-marketplace technology has been the most studied aspect of the topic,
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Starting with the basic functions that traditional “offline” intermediaries perform, i.e. matching buyers and suppliers, e-marketplaces can offer a range of advanced services online, from auctions, contract management, providing industry information to sophisticated logistic solutions by closely integrating the activities of buyers and suppliers.

E-marketplaces lend themselves to various, and sometimes overlapping, classifications according to the level of industry specialization, type of ownership, openness of participation, and type of functions performed. Past classifications distinguish between vertical e-marketplaces (e.g. Covisint in the automotive sector or Elemica in the chemical sector) that bring together sellers and buyers within the same industry, and horizontal e-marketplaces, matching sellers of general goods, such as office equipment or maintenance and repair products, with buyers in a wide variety of industries (Grieger, 2004; Son and Benbasat, 2007; Wang and Archer, 2007).

From an ownership perspective, e-marketplaces can be owned by a group of buyers (as Covisint was initially formed) or sellers (Elemica) or by a third party (Grieger, 2004). E-marketplaces are public (e.g. Alibaba.com, a global import-export marketplace) if they allow open participation from a variety of businesses, or private if they allow only selected businesses to participate in the exchange (e.g. GEPlastics, Chemconnect) (Stockdale and Standing, 2002; Grieger, 2004). Functional differentiation of e-marketplaces range from assorters or aggregators (e.g. Globalsources.com) to yield managers and consortia (e.g. Covisint and Elemica) (Phillips and Meeker, 2000; Kaplan and Sawhney, 2000). Yet another taxonomic attempt based on level of transaction automation and its impact on marketing activities proposed four categories:

1. channel enabler;
2. commerce hub;
3. dynamic marketplace; and
4. community portal (Piccinelli et al., 2001).

Not surprisingly, developments in this dynamic industrial arena over the past few years have rendered many of these initial classifications and electronic marketplace types obsolete. Presently, the industry landscape is dominated by three types of players:

1. independent exchanges;
2. consortia; and
3. private exchanges.

These three e-marketplace archetypes have developed sequentially, with independent exchanges emerging in the late 1990s, followed by industry consortia in 2000, and private exchanges in 2001 (Accenture, 2003). In the ecology of B2B e-markets these various forms are not incompatible with one another. Indeed, one firm can operate in all three categories simultaneously, developing a complex network of relationships to serve its various needs by taking a portfolio approach to e-market participation (Haaapaniemi, 2001a). In the following sections, we analyze each of the contemporary types of e-marketplaces, first from a functional perspective and later from a relationship governance perspective.

Independent exchanges

An independent exchange represents a marketing channel broker (or a cyber-intermediary) that performs its role by facilitating exchanges between multiple buyers and sellers in an electronic environment (Bakos, 1991; Bailey and Bakos,
These are e-marketplaces run by neutral third parties and are open to any company in the industry. The model of these independent exchanges tends to vary with the industry, providing functionality demanded by industry needs. In the B2B arena, they range from simple marketplaces such as Alibaba.com, the world’s largest B2B electronic marketplace (Son and Benbasat, 2007), which serves merely as a supplier directory, listing suppliers in many industries and hosting supplier catalogues, to Exostar, a “global trading exchange” for the aerospace and defence industries, which, in addition to facilitating auctions, provides its members with access to technical publications and data, to Chemconnect, which provides trading platforms for commodity products in the energy industry to hosting private collaboration hubs.

The survival of some independent exchanges in the first stage of the B2B e-market evolution and the wave of consolidations in the late 1990s can be ascribed to their response to both effectiveness and efficiency imperatives of clients by offering a distinct set of functional advantages. Effectiveness is achieved by employing Internet technology to rapidly match buyers and sellers by applying each firm’s business criteria in a way that identifies potential trading partners. The easier access to more suppliers and customers means expanded reach and reduced search costs. Furthermore, independent exchanges offer price transparency by providing participants with the ability to dynamically price goods and services through mechanisms such as auctions. These two factors make independent exchanges a popular option for offloading excess inventory.

Efficiency-wise, independent exchanges allow reduced cycle time between bidding and awarding of business, because less paperwork is needed to respond to a buyer’s request for quote. In turn, a shorter time between submission of the bid and the actual transaction allows the seller to better plan and schedule production and to reduce inventory levels (Smeltzer and Carr, 2003). The increased speed of arriving at transaction prices by negotiating online results in operational cost advantages for firms trading on independent exchanges. Moreover, firms can save on customer acquisition costs by performing expensive offline prospecting tasks through on-line procedures, with costs being reduced to the transaction fee paid to the e-marketplace.

Besides additional services such as updated trade information and industry news or information about supply and availability, some auction sites also offer supply and payment guarantees, and history of past transactions of firms. These guarantees and data mining facilities indicate attempts by the exchanges to move beyond matching buyers and sellers towards provision of transaction facilitating services and towards creation of an institutional infrastructure in the form of trust building mechanisms (Bakos, 1998).

Besides the obvious technical challenges, the lack of trust building mechanisms explains the lack of integration, difficulties in setting information and process standards for participants in e-marketplaces and it has allowed the emergence, over the past three years, of two new sets of players, consortia and private exchanges. These players have traded the expanded reach provided by independent exchanges for increasing levels of integration.

**Industry consortia**

Consortia have a major advantage when compared to independent exchanges: they have the support of large players in their respective industries and, consequently, have had since inception the critical mass needed to be profitable and to attract other players (Grieger, 2004). While the support of large players allowed these e-marketplaces to quickly obtain the scale that ultimately ensured their survival, attracting the small business sector represents now both an important opportunity and a challenge for these players. By spreading the costs and investments among several large players, and by facilitating the emergence of industry-wide standards with respect to operational issues (Bort, 2002), consortia significantly reduce the functional risks of exchange participants. An example of a successful consortium today is the World Wide Retail Exchange, which serves as an independent hub for retailers and manufacturers in the food, general merchandise, textile/home, and drugstore industries.

Although a consortium may have been originally co-founded by a few companies, it continues to add owners over time. The owners represent one side of the trading partnership, the other side being multiple buyers (in a sell-side portal) or multiple sellers (in a buy-side portal) that trade as members in these consortia. In some cases, the traders may be buyers and suppliers at the same time, often acting as collaborating competitors (Brandenburger and Nalebuff, 1996).

A consortium provides services ranging from catalogue management and contract management to settlement and transportation management. Transportation efficiencies by freight sharing, coordinating insurance of goods, payment and settlement guarantees, and facilitating transactions in multiple currencies are some of the other services provided by consortia. Given the nature of activities that are facilitated by a consortium, it becomes the depository of extremely rich and valuable knowledge on a specific industry. While the level of integration among players increases in consortia, relative to independent exchanges, it is still lacking when compared to the deep, rich integration that players in a private exchange environment use.

**Private exchanges**

Private exchanges are created by firms in order to transact with their preferred business partners in secure environments (Haapaniemi, 2001b). Like consortia, private exchanges can be set up both by buyers or by sellers. Private exchanges allow companies to take advantage of the speed and connectivity that internet technology offers while controlling access to sensitive information. Companies that have created their own private exchanges include Cisco, Dell, GE Trading Partner Network, and Wal-Mart.

By linking among themselves via a private network, companies have the technical capabilities to work together on common projects and to achieve efficiencies by commonly managing their logistics. Delivered by technology, collaboration allows the parties to better use human and capital resources, to avoid redundancies in the supply chain, and to achieve decreases in procurement costs (Bello et al., 1999). The major source of supply chain efficiencies is standardization and automation of information exchange achieved by minimizing data entry and maximizing automatic recall of routine information thus reducing input redundancies, error rates, cycle time and staff time (Mabert et al., 2000). The electronic communication between firms thus facilitates inventory and production planning through a coordinated exchange of information. Moreover, private exchanges become a secure platform for online project
management and for sharing supply chain management tools with partners in the form of customized information.

Comparing functional aspects of e-marketplace archetypes
Table I summarizes the various functional characteristics of the three e-marketplace archetypes and enables a direct comparison. In many respects, independent exchanges and private exchanges are polar opposites, while consortia share characteristics with both.

Independent exchanges are based on spot transactions of standardized products in horizontal markets with the buyers’ primary concern being reduction of cost of goods purchased using an auction mechanism. Consequently, the success of the auction depends on allowing access to, and attracting, a large number of potential trade partners across a variety of industries. Firms trade infrequently with one another and switch easily from one partner to another depending on who offers the best price.

On the other hand, private networks allow a small number of carefully selected trade partners to work together on delivering highly customized and often strategic products. The aim here is not so much a reduction in the cost of goods produced, as in streamlining the supply chain and lowering the cost of procurement.

Consortia occupy a middle position between independent exchanges and private networks on the relational dimension. Here, dominant players from a specific industry trade with a set of common suppliers or customers. For the most part, the products are industry-specific but not of the strategic kind, i.e. commodity products specific to the industry, such as standard grade chemicals and plastics as traded in Elemica or Omnexus. Partners may engage in repeated transactions, but not in close collaboration as in the case of private exchanges.

The relational continuum: three types of relational governance
The analysis offered so far focuses primarily on the functional characteristics of each of the three types of e-marketplaces. While many researchers focus on applying web-enhanced technology to streamline the operational side of initiating and completing exchanges (see, for example, Lancioni et al. 2003), this functional perspective represents only a part of the e-marketplace activities. E-marketplaces must apply technology to address both types of exchange activities: the functional or operational tasks involved in trading, and the governance or control tasks of assuring that trading commitments are fulfilled.

Clearly, e-marketplaces have the potential to improve the functional aspects of the exchange: the speed and efficiency of processing orders, the acts of billing, approving credit, or transporting and other exchange activities of its trading members. However, web-based technologies and software automation procedures can also greatly streamline and reduce the cost of governing exchange transactions. For example, an e-marketplace should also provide an institutional infrastructure to the exchange process by way of regulatory actions rendered in the form of partner selection, monitoring, and enforcement of trading agreements. As an intermediary that exists to facilitate exchanges, the very existence of any e-marketplace rests on smooth functioning via good governance. A trading institution can be a marketplace only when it undertakes both, the functional as well as governance activities. The following section explains the theoretical underpinnings of the relational governance structures.

Relational governance – a theoretical evolution
The analysis of inter-firm relationships in the context of e-marketplaces has so far been based on Williamson’s (1975, 1985) transaction cost theory. The “move towards the market” hypothesis advocated by Malone et al. (1987) indicates that information technology has the potential to greatly lower transaction costs because it simplifies communication and information search and facilitates the exchange of products with complex descriptions. Lower transaction costs enable the firm to increase its reliance on outside suppliers. Hence, as predicted by Malone et al. (1987), information technology moves inter-firm relationships away from hierarchy towards the market. This perspective is supported by Gurbaxani and Whang (1991), who argue that use of information technology is likely to reduce the size of the firm due to increased use of outside suppliers.

An alternative theoretical perspective by Clemons et al. (1993), also based on transaction cost theory, and building on Malone et al.’s (1987) argument, agrees that information technology implies greater use of outside suppliers. However, it argues that much of the IT investment is transaction-specific and that parties would normally avoid a “locked in” situation. The key, suggest Clemons et al. (1993), is the development of cooperative, trust-based relationships among partners that would shield them from each other’s potential opportunism. The inherent time and effort required for establishment of cooperative relationships limits the number of ties established. Bakos and Brynjolfsson (1993) reach a similar conclusion based on the increasing importance of quality brought about by information technology, suggesting that to provide incentives for suppliers to invest in quality a
firm has to rely on closer relationships with a smaller number of suppliers.

Thus, the prevailing theoretical developments in the field indicate that information technology will generate a choice between two opposite governance structures: 1) market mechanisms; and 2) trust-based, cooperative relationships.

This relational continuum between market and trust-based relationships thus takes the debate outside the purview of transaction cost theory into the realm of relational exchange (Macneil, 1980).

Macneil (1980) proposed that contractual relationships can be organized along a continuum from arm’s length relationships, where the identity of trading parties is inconsequential, to long lasting relationships characterized by trust and commitment, with a few well selected partners (Morgan and Hunt, 1994). This paradigm induced a paradigm shift in the study of inter-firm relationships that spun a whole body of research starting in the 1980s and continuing to the present day (Joh, 1984; Weitz and Jap, 1995; Wathe and Heide, 2004). Moving along this relational continuum, firms increasingly develop and rely on behavioural expectations of each other, such as flexibility, solidarity, and open exchange of information (Heide and John, 1992). However, these social norms manifest between firms engaged in close collaboration with each other emerge slowly, over a long period of time (Ganesan, 1994).

More recent research focus on the development of relationships that are trust-based in nature but take only a short time to develop (Grayson and Ambler, 1999). Lambe et al. (2000) call them interimistic relationships and define them as “close, collaborative, fast developing, short lived exchange relationships in which companies pool their skills and/or resources to address a transient, albeit important, business opportunity and/or threat” (Lambe et al., 2000, p. 213). In interimistic relationships, trust does not have time to develop and parties rely on proxy indicators such as their partner’s reputation for fair dealing, prior exchange interactions, or industry certifications (Zucker, 1986). Similarly, social norms cannot develop in the short life span of interimistic relationships and they are replaced to some extent by industry-wide exchange norms and the culture of the industry (Gulati et al., 1994). Lambe et al. (2000) place interimistic relationships in the middle of the market-trust continuum proposed by the relational exchange theory.

It is important to stress that trust based relationships and social norms develop specifically for the purpose of managing the increased coordination needs generated by tighter functional integration (Robicheaux and Coleman, 1994). As we have indicated previously, independent exchanges, consortia, and private exchanges correspond to increasing levels of operational integration. Consequently, we propose that the three forms of e-marketplaces currently in existence also correspond to the three different types of relationships – i.e. arm’s length, interimistic, and relational – as presented in Figure 1.

Moreover, the three governance structures have distinct governance processes in terms of the partner qualification, partner monitoring and contract enforcement required to mitigate the risk of opportunistic behaviour of partners (Rindfleisch and Heide, 1997). Qualification is the verification of the proposed partner’s competence to perform as per established standards (Heide and John, 1990, p. 25). Despite partner qualification the likely “moral hazard problem” cannot be dismissed. Additionally, opportunism could be passive in the form of shirking of responsibility, even though the capability to perform may exist (Wathne and Heide, 2000), necessitating the implementation of ex post safeguards such as monitoring and enforcement.

The e-marketplace is not unlike a central processing unit with all information on transactions flowing through it. This enables the e-marketplace to perform its role of monitoring members efficiently. Monitoring represents the first step towards ensuring compliance with “established standards for quality, delivery, or other aspects of performance” (Stump and Heide, 1996, p. 433) required by the e-marketplace. Finally, enforcement represents matching rewards and sanctions to the partner’s behavior in an appropriate fashion (Wathne and Heide, 2000).

Indeed, the very fact that these three forms of e-marketplaces have survived the 2000-2002 industry shake-out elucidates not only their technical potential but also the fact that their functioning enables efficient governance processes. In the following, we explore the different ways in which the three types of e-marketplaces implement qualification, monitoring, and enforcement processes.

**Relationship governance in independent exchanges**

By easy matching of buyers and sellers and a focus on price, the independent exchange provides functional benefits to the trading parties. However, independent exchanges cannot provide sophisticated mechanisms to help the firm guard against the potential opportunistic behaviour of their trade partners. Instead, firms protect themselves by limiting their exchanges to standardized products that make partner qualification unnecessary. Similarly, spot transactions eliminate the need for extensive partner monitoring, while recourse to court or to competition represent the only contract enforcement mechanisms. Nevertheless, even in the case of a very simplified exchange operation, potential for opportunism continues to exist. Besides the risk of getting caught up in the frenzy of a reverse auction and offering unrealistically low prices, suppliers worry that buyers could opportunistically use the reverse auction mechanism as a way to obtain information about the market price, which serves as a leverage to bargain with current suppliers without giving outside suppliers a real chance (Smeltzer and Carr, 2003).

Given the reliance on price and commodity trading that is characteristic of auction mechanisms, the identity of the parties will not matter. Firms will have no incentives to make partner-specific investments in common technological solutions aimed at greater operational integration. From an inter-firm relationship perspective, although buyers and sellers on an exchange might have the opportunity to transact repeatedly because sellers might be frequently overstocked and buyers are interested in bargains, firms trading on independent exchanges are not looking for long-term relationships, and consequently, loyalty between the two parties will be scarce (Davenport, 2001). Hence:

**P1.** Firms transact on independent exchanges when relationships with their trade partners are at arm’s length.
**Relationship governance in consortia**

Compared with an independent exchange, the consortium possesses a greater capability to foster trusting relationships by assisting in partner qualification, partner monitoring and contract enforcement. Consortia have the potential to screen out unqualified firms by eliminating applicants with poor credit ratings and questionable business reputations. For example, buyers selected to be members are expected to have a reputation for timely settlement and lack of conflict.

To facilitate partner monitoring, a consortium’s contract management function provides contractual compliance data regarding product quality, delivery timeliness, and promised post-sale services. Essentially, the consortium can provide both parties with comprehensive yet subtle surveillance mechanisms to ensure fulfilment of contractual terms, thereby reducing the possibility of opportunism by making the transaction transparent to buyers as well as sellers. Similarly, in cases of extreme opportunistic behaviour, enforcement could take the form of relationship termination, where a trade partner is expelled from the e-marketplace. Performance of governance processes such as qualification, monitoring, and enforcement in a consortium setting is facilitated by reputation mechanisms and by the macro-culture of the consortium.

Reputation is an enduring estimation of one’s ability and trustworthiness (Jones et al., 1997), which plays a significant role in preventing opportunistic behavior of participants in a consortium. Participants in the consortium tend to be large, dominant firms and their network of suppliers in an industry. The firm is thus embedded in a complex network of connections with other firms in the industry (Granovetter, 1992). In situations of high connection density (defined as the number of network ties divided by the number of possible ties) it is likely that there will be intense scrutiny of individual firm behavior and faster communication of relevant information to third parties (Brass et al. 1998). These phenomena enhance the impact of reputation effects, both as a substitute for partner qualification and as a tool for safeguarding the exchange.

A macro-culture is “a system of widely shared assumptions and values, comprising industry specific, occupational or professional knowledge, that guide action and create typical behavioural patterns” among participants in a consortium (Jones et al., 1997; Abrahamson and Fombrun, 1994). Macro-cultures characterize any industry and existed before the emergence of consortia, facilitated by professional qualifications, trade magazines, and role models within the industry. Interaction among a small group of players from the industry facilitates the emergence not only of functional standards but also of behavioural norms. The greater the number of connections and frequency of interaction among companies trading in the consortium, the greater the likelihood of sharing a common system of values and normative assumptions. In turn, this common system of behavioral norms and expectations is effective in preventing opportunistic behaviors because it creates conditions for collective sanctions. This refers to a situation in which members of the consortium may punish violators of group norms by using a whole range of actions from spreading rumors within the industry to avoiding trade with them.

In sum, to ensure coordination of interdependent activities of participants in the exchange while mitigating the potential opportunism of exchange participants, firms in consortia can neither rely on price mechanisms alone, nor do they have a trusting relationship in place, being only loosely tied to one another. Consequently, they have to rely on reputation...
safeguarding, a system of industry-wide behavioral norms and collective sanctions that are specific to interimistic relationships:

P2. Firms transact on consortia when the relationships with their trade partners are interimistic.

While the number of participants may be large, they conduct only a small part of their business in the consortium. Also, in most situations, orders that are placed in the consortium are for non-strategic goods and services. Participants are reluctant to share strategic information with the consortium for fear that other parties could conceivably have access to it. This reluctance to share strategic information with trade partners points to the fact that a consortium has only a limited capacity to build trust. In situations where there is a need to build more trust to ensure closer, more collaborative relationships, rather than relying on a third party, the focal firm might decide to address this question by building an e-marketplace of its own, a private exchange.

Relationship governance in private exchanges

A private exchange is usually formed and operated by an individual company that conducts transactions with a limited number of invited trade partners. Thus, a private exchange is essentially an electronic version of the traditional supply chain. While the other two types of e-marketplaces are public, the private exchange enables sharing of sensitive information between firms by offering confidentiality. This deep level of inter-firm integration opens the possibility of taking advantage of web technology to engage in deep collaboration between various divisions of the focal firm and divisions of its trade partners in areas such as product design collaboration or collaborative planning. To make this close level of integration possible, participants invest transaction-specific investments of a common platform and use common standards. Although this large investment results in a locked-in situation as per transaction cost theory (Williamson, 1975), it is justified by the high value and frequency of transactions between trading partners and by locking out competitors.

Evidently, private exchanges become not only a great functional tool to foster collaboration but also an effective method for stifling potential opportunistic behaviour (Pavlou, 2002). First, partners are selected from among preferred suppliers based not only on past performance but also on a history of close relationships and consistent display of relevant norms and behaviors. Second, monitoring partner performance and compliance with agreements is easy given the limited number of partners and the close interaction and information management capabilities provided by the private exchange technology. Finally, by virtue of reciprocal investments in relationship specific assets, parties have an equal stake in the success of common projects and agreements become self-enforcing (Heide, 1994). As indicated earlier, open sharing of information, value-based partner selection and mutuality of interest are characteristics of a trust-based relationship:

P3. Firms transact on private exchanges when the relationships with their trade partners are relational.

At any given time, the firm is embedded in a network of connections with other firms (Granovetter, 1992) and these connections have various levels of relationalism. The three e-marketplace archetypes currently in existence correspond to different levels of operational integration and, in turn to three different types of inter-firm relationships (Figure 1). Whereas consortia and private exchanges imply a need to invest in reputation building within the industry or in building close relationships with a focal firm, independent exchanges, with their focus on price, preclude the need for such investments and thus maintain inter-firm relationships at arm’s length (Table II).

Furthermore, the three types of relational structures that we propose offer different solutions for governance processes such as partner qualification, monitoring, and enforcement (Table III). From an e-marketplace adoption standpoint, this analysis allows us to draw several important managerial and theoretical implications, which we discuss next.

Managerial implications and future research

The present paper proposes relational exchange theory for the study of governance processes in e-marketplaces as an alternative to transaction cost theory (Williamson, 1975) and the resource dependency approach (Rasheed and Geiger, 2001). Akin to the previous two approaches, relational exchange theory has the advantage of a fully developed body of knowledge in which the research field of e-marketplaces can be grounded. It also offers a rich potential for cross-fertilization, in terms of theoretical insights, empirical results, and practical prescriptions.

The three types of e-marketplaces discussed in this paper represent archetypes. E-marketplaces are a dynamic concept and continue to evolve into different forms with advancing technology and the demarcations that we have suggested between the three types may not always be clear. Although this study was based on a research of tens of websites, it is a conceptual study and data about the evolution and growth of these e-marketplaces would enhance its value to managers. An empirical study of these e-marketplaces could shed additional light on the specific capabilities of each and enable a more specific classification.

Nevertheless, considering the tremendous impact that the 2001 recession had on the B2B e-marketplace landscape, it becomes imperative to better understand the effects of the industry environment on the firm’s relative reliance on the three e-marketplace archetypes. The network of relationships between firms is changing all the time as a result of dynamic industry conditions. Furthermore, the form of these electronic marketplaces is constantly changing (Skjott-Larsen et al., 2003) with rising global trade. Environmental uncertainty affects both, the functional and relational sides of transactions. From a functional perspective, environmental uncertainty will impact the magnitude of economies of scale and economies of scope effects (Thompson and Formby, 1993). From a relational perspective, since bounded rationality makes it difficult for parties to foresee all possible circumstances to be included in the contract, an uncertain environment, such as a fast developing global trade environment makes, opens the door to opportunistic tendencies of the trading partner (Klein et al., 1990).

A highly uncertain industry environment, characterized by partner diversity and technological change (Dess and Beard, 1984; Sharfman and Dean, 1991), has the potential to weaken the relationships between partners and to favor increased transactions on independent exchanges. For instance, the emergence of new trading partners in the newly industrializing economies, such as those of China, Russia, and India, requires an adjustment of trading practices and a
For those firms intending to adopt an e-marketplace to achieve savings in transaction costs, it might serve well to analyze the possible savings offered by various types of e-marketplace before selecting the most suitable one. If the objective of joining an e-marketplace is merely to realize some savings in costs by expeditiously locating buyers or sellers, one of the more basic marketplaces will serve the purpose. An example of a marketplace that appears to be serving this objective well is Alibaba.com, which has become the largest B2B electronic marketplace by virtue of providing a vast directory of buyers and suppliers, enabling expeditious matching (Son and Benbasat, 2007).

While some researchers hold that the e-marketplace environment is not conducive to trust and commitment (Wang and Archer, 2007), we argue that more substantial and long-term savings may be realized only by associating with a consortium or a private exchange, which go beyond the matching function to provide a platform that can facilitate trust and commitment and also provide advanced governance functions. Trust and commitment develop as a result of matching (Son and Benbasat, 2007).

On the other hand, engaging in close relationships with preferred trading partners on a private exchange is not free from drawbacks. Increased interaction with similar players over time leads to the creation of network cliques – densely connected subgroups of firms with strong reciprocal ties (Brass et al., 1998). A firm over-embedded in a clique is removed from interaction with other groups and might miss important industry developments and opportunities to learn. Sometimes functional and governance objectives might be at odds. For example, a consortium might want to grow by attracting as many small and medium enterprises as possible. However, too large a number of players would inhibit the reputation mechanisms by making monitoring difficult and cluttering communication channels.

In sum, our analysis advocates a portfolio approach, with firms transacting on multiple types of e-marketplaces based on the varying strengths of their connections with different industry partners. This portfolio approach to e-marketplace adoption also implies a new type of segmentation, based on the place that the trading partner occupies on the relational continuum.

In terms of future research, in addition to the questions the above discussion raises, it is necessary to examine the exact nature of the transaction cost savings that e-marketplaces have the capability to generate. Are the savings likely to be more in certain types of industries as compared to others? What characteristics of companies induce them to adopt this new technology? These are just some of the questions that could generate interesting future research.

Table II  A comparison of the three types of e-marketplaces – a relational governance perspective

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Independent exchanges</th>
<th>Consortia</th>
<th>Private exchanges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of inter-firm relationship</td>
<td>Competitive</td>
<td>Interimistic</td>
<td>Highly collaborative</td>
</tr>
<tr>
<td>Guiding principle</td>
<td>Price</td>
<td>Reputation</td>
<td>Trust</td>
</tr>
<tr>
<td>Communication</td>
<td>Many to many</td>
<td>Few to few</td>
<td>One to few</td>
</tr>
<tr>
<td>Time orientation</td>
<td>Spot transactions</td>
<td>Medium-term relationships</td>
<td>Long-term relationships</td>
</tr>
<tr>
<td>Partner-specific investments</td>
<td>None</td>
<td>Minimal</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Table III  Governance processes in e-marketplaces

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Independent exchanges</th>
<th>Consortia</th>
<th>Private exchanges</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring</td>
<td>Predominantly technical</td>
<td>Technical + values and goals alignment</td>
<td>Predominantly based on values and goals alignment</td>
<td></td>
</tr>
<tr>
<td>Enforcement</td>
<td>Legal system</td>
<td>Intermediate, both output- and behaviour-based</td>
<td>Extensive, predominantly behavior-based</td>
<td></td>
</tr>
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References


Relational governance in B2B electronic marketplaces
Cristian Chelariu and Vinita Sanghani


Further reading


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Relational governance in B2B electronic marketplaces

Cristian Chelaru and Vinita Sanghani

Executive summary and implications for managers and executives

This summary has been provided to allow managers and executives a rapid appreciation of the content of the article. Those with a particular interest in the topic covered may then read the article in toto to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefit of the material present.

The advice not to put all your eggs in one basket was voiced long before anyone began to talk about the concept of relational continuums. So, while the old saying’s wisdom still holds as true as it ever did, these days the metaphorical basket might be more of an awareness that no one solution is automatically always the correct one for a particular situation. As circumstances alter, constant monitoring of changes, coupled with the agility and flexibility to adjust your working practices accordingly, is likely to afford better protection than will a fixed “single basket” approach.

In their study of relational governances in B2B electronic marketplaces, Cristian Chelaru and Vinita Sanghani advise such a portfolio approach – which implies a new type of segmentation, based on the place that the trading partner occupies on the relational continuum.

The prevailing theoretical developments in the field indicate that information technology will generate a choice between two opposite governance structures:

1. market mechanisms; and
2. trust-based, cooperative relationships.

This relational continuum between market and trust-based relationships takes the debate outside the purview of transaction cost theory into the realm of relational exchange.

Three types of players dominate:

1. independent exchanges;
2. consortia; and
3. private exchanges.

They are not incompatible and one firm can operate in all three categories simultaneously.

An independent exchange represents a marketing channel broker (or a cyber-intermediary) that performs its role by facilitating exchanges between multiple buyers and sellers in an electronic environment. These are e-marketplaces run by neutral third parties and are open to any company in the industry.

Industry consortia have a major advantage when compared to independent exchanges: they have the support of large players in their respective industries and consequently the critical mass needed to be profitable and to attract other players. While the support of large players allowed these e-marketplaces to quickly obtain the scale that ultimately ensured their survival, attracting the small business sector now represents both an important opportunity and a challenge.

Private exchanges are created by firms to transact with their preferred business partners in secure environments. Like consortia, they can be set up both by buyers or by sellers. Private exchanges allow companies to take advantage of the speed and connectivity that the Internet offers while controlling access to sensitive information.

A highly uncertain industry environment, characterized by partner diversity and technological change, has the potential to weaken the relationships between partners and to favor increased transactions on independent exchanges.

For instance, the emergence of new trading partners in the newly industrializing economies, such China, Russia, and India, requires adjustment of trading practices and a slower development of relationships due to cultural differences, which could require a shift from trading in consortia to independent exchanges. On the other hand, a stable environment, characterized by abundant demand and a homogeneous set of industry players might facilitate long-term planning horizons and establishment of close relationships among partners, which implies increased growth of private exchanges.

Consequently, the focal firm’s relative reliance on one or another of the e-marketplace types will change accordingly, in terms of share of trading, volume of transaction, or strategic emphasis. For these reasons, both practitioners and scholars predicted that firms will likely adopt not just one type, but several types of e-marketplaces.

The authors propose that, in the process of adopting technology and moving their existing relationships online, companies should not overlook the need to match the type of relationships supported by a particular type of e-marketplace with the current state of their own relationships. While any of these forms of e-marketplaces can facilitate to mere trading of commodity products or maintenance, repair, and operations services (MRO), it is the trading of non-commodity and specialty products and the relational aspects of trade that require careful consideration in selection of compatible e-marketplaces.

For those firms intending to adopt an e-marketplace to achieve savings in transaction costs, it might serve well to analyze the possible savings offered by various types of e-marketplaces before selecting the most suitable one. If the objective of joining an e-marketplace is merely to realize some savings in costs by expeditiously locating buyers or sellers, one of the more basic marketplaces will serve the purpose.

While some researchers hold that the e-marketplace environment is not conducive to trust and commitment, the authors argue that more substantial and long-term savings may be realized only by associating with a consortium or a private exchange, which go beyond the matching function to provide a platform that can facilitate trust and commitment and also provide advanced governance functions. Trust and commitment develop as a result of information exchange and the relationship goes beyond achieving supply chain efficiencies to collaboration on, for instance, planning, forecasting, and design.

In sum, the analysis advocates a portfolio approach, with firms transacting on multiple types of e-marketplaces based on the varying strengths of their connections with different industry partners.
