Do Auctions on the Internet Forward the Occurrence of Opportunistic Behavior? – An Analysis of Confronting or Conforming Factors for Buyer-Supplier Relationships

Category: Work-in-Progress

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Abstract

In buyer-supplier relationships, buyers may intend to exit the relationship and conduct future transactions via reverse auctions on the Internet. Such a decision often aims at reducing coordination as well as production costs. But for a complete picture, buyers also need to consider a possible alteration in supplier behavior. The present paper theoretically derives factors to distinguish under which circumstances a change in procurement processes forwards supplier fraud. This is important with respect to the relevance of existing relationships as mechanisms for coordinating exchange. If auctions forward opportunism, buyers will abstain from using them and will probably stay in their relationships (conformation). But if the likelihood of fraud is not increased, buyers may change procurement processes and substitute their relationships for auctions (confrontation).

Our research approach is based on theoretical considerations as well as a case study on German retailers' private label procurement processes. The New Institutional Economics serves as theoretical background, particularly the Information Economics (IE) and Transaction Cost Economics (TCE) strings of research. IE allows us to analyze the information asymmetry between the actors and the way it changes if buyers contracts suppliers via reverse auctions. The analysis is then extended based on a model developed by Nooteboom (1996) that comprises three main factors to explain the occurrence of opportunistic (supplier) behavior: (1) incentives for opportunism, (2) opportunities for opportunism, and (3) propensity towards opportunism. With this model we deliberately deviate from the traditional TCE point of view where opportunism is seen as a given human characteristic. In contrast, we take a varying propensity towards opportunism across actors into account and focus on variables that determine this propensity. At this point, aspects that are considered important within the IMP interaction model like atmosphere and relationship closeness are integrated into our analysis.

The paper contributes to the research on relationship management in electronic commerce settings by providing a model that considers the individual situation of buyers and suppliers and explains the occurrence of opportunistic behavior. Both, the theoretical analysis and the case study show that a high degree of buyer dependency and/or independent suppliers forward the occurrence of supplier fraud. Hence, in such contexts, existing relationships are conformed as buyers are well advised not to switch to auctions. In other situations, confronting factors are dominant. Apart from online reverse auctions the model can also be applied to other types of transaction patterns. Besides, the paper offers advice for the managerial practice of handling procurement processes. Buying agents may forecast the consequences of using different forms for coordinating their sourcing efforts.

Keywords: relationships, information asymmetry, auction, opportunism, economics of information.

Introduction

Since the mid 1970s the research of the IMP Group has stressed the relevance of business relationships in industrial markets. From this point of view, relationships and networks of relationships are the central modes of exchange in industrial markets (Hakansson 1982; Hakansson and Snehota 1995; Ritter, Wilkinson, and Johnston 2004). Relational exchange thereby is often characterized by close forms of communication, mutual commitment, and trust between the involved parties (Hakansson 1982; Morgan and Hunt 1994). A controversially discussed question that in recent years has gained comparatively large attention within the realm of IMP research refers to the consequences of the rapid development of information and communication technology (ICT), especially of electronic commerce, for these business relationships (see e.g. the literature survey in Andersen and Kragh 2005): Will electronic interaction – as has been suggested by some authors (e.g. Malone, Yates, and Benjamin 1987) – lead to an overall shift towards more usage of market based forms of coordination rendering business relationships less important or even redundant? Or will due to the new, improved forms of communication the closeness of relationships – as proposed by others (Hartmann, Ritter, and Gemünden 2002; Oppel, Lingenfelder, and Gemünden 2002) – be even strengthened, thereby increasing the relevance of relationships for business exchange?

With the present paper we aim at contributing to this discussion and justify the ambivalent answers by referring to different types of circumstances. As was pointed out by Anderson (1983) and Easton (2002), such a building up on existing contributions is necessary in order to develop marketing as a theoretical field. In order to provide an answer to the above question(s), our approach, however, is somewhat different from what has been done before. To refine our line of argumentation, we make use of a distinction suggested by Easton and Araujo (2001): They differentiate between virtual market-places (VM) and inter-organizational information systems (IOS) as two forms of e-technology. In our paper, we focus solely on one specific type of VM: online reverse auctions, in which buyers put out a tender for that suppliers may bid (for further characteristics see Hartmann, Ritter, and Gemünden 2002; Jap 2002; Daly and Nath 2005). Moreover, the authors differ between two types of b-to-b markets: competitive and relational markets. Whereas the former can be characterized by the classical economic notion of purely price-driven markets, the latter "corresponds to what we would consider the defining phenomenon of IMP research and writing" (Easton and Araujo 2001, p. 3). We start our argumentation, focusing on the latter type, where buyers and suppliers have been engaged in a close business relationship in the past. Referring to the first network paradox (Hakansson and Ford 2002), existing relationships of companies are fundamental for the current operations and developments, "but those relationships also restrict that development" (Ford et al. 2002, p. 8). We analyze whether an intended change of the vertical supply chain structure conforms or confronts existing buyer-supplier relationships as forms of coordinating exchange (Ford et al. 2002). Both alternatives could be possible: If the usage of online reverse auctions led to more supplier opportunism, existing relation-ships would probably be conformed (i.e. stabilized) as buyers would ultimately abstain from using auctions instead of relationships. If, however, for certain contexts, to be defined later, these adverse effects in terms of supplier fraud when switching to auctions did not emerge, this would confront existing relationships since they would probably be replaced.

In other words, we investigate if the possibility to conduct online reverse auctions will change the market from a relational to a competitive type and which consequences with respect to the risk of supplier opportunism can be expected. Although we acknowledge that opportunism is not by far a ubiquitous motivation of human beings (Johanson and Mattsson 1987, p. 44), it has to be considered and explained as one possible and empirically observable form of behavior. The reason for its prominent role within our approach is that e.g. the provision of bad quality at one stage of the supply chain may have severe negative consequences for the whole supply network. Hence, if for all situations conceivable a promotion of supplier fraud due to the usage of online reverse auctions were the case, a switch from relational to competitive forms of coordinating transactions would be senseless from an economic viewpoint: The reduction in coordination costs (process improvements as well as lower search costs) and input prices as major strategic objectives to be achieved by making use of reverse auctions would probably be overcompensated by increased motivation costs for safeguarding against behavioral uncertainty (Milgrom and Roberts 1992; Garicano and Kaplan 2001). Thus, for this type of VM a shift towards more usage of market based forms of coordination is doubtful. However, more likely than the scenario just described is the case that for certain types of constellations the risk of supplier fraud is likely be increased by the usage of online reverse auctions, therefore strengthening the role of relationships that mitigate opportunism by trust and commitment. Yet, for other types of

circumstances such a switch of procurement methods may not lead to a higher likelihood of opportunistic behavior by the supplier. In these cases, a shift towards online reverse auctions as market based forms of coordination may be predicted. In our paper, we aim at identifying these different types of situations from a theoretical viewpoint.

The paper is structured as follows: In the next section, we lay out the theoretical basis for our analysis describing information asymmetries within buyer-supplier procurement transactions and the resulting optimal amount of fraud from an IE viewpoint. In a second step, this analytical approach is extended by combining the findings from IE with a model developed by Nooteboom (1996) which outlines the determinants of opportunistic behavior within transactions based on considerations of modern TCE. In section 3, this model is applied to online reverse auctions in order to determine which of the factors influencing the occurrence of supplier fraud are (adversely) affected by an intended change of the vertical supply chain structure. Based on this first part of the analysis, we are then able to theoretically derive two types of constellations: one for which a switch of the procurement method towards competitive markets is likely to be unproblematic and another one for which changing the setup to online reverse auctions may result in a higher likelihood of supplier fraud. Our findings are then illustrated in a case study on the private label (PL) food industry in section 4. Managerial implications and some summarizing remarks concerning future research conclude the paper.

Theoretical Background of the Analysis

Buyer-Supplier Information Asymmetry from an Information Economics Perspective

Based on Stigler's (1961) idea of search costs, Nelson (1970) and Darby and Karni (1973) suggested the distinction between search, experience, and credence qualities of goods. Despite the popularity of this concept in economic theory and management practice, there remains confusion on how to differentiate between those qualities. The distinction can be based on the points in time, when a consumer *can judge* the quality of a product. In accordance with the original approach of Nelson, the distinction can also be based on the points in time, when a consumer *is actually judging* the quality (Welling 2006): Although being basically able to assess the quality of a good, a consumer may abstain from doing so due to high inspection costs. Based on widely used IE models in literature, we refer to Nelson-Situations (Nelson 1970), if the qualities of a good can be observed by inspection during the search process prior to purchase. In contrast, we refer to Akerlof-Situations (Akerlof 1970), if inspection is only possible after purchase. Finally, we call those cases Arrow-Situations (Arrow 1963) in which goods can neither be inspected before nor at any time after the purchase. Depending on a cost-benefit analysis in the respective buying situation, economic agents will – if possible – try to either inspect factual search qualities before the purchase or delay the inspection to a point in time after the purchase, or will never inspect the qualities at all. In other words: Depending on the situation, factual search and/or experience qualities which can be judged may become calculus experience and/or credence qualities by the actor's deliberate choice.

Accordingly, these situations lead to different informational problems: In Nelson-Situations, a potential customer can verify the supplier's information on a good's qualities before making the decision. Opportunistic behavior like the presentation of false or misleading information can be discovered since the qualities can be observed prior to purchase. Therefore, depending on the buyer's costs of inspection, suppliers cannot expect to gain an advantage by providing false information. Since in Akerlof-Situations qualities cannot be discovered until the good is purchased or used after purchase, a potential customer cannot verify information on those qualities of a certain good prior to purchase. This informational disadvantage of potential customers in comparison to the better-informed suppliers is called information asymmetry. In these cases, customers have to be aware of opportunistic supplier behavior like the provision of misleading information or the delivery of poor product quality. But due to the information asymmetry it is difficult to reveal fraudulent behavior. Thus, according to the analysis of Darby and Karni (1973), the optimal amount of fraud increases with rising information asymmetries.

Preconditions for Fraudulent Transactions

Darby and Karni's analysis on the optimal amount of fraud is solely based on different levels of information asymmetry. Nevertheless, it fits in a wider but closely related research context: In the New Institutional Economics framework, researchers have discussed the determinants of opportunistic

behavior in transactions in general. The following section is largely based on a model developed by Nooteboom (1996). This model comprises three main factors to explain the occurrence of opportunistic conduct leading to fraudulent transactions: (1) incentives for opportunism, (2) opportunities for opportunism, and (3) propensity towards opportunism. However, due to some delineation problems with respect to the three identified main variables affecting the level of a supplier's (S) fraud against a buyer (B), few adjustments concerning the allocation of certain sub-factors have been made.

Rising **'incentives for opportunism'** – the first determinant in Nooteboom's model – increase the risk of opportunistic supplier behavior. This variable reflects the monetary net benefit the supplier S might realize through opportunistic behavior against B (Nooteboom 1996; Boehme 1999). It can be subdivided into the benefits of an act of opportunism as well as into its costs (see Table 1). Overall, these incentives are especially influenced by the degree of information asymmetry between the transaction partners. Taking into account the benefits of opportunism, these benefits may result from either the value S may realize by exploiting existing informational advantages in fraudulent ways or from taking advantage of B's dependence on S. This level of dependency is a result of B's switching costs due to his/her specific investments (Williamson 1985; Boehme 1999). Besides, B's dependence is also affected by the future value of S relative to the next best alternative supplier (Nooteboom 1996; Nooteboom, Berger, and Noorderhaven 1997; Boehme 1999). As counterbalancing factors the costs of fraud, exerting a negative effect on S's incentives for opportunism, have to be considered. Here, we have to take the supplier's own level of dependence into account as well. This, in turn, is influenced by S's stake in specific assets or his/her switching costs, respectively, and B's future value to S which might be lost if B due to fraudulent behavior by S breaks up the interaction or cuts back in business. This is one potential form of the reputation effect where the shadow of the future with respect to existing exchange relations between B and S becomes relevant for S's current decision to behave opportunistically. Here, reputation is seen as private information, being effective only in the dyadic relation (Shapiro 1983a). The second part of this reputation effect pertains to future sales with other (possibly new) buyers who might back down from dealings with S due to his/her bad reputation. This is assumed to be public information (Klein and Leffler 1981; Shapiro 1983b). Altogether, these 'private ordering' compensating factors (Williamson 1985) might be interpreted as hostages, pledges or guarantees in the hands of B that he/she might use as ex post sanctions to opportunistic conduct by S (Williamson 1983). In addition, there might also be formal, legally enforceable forms of monetary sanctions, such as contractual penalties or damages. This 'legal ordering' also has a negative effect on S's incentives for fraud. It depends on the level of detail of the contract, the size of the potential sanctions, the sudden occurrence of novel, unforeseen and hence not (yet) contractually covered techniques for opportunistic behavior as well as possible changes of the formal institutional framework governing the exchange relationship. But in order for the threat of private and legal sanctions to pose restrictions on S's opportunism, fraudulent conduct has to be detected as well as attributed to S (Nooteboom, Berger, and Noorderhaven 1997). Thus, the existing methods of controlling and monitoring S to reduce information asymmetries plus B's actual usage of these methods for monitoring his/her supplier also have an influence on S's incentives for opportunism.

The variable **'opportunities for opportunism'** is the second antecedent of opportunistic behavior. It refers to the feasibility of an opportunistic act to be conducted by S. This includes the supplier's abilities to even discover existing monetarily profitable options for cheating as well as his/her competencies to utilize these opportunities (Nooteboom 1996). A factor positively influencing a person's competence to behave opportunistically might be his/her level of entrepreneurial alertness as discussed by Kirzner (1973).

The determinants discussed so far present the traditional TCE description of the human nature as generally being opportunism prone. It holds that opportunism will emerge to the fullest possible extent as long as it yields a profit and one is not prevented from doing so, i.e. as long as the surrounding circumstances (incentives and opportunities) are favorable (John 1984). This negative view of economic agents was object of various forms of critique (e.g. Johanson and Mattsson 1987; Ghoshal and Moran 1996). According to Granovetter (1985), exchange relations are typically embedded in a surrounding social context which serves as an adjustment factor for opportunism. However, "a rejection of the TCE view as a whole (…) runs the risk of throwing away the baby with the bathwater" (Nooteboom 1996, p. 988). Although not ubiquitous, opportunism is nonetheless an observable fact in a lot of real life exchange relations. To account for these circumstances, Nooteboom explicitly includes into his model the **'propensity towards opportunism'** varying across actors as the third main determinant and adjustment variable of opportunistic behavior (Nooteboom 1996; see also Ghoshal

and Moran 1996; Boehme 1999). This factor extends the traditional TCE point of view with aspects that are considered important especially within the IMP interaction model, like atmosphere and relationship closeness due to personal forms of communication and trust, etc. (Hakansson 1982). It refers to the supplier's proclivity to actually employ known available and monetarily profitable opportunities for fraud. This inclination is itself affected by several other factors: First of all, the level of trust, which has been built up between the parties during interaction, reduces the supplier's propensity towards fraud. Trust can be the result of either bonds of (business) friendship and/or sympathy between buyer and supplier due to, e.g., personal forms of communication (leading to a low degree of social distance between B and S, Boehme 1999) or of jointly developed norms and institutions (Nooteboom, Berger, and Noorderhaven 1997). To the extent that a high degree of trust between the parties prevails, the resulting low propensity towards opportunism may exercise a regulative effect for S so that a feasible chance for fraud is ultimately rejected despite of its monetary net benefit. However, next to trust, S's inclination towards fraud is also affected by the pressure from competition S faces (Nooteboom 1996; Boehme 1999). As long as S is part of an industry characterized by high rates of growth and a low pressure from competition it might not be necessary for S to exploit every existing opportunity for monetary profit. Yet, this might change when competitive pressure rises, thus leading to severe negative consequences for S if he/she passes up chances for fraud. In certain situations, even the termination of business might be unavoidable when abstaining from opportunism. In these cases, the restricting influence of built-up trust on the supplier's propensity towards opportunism might be overcompensated by a positive effect from competitive pressure to actually employ known profitable chances for fraud.

To sum up, with this model focusing on 'hard' as well as on 'soft' influences, Nooteboom presents a fairly comprehensive set of factors influencing the risk of fraud in business transactions (see Table 1). Subsequently, we are going to use this model to compare the likelihood of fraud in traditional close business relationships with the procurement processes in online reverse auctions.

<table>
<tr><th>Basic Categories</th><th colspan="3">Influencing Factors</th></tr>
<tr><td rowspan="6">supplier's incentives for opportunism</td><td rowspan="3">benefits of opportunism</td><td colspan="2">value of the fraudulent transaction from exploiting information asymmetries</td></tr>
<tr><td rowspan="2">buyer's dependency</td><td>buyer's switching costs</td></tr>
<tr><td>supplier's future value for buyer</td></tr>
<tr><td rowspan="3">costs of opportunism</td><td rowspan="2">supplier's dependency</td><td>supplier's switching costs</td></tr>
<tr><td>buyer's future value for supplier</td></tr>
<tr><td colspan="2">legal ordering (e.g. level of contractual detail, etc.)</td></tr>
<tr><td colspan="3">methods of controlling and monitoring</td></tr>
<tr><td rowspan="2">supplier's opportunities for opportunism</td><td colspan="3">supplier's ability to discover profitable options for fraud</td></tr>
<tr><td colspan="3">supplier's competencies to utilize existing opportunities for fraud</td></tr>
<tr><td rowspan="3">supplier's propensity towards opportunism</td><td rowspan="2">level of trust</td><td colspan="2">social distance (inverse of friendship and sympathy)</td></tr>
<tr><td colspan="2">shared values and norms</td></tr>
<tr><td colspan="3">pressure from competition</td></tr>
</table>

Table 1: Determinants of Supplier Opportunism

Procuring Online – An Analysis of Confronting or Conforming Factors for Buyer-Supplier Relationships

Among the most frequently mentioned advantages of online reverse auctions are (1) the possibility to source globally, (2) more efficient procurement processes, (3) a higher market transparency, and (4) an intensified competition (Jap 2002; Daly and Nath 2005). With respect to these advantages, which lead to a reduction of coordination costs (Garicano and Kaplan 2001) as well as input prices, a buyer's effort in switching procurement routines towards using online reverse auctions is understandable. However, to get the full picture, one also has to examine the possibility of a higher risk of opportunistic supplier behavior which results in an increase in motivation costs that may eventually offset the mentioned savings. In order to do so, we use the theoretical framework presented above for a sequen-

tial analysis: In the first part, we investigate the effects on the determinants of opportunistic supplier behavior that result from procuring online. Thereby, we are able to theoretically identify factors within our opportunism model which are not influenced by the changing of the coordination mechanism. These variables may therefore be interpreted as context variables. In a second step, we then elaborate on these different contexts and their relevance for deciding whether a buyer's switch of the procurement method may be regarded as confronting or conforming existing business relationships.

Incentives, Opportunities, and Propensity for Opportunism in Online Reverse Auctions

Analyzing the supplier's **incentives for opportunism** in online reverse auctions in comparison to the traditional transaction situation, we find that certain characteristics change his/her benefits and costs of opportunistic behavior. Despite a huge amount of available information on the Internet, fraudulent transactions are frequently reported. The way of presenting information and products online offers reasons for this observation. Usually a product is described by information that is separated from the product itself. Although this does not change the characteristics of the product, the process of verifying product qualities becomes more difficult or even impossible. This is due to two factors: (1) The opportunity to inspect qualities has changed as the presentation of products on the Internet is limited to audio-visual illustrations. Thus, other senses cannot be addressed and verification of product qualities through smelling, feeling, and tasting is infeasible. Even visual characteristics like the size and color of a product are more difficult or even impossible to evaluate. Regarding these product characteristics, procurement in such environments is characterized as an Akerlof- instead of the former Nelson-Situation. In this respect, previous factual search qualities turn into factual experience qualities (Graefe 2003; Welling 2006): even if agents aim at evaluating those qualities prior to purchase they are factually not able to do so. (2) Furthermore, even if the situation may still be termed Nelson-Situation as inspection of goods and production facilities is factually possible ex ante, inspection costs due to global sourcing and completely different technological setups may become so high that the buyer abstains from it. For example, in the case of global sourcing it may be economically senseless to judge the qualities prior to purchase because of high travel costs. Therefore, we can expect to find goods with a high share of factual as well as calculus experience qualities on the Internet. A higher information asymmetry in e-marketplaces is the result leading to a higher optimal amount of fraud (Garicano and Kaplan 2001). Suppliers, especially those with inferior products, may therefore try to take advantage of this and strive for profits, for instance, by presenting false information. Thus, they are able to realize *valuable fraudulent transactions by exploiting these asymmetries* between the parties.

Concerning the costs of fraud, changes especially with respect to *legal ordering* and its effect on the incentives for opportunism by S have to be considered. Even though the object of the transaction is defined in detail, due to the greater level of information asymmetry (independent of product characteristics) that accompanies transactions on VM, contracts might not be as detailed as for transactions within close business relationships. Therefore, not incorporating all possible manifestations of fraud, the consequences of opportunistic behavior for S are lower, thus resulting in higher incentives to act opportunistically. This is reinforced by the legal uncertainty of Internet transactions, which occurs even for dealings between domestic partners (Petrovic et al. 2003). Besides, suppliers might come from abroad leaving it unclear which national laws are applied, which in turn discloses possibilities not to be punished for fraud (Johnson and Post 1996). Another effect concerning S's costs of fraud might be revealed by taking the *methods of controlling and monitoring* into account. On the Internet, the supplier may have a higher possibility for hiding former fraudulent transactions. Due to opportunities of changing one's virtual identity, a history of opportunistic conduct might be more difficult to detect in online reverse auctions than outside the electronic world, a fact that is important for the effectiveness of the reputation mechanism. Yet, if suppliers interested in participating in the auction have to pass a qualification procedure in advance, then this problem is attenuated. All in all, we predict that as a result of changing the coordination mechanism incentives for opportunistic supplier behavior rise.

As a second factor, we also have to take into account the alterations to the **supplier's opportunities for opportunism**. With respect to this factor, we propose an increased chance of discovering profitable opportunities for fraud in online reverse auctions. This is due to the novelty of this method to conduct transactions, thus leading to a larger room for applying entrepreneurial alertness compared to traditional business relationships. In other words: As alertness is the factor breeding innovations, a supplier's *given talent to find profitable options for fraud* can be applied more successfully in circumstances that are new and undergo rapid changes (Rese 2000).

Finally, there are some changes reflecting the supplier's **propensity towards opportunism**. We suggest that due to the different exchange situation on VM the supplier's inclination to commit acts of opportunism given that such behavior is monetarily profitable increases. This, in turn, leads to a higher possibility of fraud by S. Firstly, the price-based nature of online reverse auctions promotes *intensity of competition*. Besides, the supplier's perception of the competitive surroundings is sharpened compared to the traditional relationship being usually based on long-term considerations. Therefore, S's perceived pressure from competition to exploit any existing monetarily profitable opportunity for opportunism is higher. Secondly, the *social distance* between the transaction partners on the Internet increases as bonds of close personal or business friendship and sympathy in an auction are hardly built up due to impersonal forms of communication. Additionally, whereas in business relationships the involved actors get to know the values of the respective partner and both parties perhaps jointly develop *shared values* in the course of the interaction, in a more anonymous VM there is less knowledge about these values. Consequently, *trust* will be lower in online reverse auctions, thus accounting for the straightforward effect with respect to the supplier's inclination towards fraud.

In summary, we suggest that the usage of online reverse auctions instead of procuring within a close business relationship in particular leads to two effects with respect to favoring opportunistic supplier behavior: (1) a higher degree of information asymmetry due to conducting transactions on the Internet which increases the supplier's incentives as well as the supplier's opportunities for opportunism and (2) a higher propensity towards opportunism that results from a lower relationship closeness as well as an increased intensity of competition among suppliers.

Taking the Context into Account

So far, the reader might have gained the impression that a buyer's switching of his/her procurement method to profit from the advantages of sourcing via online reverse auctions is inevitably connected with an increased risk of supplier opportunism. Thus, savings in coordination costs and product prices may ultimately be (over-)compensated by higher motivation costs thereby rendering the option of confronting traditional business relationships by new forms of coordination comparatively unattractive. If, however, the adverse effects on the antecedents of opportunistic behavior depicted above will in fact lead to a higher amount of fraudulent transactions by S finally depends on the parameter values of those factors within our opportunism model which have not been addresses so far: the buyer's as well as the supplier's level of dependency on the respective partner. As their value is independent of the applied type of procurement method, these variables may be regarded as context factors. Two constellations can be distinguished that lead to different conclusions regarding the favorability of a substitution of existing relationships for online reverse auctions.

Imagine a context characterized at the outset by a low degree of buyer dependency and/or a high level of supplier dependency due to e.g. a high amount of specific investments incurred by the supplier or a high future value of the buyer. In these constellations, behaving opportunistically will lead to severe negative consequences for S. Thus, incentives for opportunistic supplier behavior are very low. Here, a buyer's switch to reverse auctions on the Internet, although increasing the supplier's incentives for and his/her propensity towards opportunism may not be followed by fraudulent behavior in the end. The reason is that S's increased incentives for acting opportunistically, which are based on rising information asymmetries between the parties, may still be overcompensated by the large amount at stake due to his/her dependence, in this sense functioning as a hostage in the hands of B. Thus, despite an increased inclination towards opportunism the supplier is likely to abstain from fraud as such behavior is unprofitable based on monetary considerations. For these contexts an overall shift towards more usage of market based forms of coordination may be predicted, hence rendering close business relationships less important as has been forwarded by Malone, Yates, and Benjamin (1987). Here, existing relationships are probably confronted by online reverse auctions.

However, there are other circumstances conceivable where a supplier faces relatively high incentives for opportunism caused by high degrees of buyer dependency and/or a negligible extent of their own dependency. In these situations, S may be restricted in his/her behavior only through a low propensity towards fraud as a result of e.g. a high level of trust between the parties, which has been built up over time. If in order to achieve savings in coordination costs as well as input prices in these contexts the buyer turns away from close business relationships as mechanisms to coordinate exchange, this may result in severe negative consequences. The supplier may now be pushed over the edge since S's inclination to act opportunistically is increased in online reverse auctions. Ultimately, the higher

amount of fraudulent transactions might offset B's cost savings. Thus, in these contexts a shift of modes of coordination towards auctions is not advisable. Instead, the role of relational elements for mitigating opportunism by trust and a positive transaction atmosphere is unbowed (Hartmann, Ritter, and Gemünden 2002; Oppel, Lingenfelder, and Gemünden 2002) acting as a conforming factor for existing buyer-supplier relationships.

Empirical Evidence – The Case of the Private Label Food Industry

Using a case study approach based on a literature review as well as interviews with practitioners, our theoretically derived findings can be backed by empirical evidence. We review the factors in the opportunism model in a case study on the procurement processes for own or PL products in the food industry. More than six years ago, worldwide retail companies started founding joint b-to-b market-places such as the nowadays merged Global Net Xchange (GNX) and Worldwide Retail Exchange (WWRE). In 2000 those retailers started contracting their suppliers by using reverse auctions on the Internet, in some cases via collaborative sourcing to assure larger quantities. An extensive analysis of articles published from 2000 to 2006 in *Lebensmittel Zeitung*, Germany's leading food-retailing journal, revealed the above mentioned positive effects of reverse auctions for retailers (global sourcing, efficient procurement processes, higher market transparency, and intensified competition).

As a consequence, auctions for sourcing PL food and non-food products have become very popular. However, taking a closer look reveals that the intensity of using online reverse auctions for the procurement of PL products is not homogenous. This fact can be justified by the retailers' specific PL strategy. Two general directions can be distinguished as the ends of a continuum: (1) The 'classical' approach, comprising the first, second, and third generations (Burt 2000) of private labeling by retailers, is mainly cost-driven: using PLs, very often 'no-names' or so called 'generics', as a down-market alternative to (manufacturer) branded products. In Germany, Tengelmann has introduced 'A&P', 'Alpa', and 'DaMarco' as such alternatives; REWE is marketing 'Ja' and 'Salto' in the classical way. However, due to changed market circumstances a second alternative has become more and more popular in recent years: (2) Starting in the U.K. and later adopted in Germany, in the fourth generation of retailers' branding strategy, most retailers nowadays also position some PLs up-market as a quality and sometimes price-premium alternative to manufacturer brands. An Example of the U.K. is 'Tesco's Finest' or Sainsbury's 'Taste the difference'. In Germany, Tengelmann has introduced 'Naturkind' in 1986, 'BioBio' in 2002 and 'Viva Vital' in 2005, while REWE has been using a family-brand called 'Füllhorn' since 1988. As an essential element of the positioning strategy those brands are enhanced with ecological characteristics and associations.

Taking these differences in strategy into account, the above identified context factors influencing the risk of supplier opportunism take different parameter values, ultimately affecting the advantageous-ness of a retailer's shift from business relationships to online reverse auctions. For classical PL products, the context is characterized by a low degree of buyer dependency and/or a high level of supplier dependency, especially due to a high future value of the buyer resulting from the large quantities procured. Thus, at the outset, the supplier's incentives for fraud are very low. Behaving opportunistically will lead to severe negative consequences, since he/she will not get the opportunity to conduct future transactions with the respective retailer. A retailer's shift to online reverse auctions has to be regarded as confronting former relationship without running the danger of fraudulent trans-actions. Since those PL strategies are still the most frequent form of a retailer's brand management, the widespread use of auctions for the procurement of retailers which can be observed is understand-able. In Germany, especially REWE is procuring via online reverse auctions for 'Ja' and 'Salto'.

In contrast, REWE abstains from using online reverse auctions for the procurement of 'Füllhorn' products. This can be explained by the different context. Firstly, for REWE the level of net dependency is higher. Due to the positioning of 'Füllhorn' as a premium label with ecological associations, the characteristics of the products are different compared to the classical PL case: On the one hand, these products have to be of a comparatively higher quality. On the other hand, the supplier's compe-tencies as well as the attributes of the production process gain importance. Suppliers do not only have to provide high quality in large volumes, but have to guarantee a specific organic production process using valuable natural input factors. Thus, compared to conventional PL products, REWE's supply base is likely to be limited accounting for a higher degree of dependence on the side of the buyer. Secondly, compared to 'standard' product qualities like size or color, sophisticated qualities such as

organic origin are harder or even impossible to verify. The procurement situation therefore has to be characterized as an Akerlof-Situation with a high degree of information asymmetry between the parties. In summary, in the case of 'Füllhorn' products, the supplier's incentives for opportunistic behavior are relatively high. This, in turn, leads to a higher importance of trust factors mitigating the risk of fraud by reducing the supplier's propensity towards opportunism. Consequently, REWE abstains from using auctions and/or chooses different forms of electronic marketplaces that promote relational elements between the transaction partners thereby conforming to existing relationships.

Managerial Impact and Future Research

In our paper, we find that with respect to the favorability of a buyer's intended switch of procurement methods – from close business relationships to online reverse auctions – two distinct constellations have to be distinguished. In contexts where savings in coordination as well as input costs due to sourcing electronically are not offset by a rise in motivation costs as the risk of opportunistic supplier behavior is not likely to be increased by such proceeding, the utilization of auction mechanisms on the Internet is advisable. Here, the total effect will probably be a positive one. However, in situations originally characterized by a high degree of buyer dependency and/or independent suppliers the case looks completely different. Under such circumstances, changing the coordination mechanism towards online reverse auctions may lead to severe negative consequences for a buyer. This is due to the fact that relationship closeness no longer functions as a regulative factor for opportunism since it is comparatively difficult to build up in auction environments. Thus, the supplier's inclination towards behaving opportunistically is higher which, taking into account the unfavorable alterations in terms of existing incentives as well as opportunities for fraud, may push him/her over the edge. Reductions in coordination expenses as well as in production costs therefore will probably be compensated by increased motivation costs: This might result in a negative total effect that renders the confronting of existing relationships in such a way disadvantageous. In these contexts, the buyer's strategic options present themselves as follows: (1) He/she completely refrains from changing the procurement process and sticks to his/her traditional close business relationships like in the case of REWE's sourcing for 'Füllhorn'. Or (2) if he/she strives for cost savings by purchasing electronically, alternative types of e-marketplaces such as electronic exchange mechanisms or online pinboards should be applied that promote relational elements between the parties to a larger extent, thereby reducing the supplier's inclination to act fraudulently. This is the strategy pursued by Tengelmann. In this way, our analysis although being based on a different theoretical approach fairly closely resembles as well as complements the results of Hartmann, Ritter, and Gemünden (2002) concerning the importance of thoughtfully balancing the choice of the utilized b-to-b e-commerce platform with the characteristics of the purchase context at hand for achieving optimum cost savings. By this, the paper delivers valuable insights for the managerial practice of handling procurement processes. With the presented opportunism model, buying agents are enabled to forecast the consequences of using different mechanisms for coordinating their sourcing efforts. Guided by the factors that are described in the model, they can transfer the research findings to their individual decision situation and act accordingly.

Regarding future research, besides the need for a large scale empirical test of our derived results, for getting a full picture it is necessary to also analyze the implementation of electronic marketplaces from the perspective of suppliers as we only focused on the buyer's viewpoint. Especially with respect to the objectives of suppliers employing VM for transacting with their customers differences to our findings are likely. However, such an investigation lies beyond the scope of this present paper.

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