EXPLORING THE POTENTIAL OF SOCIAL MEDIA IN SUPPLIER RELATIONSHIP MANAGEMENT

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Abstract

The use of social media in business communication has raised a lot of interest especially from the marketing perspective. In terms of purchasing and supplier relationship management, however, research interest has been minimal so far. The increasing use of social media in marketing will eventually mean that social media is relevant also from the purchasing perspective. The purpose of the present study is to explore the potential for social media in supplier relationship management. Moreover, we wish to describe what kind of communication is especially suitable for social media in purchasing context. Based on existing literature on supplier relationships and social media, especially within business-to-business context, we develop an analytical framework which enables the examination of the potential for the use of social media in supplier relationship management empirically through a qualitative single case study. The present paper contributes to the existing knowledge on supplier relationship management and industrial purchasing.

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INTRODUCTION

Communication is an integral part of managing buyer-supplier relationships. The importance of personal interaction and face-to-face communication in organizational relationships has been acknowledged for a long time in the existing literature (see e.g. Granovetter, 1985, Ford et al., 1986, Halinen & Törnroos, 1998). Even today, efficient communication can be considered as one of the key factors in successful relationship in supply chains (Ambrose et al. 2010). Communication of course varies across different kinds of relationships. Supplier relationship management literature has emphasized the need to carefully plan and manage the relationships with different kinds of suppliers (Moeller et al, 2006). Technology has provided a lot of different means to communicate between individuals and organizations and within industrial purchasing, already since the adoption of EDI systems, these kinds of communication systems have been employed quite a lot. Current fast development of ICT technologies is creating more and more new communication methods that are speeding up routine tasks and enriching the information flows (Fiorito et al. 2010). One stream of such methods is the social media which is already an established mean for personal communication and marketing communication in consumer markets, but also more and more so in industrial markets (Michaelidou et al. 2011).

The use of social media in business communication has raised a lot of interest especially from the marketing perspective. In terms of purchasing and supplier relationship management, however, research interest has been minimal so far. However, the increasing use of social media in marketing will eventually mean that social media is relevant also from the purchasing perspective also as sellers start to introduce these as part of their communication strategy. Effectively used social media encourages participants to share ideas and participate in development projects more intensively than before. (Bughin et al. 2009). Such activities are crucial in many supplier relationships. In spite of the potential usage of social media in innovation purposes, especially in business-to-business context, the subject has not received much attention among the researchers (Kärkkäinen et al. 2010).

The purpose of the present study is to explore the potential for social media in supplier relationships management. To do this, we examine the characteristics of communication in supplier relationship management and identify the special features of social media to analyze the applicability of social media in this setting. Although not extensively used in practice, based on previous literature (Bernoff & Li 2008; Mangold & Faulds 2009) in business-to-business marketing context, the usage of social media enables closer connection to customers and also connection between customer to customer can be established via social media. Thus, our intention is to shed some light on applicability of social media in the industrial purchasing context. Due to the newness of the phenomenon, we have adopted an exploratory approach in our study.

Based on existing literature on supplier relationships in general and communication within them in particular, we develop an understanding of the different forms of supplier relationships and the typical features of the communication within these. Combining this to the literature on social media and its special features, especially within business-to-business context, we develop an analytical framework which enables us to empirically examine the potential for using social media in supplier relationship management. The present paper aims to contribute to the existing knowledge on supplier relationship management and industrial purchasing.
The empirical research method is a qualitative single case study. To select an appropriate case for the study, we discovered that it was difficult to find a company that was widely using social media as a part of purchasing and supplier relationship management. As our aim was to explore the potential for social media in this setting, we instead aimed at finding a buyer company that seemed to have an interest towards new communication media and had mature enough purchasing and sourcing processes in place. We assumed that such a company could be among the first ones to adopt social media communication as a part of their supplier relationship management. As a result of this, we identified a case company that manufactures high technology products. On the basis of preliminary discussions, the case company showed interest in using new innovative solutions such as social media in general. The company has a globally scattered wide supplier database that consists of different kinds supplier relationships which can be considered to be typical in selected business field. Case company’s industry is known as a fast developing and technologically high advanced industry. Background check revealed that case company was already using in some extent social media in internal communication and together with customers. In addition case company was seen as good example of global actor in business-to-business sector with globally scattered supplier network. Global operations were seen to have interesting communication related challenges that could be studied more deeply in a relation to social media. The empirical data was mainly collected via semi-structured interviews of representatives of purchasing function within the selected part of the case company.

The structure of the paper is as follows. In the next section, we first identify the different types of supplier relationships and examine the different aspects of communication related to each of these. This is followed by a section discussing social media as a communication tool within business-to-business setting with special attention to the different types of supplier relationships identified. Thereafter, we move on the empirical part of the study and present the analysis exploring the potential for social media in the chosen buyer company. Finally, we present our conclusions and propose our contribution to industrial purchasing research.

SUPPLIER RELATIONSHIPS AND THE ROLE OF COMMUNICATION

Management of supplier relationships has gained a lot of research interest for a quite a long time and one of the key elements of our current understanding is that there exist a great deal of diversity in supplier relationships, and these should be managed with this in mind (Carr & Pearson 1999; Moeller et al, 2006; Holmen et al. 2007). The common shift in recent decades has been from transactional exchange towards collaborative exchange. Single transactional actions have been partly replaced with long-term relationships where the added value is gained in various ways depending on supplier’s capabilities (Araujo et al. 1999; Day 2000).

One perspective to the diversity of supplier relationships is to examine these from varying resource interfaces (Araujo et al. 1999). Accordingly, resource interfaces are the technical interdependencies that will connect when supplier and buyer are in an exchange relationship. The main differences between the four major interfaces can be found from the costs, benefits, productivity and from innovativeness. The complexity of interdependencies is directly related to the complexity of the whole relationship. The simplest form of interface is standardized interface. In this option exchanged products are standardized and suppliers and buyers are not required to familiarize with each other’s concepts, instead homogeneous interfaces are used for several different customers. A slightly more complex interface forms when a buyer organization is requiring customized products from the supplier. In this case the buyer’s and supplier’s
resources need to be adapted in some level. The supplier is requiring manufacturing instructions from the buyer or alternatively the buyer describes the characteristics that should be included to the final form of the desired product. In the third interface option the buyer organization’s effects on supplier’s actions are stronger than in standardized and in specified interface. In this translation interface the supplier usually has the opportunity to decide what solution could be the best to execute the customer’s request. In the fourth interface, the conducted solutions are developed in cooperation between the buyer and supplier organization. This interface is the most complex interface together with the joint set of resources, common information sharing and joint-development. It can also be called joint learning. (Araujo et al. 1999).

Communication can be seen as a one of the most important behavioral aspects in business context (Large 2005: 28). In a business-to-business context, efficient communication requires interaction, information sharing and understanding of common goals. Timely and frequent communication can result in efficient actions between organizations in all relationship interfaces. Inefficient communication may cause conflicting behaviors which leads to misunderstandings and dissatisfaction in every interface (Etgar 1976; Su et al. 2008). Next we will discuss different communication related difficulties and cornerstones that were gathered from existing literature, especially in supplier relationship management. Communication has been categorized into four separate sections. According to Mohr and Nevin (1990), communication can be reviewed from four different perspectives: content, communication tool, frequency and feedback. We will use these categories to examine the characteristics of communication in supplier relationships in general and in the four categories of resource interfaces by Araujo et al. (1999) in particular.

With respect to content, the purpose of the interaction with the suppliers varies. A side from planning, forecasting, order processing and rescheduling the reason for communication can be for example contractual issues or supplier development. In practice this may mean supplier evaluation, feedback sharing based on supplier performance, rising of expectations, education and training (Krause & Ellram 1997). In order to achieve and maintain cooperative supplier relationships it is essential to communicate honestly the unfavorable details as well. For example in standardized interface a buyer has to be able to trust to agreed delivery schedules provided by a supplier in ongoing business relationship. Unforeseen events such as suppliers’ sudden manufacturing difficulties or demand change from the buyer side needs to be communicated effectively in order to maintain an efficient supply chain (Selnes 1998). Suppliers cannot fulfill the expectations if they are not aware of different expectations and vice versa (Krause & Ellram 1997). Sanders et al. (2011) highlighted especially the importance of open communication from buyer organization towards suppliers. Performance feedback, information sharing and buyer organizations’ financial investments to shared IT solutions were seen as a factors that increased the communication’s openness which increases the competitiveness for both parties. Financial investments to communication tools are considered to be typical in more complex interfaces.

With respect to communication tools or ways to communicate the importance of face-to-face meetings in global supplier relationships is clear in the literature on business relationships. Frequent face-to-face meetings are considered to be beneficial for the buyer organization in long term (Carr & Pearson 1999). Globally dispersed operations are setting its own restrictions to regular face-to-face meetings (Ambrose et al. 2010). Rare opportunities for meetings cause stronger significance and importance to communication that is conducted by using different kind of communication tools. For example teleconferences are used as a replacement for face-to-face
meetings. It is essential for the communication managers to identify which media should be used and when. The chosen communication tool should depend upon the sent message. In addition the importance of training should not be underestimated. Purchasing managers as well as the employees need to know how to use different communication tools in order to work effectively and productively (Larson & Kulchitsky 2000).

Communication tools are constantly changing along with the technical development. Standardized electronic documents, such as orders, bills and order confirmations, can be transferred electronically between business partners without human involvement. Traditional EDI messages are considered to minimize the possibility for human errors. (Fiorito et al. 2010; Larson & Kulchitsky 2000.) In the beginning of the new millennium EDI messages were the most used communication tools of the shared IT solutions together with Extranet (Rys sel et al. 2004). In standardized interfaces the actual purchases are conducted with the simple administrative operations (Araujo et al. 1999). In practice this would probably mean for example EDI-messages in a continuous relationship. Alternatively orders can be processed for example via email, but basically EDI messages are providing a more trustful option for information exchange compared to email usage in every interface. In addition EDI-messages can be considered to decrease order processing and inventory related costs (Rys sel et al. 2004).

In specified interfaces some level of system adaptations are required. The buyer organization will need to have at least limited access to suppliers’ resources in order to be able to conduct the production planning (Araujo et al. 1999). In this stage an Extranet becomes handy. An Extranet can be used for blueprints and other kind of essential information sharing. The need for system integration is equal in translation interfaces where planned adaptations can be shared via Extranet as well. Basically an Extranet could be used also in standardized interfaces. For example an extranet can provide a place for product specification lists and order tracking (Anandarajan et al. 1998). In interactive interfaces an Extranet can be seen as a place where joint product development related documents can be shared and stored. Usage of Extranet can seem to decrease operational and cooperation related costs (Rys sel et al. 2004).

With respect to third perspective of communication, frequency of communication, Large (2005) argues that communication frequency is affecting to the relationship quality and this way indirectly also to the whole supply chain performance. According to Morris, et al. (1998) frequent communication between the participants can be considered to be one of the key factors associated with the successful relationships that last over time in market relationships. Confidence among the business partners can be gained via frequent communication, and when the confidence is gained purchasers can expect sympathy and help in problematic situations. In some way maybe Toyota and Honda are acting precisely according to suggested behavior methods. Both companies are aiming to keep their suppliers close by on a daily basis, although the top level information is distinct from the operational data and communication in general (Liker & Choi 2004). Large (2005) highlights that the sharing of strategic information can also be seen as a factor that improves the relationship quality and in this way also the suppliers management performance. In that perspective Honda’s and Toyota’s careful strategic level information sharing can be considered valuable. The communication frequency can be seen as a way to improve relationship quality especially in standardize interface. In more complex interfaces the importance of strategic information sharing as a way to improve relationship
quality becomes more relevant. Of course, frequent communication can also be related to difficulties in the relationship and even interpreted as a sign of mistrust.

Concerning the fourth perspective to communication, feedback or bi-directionality refers to inter-organizational communication (Mohr & Nevin 1990). Two-way communication is considered to be essential in successful supplier relationship. When any level of product development is involved with supplier relationships the number of involved employees increases on both sides. The number of cross-organizational teams and the level of management involvement tend to increase together with the depth of the interface (Krause & Ellram 1997). Different kinds of internal IT solutions, such as automation solutions, intranet and enterprise resource planning are planned to improve the information flow inside the company and increase the efficiency (Ryssel et al. 2004). The cultural differences should always be acknowledged when researching cross-organizational communication (Ferraro 1998).

On the basis of the literature review, we present the characteristics of communication in different interfaces in Table 1. The nature of the communication can be seen as almost equally important in all kinds of supplier relationships. A polite way to communicate will increase the possibility that the returned communication will be polite as well. The importance of trust and exact data cannot be underestimated in any relationship. Mutual trust needs to be reached and maintained in order to conduct business smoothly. In standardized interfaces it might mean delivery accuracy. Closely related to this can be mentioned the importance of open communication. In interactive interfaces and in high involvement relationships in general the trust is connected to security and trade secrets. Great damage can happen if the supplier is discovered to be untruthful in joint product development projects. Nevertheless the importance of trust should not be underrated in arms-length relationships either. As whereas information overload can be seen as a factor that comes up mainly in close cooperation.

Table 1. Characteristics of communication in different interfaces.

<table>
<thead>
<tr>
<th>Product characteristics</th>
<th>Standardized interface</th>
<th>Specified interface</th>
<th>Translation interface</th>
<th>Interactive interface</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standardized products</td>
<td>Supplier manufactures according to buyer organization instructions</td>
<td>Supplier manufactures according to own instructions based on the buyer organization’s request</td>
<td>Joint product development</td>
</tr>
<tr>
<td>Content</td>
<td>Nature of communication, Importance of trust, clarity and openness</td>
<td>Nature of communication, Importance of trust, clarity, openness and consistent content</td>
<td>Nature of communication, Importance of trust, clarity and openness, Information richness, consistent content</td>
<td>Nature of communication, importance of trust, clarity and openness, information richness – overload</td>
</tr>
<tr>
<td>Communication tools</td>
<td>Importance of f2f meetings and the difficulty of communication tools selection and training remains minor problems</td>
<td>Importance of f2f meetings increase, The difficulty of communication tools selection and training becomes more problematic</td>
<td>Importance of f2f meetings increase, The difficulty of communication tools selection and training becomes more problematic</td>
<td>Importance of f2f meetings increase, The difficulty of communication tools selection and training is problematic</td>
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SOCIAL MEDIA AS A COMMUNICATION TOOL IN BUSINESS TO BUSINESS CONTEXT

In a business context the use of an unknown communication channel that is hard to control is considered to be risky but more and more considered as one that is worth of taking. Customers are discussing about the products and services and reviewing them in any case. Even though usage of social applications requires flexibility and fast reaction time from the company, it enables embracing the customer and his/her ideas, which is far more important than the possible technical implementation challenges or internal attitude problems (Bernoff & Li 2008). When shifting the focus towards a more general level in a business-to-business context and to supplier relationship management it can be noted that besides customer relationship management social media can be utilized intra organizationally and inter-organizationally in multiple ways, for example in learning, training, innovation purposes and information sharing.

Kane et al. (2009) describe the effects that social media tools can and will have to organizational knowledge sharing and to learning in general. With the help of social media tools the way of training the staff will probably move towards a more interactive mode, despite of the geographical distance. Social media can be seen as a tool that fosters cooperation and collaboration, factors that are both contributing to the learning experience. Basically it provides an avenue for social learning where information is shared and learned among the attendees.

Innovation processes are often involving experts from many fields inside and outside the organization. Social media tools are enabling a digital workspace for designers, developers and other participants. The final end customer can also be integrated to very early stage of the planning project if desired. In this way for example unwanted designs and unnecessary features can be deleted from the planning desktop straight away based on the end customer comments. Involvement should reduce the risk of failure (Ribiere & Tuggle 2010). External participants can be included to the innovation process. This can be possible for example via crowd sourcing. It is a way to gain new ideas with relatively low costs from large groups of people.

Traditional ways to create information need to be adjusted when a company starts to use social media channels for information sharing. Traditionally information has been gathered to different data bases and some kind of outcome (for example a report) has been prepared based on the available data. When using social media extensions employees are able to participate to information creating process in different phases. In its best it may cause conflicts and create alternative solutions to current topics. This way it can be ensured that the final solution is really the best available and alternative options are discussed as well (Vuori & Okkonen 2012).
creation of new information does not need to be limited to internal participants; actors outside
the organization can also be involved in the process if wanted. Basically learning, training, etc.
are all actions where the external party such as a supplier can be involved in the process as well
if so desired.

Companies that have gained benefits from the usage of social media are integrating social media
via internal systems but are also using it as a channel that enables stronger linking with the
suppliers and customers (Bughin et al. 2009). Meaning that more benefits can be attained when
social media is used with internal and also with external connections. In addition the size of the
company’s business and revenue range are always facts that are good to be acknowledged when
studying business related topics. Business-to-business organization and companies with revenues
of more than $1 billion are reported to gain benefits from the usage of social media more easily
than small and medium sized companies as well as the consumer markets orientated companies
(Bughin et al. 2009).

Constantinides and Fountain (2008) have categorized social media channels to five separate
groups. Blogs are the earliest form of social media and also the fastest growing category of social
media applications. Users of social networking sites can create their own personal profile. The
service is enabling connecting, communication and personal exchange between the users. Companies are using social networks for marketing research and brand building purposes. Probably the most famous examples of social networks are Facebook and MySpace. The most famous examples of content communities are probably Wikipedia and YouTube.

Considering supplier relationships management, when moving from standardized interfaces to
specified interfaces listed benefits and risks of standardized interface are not vanishing, instead
they are supposed to stick along to more complex interfaces. This due to the presumption that the
actual relationships do not change, they just adjust to a more complex interface. The same
applies to translation and interactive interface categories as well. Any specific risk that could be
linked to the interactive interface was not identified. In standardized interfaces, as a risk were
identified different preconditions, possible conflicts with different IT systems and participants
resistance towards social media tools in the implementation stage. In specified interfaces as a
risk is mentioned gaining of critical user mass. In translation interfaces as a risk can be stated
that a mix of social media tools is considered to be the most efficient way to use social media,
which is causing several implementation costs. In interactive interfaces as a risk can be seen all
the points that were listed in relation to less complex interfaces.

It can be argued that a great benefit of social media usage in supplier relationships is that more
benefits can be attained both internally as well as externally. It increases the communication
frequency which decreases the reaction times to market changes that can be seen as a factor that
improves the relationship quality. From a content point of view, in relation to standardized
interfaces, can be mentioned the opportunity to store information for later reuse. In specified
interfaces, as a content related benefit, more intensive involvement to information sharing and
creation of information can be mentioned. Communication despite differing time zones and
geographical distances can be identified as a benefit in translation interfaces. Besides the above
mentioned benefits in interactive interfaces, the usage of social media as a platform for joint new
product development can also be seen as a benefit. In addition based on the reviewed literature it
can be stated that the usage of social media decreases the possibility for information overload compared to traditional email usage.

**RESEARCH METHODS**

The research method of the present study is a qualitative research and it is being implemented through single case study. Myers (2009) recommends qualitative research methods when the aim is to analyze a subject profoundly. In this study and in qualitative research in general the aim is rather to discover reality than to verify existing statements. The single case study design was selected due to the future oriented and unexamined nature of the phenomenon. Also, as our intention was to explore the potential for the use of social media, it was considered, that a single case study would enable a closer examination of the issue within a single context and would thus enable the broad perspective to the phenomenon. The process of finding a suitable case was begun by trying to identify a company that would already actively use social media in managing its supply base and supplier relationships. However, it was soon discovered that such companies were difficult to find. As the purpose of the present study was only to explore the potential for social media in supplier relationships management, it was determined, that it was not necessary to study a case with extensive use of social media in purchasing, but more essential was to find a case that would potentially develop its supply base management so that social media would be intertwined in it. This would mean finding a case company with enough advanced purchasing systems and innovative approach in developing its supply management practices and use of technology in it. As a result of this, we identified a case company that manufactures high technology products.

The case company was selected due to the presumption of company’s interest to use new innovative solutions such as social media in general. The company had a globally scattered wide supplier database that consists of different kind of interfaces which can be considered to be typical in selected business field. Case company’s industry is known as a fast developing and technologically high advanced industry. Background check revealed that case company was already using in some extent social media in internal communication and together with customers. In addition case company was seen as good example of global business to business sector actor that has existing customer relationships world-wide but especially interesting from the perspective of the present study was that the case company had a globally scattered supplier network. Global operations were seen to have interesting communication related challenges that could be studied more deeply in a relation to social media.

In this study empirical data was mainly collected via four semi-structured interviews that lasted from 40 to 70 minutes. The data was collected in 2012. The aim was to achieve a deeper understanding about the current state of communication with the suppliers in the case company via theme interviews. In addition the company’s websites were used and some email exchange was made for checking of facts. Interview questions were drafted based on the theoretical framework to cover different types of supplier interfaces and different aspects of communication within them. Also, the potential for the social media was covered in the interviews in terms of asking questions related to the current and potential personal and professional use of social media within the company and in sourcing in particular.
Interviewees were selected based on their personal experience with suppliers and purchasing activities. All interviewees had been working several years in the case company and everyone had been interacting with the company’s suppliers at least three years. The interviewed buyers were selected from the preproduction site in order to include various kinds of supplier interfaces to empirical analysis. As a presumption was that suppliers are involved to product development processes in order to reach innovative solutions, better production qualities and lower production costs in preproduction side and that not all interfaces are standardized. Combining factor to all interviewees was that they were in some way connected to suppliers in their work. Interviewees were informed beforehand that the interviews were made confidentially and anonymously. Interviewees had also the opportunity to refuse from the interviews but they all agreed to be interviewed. Interviews were done in the case organization by interviewing beforehand selected employees. The duration of the interviews varied from less than an hour to more than one hour based on interviewees’ schedules and the willingness to speak. Interview material was transcribed from oral speech to written text before the analyzing stage.

In the actual analysis stage the data was processed by handling the data according to the theoretical themes that were discussed in theory section. The main level of analysis was on relationship interface level along the study, but the social media related issues were discussed in more general level due to the limited examples of use of social media in current supplier relationship management.

**EMPIRICAL STUDY**

The case company is a major multinational actor in the telecommunication infrastructure service field. The company’s headquarter is located in Finland but the manufacturing sites, as well as the R&D are scattered around the globe. Altogether the company employs about 100 000 people. The case company has a large and globally scattered supplier database and the role of sourcing is integral for the company’s business. The supplier management systems are highly developed and systematic. The case company’s supplier pool is divided internally based on different product categories. The empirical material indicates that communication methods and habits are varying between the product categories and also inside the product categories. All interviewed buyers were purchasing different product categories.

**Identified relationship interfaces**

The empirical research material reveals that the case company’s suppliers are located all over the world despite the product category field and that the focus might slightly shift from the old European suppliers towards native Asian suppliers that are at least imagined to be cheaper. This might have led to a slow rundown of some relationships. In addition, the supplier database is varying when supplier companies are merging. The chronological length of the supplier relationship was described to be rather long term in general. The long duration of the relationship and co-operation was seen as a factor that brought actors closer together.

The supplier pool of the case company consists of all of the four different interfaces as suggested in the category by Araujo et. al (1999). This was considered to be beneficial and desired state in the theoretical section of the study. In all product categories the buyers estimated that they were most actively working with more or less with six to ten suppliers. The actual supplier base was wider in all categories. The suppliers that were not included to most actively working with list can be considered to be handled via standardized interface where the level of communication
remains in minimum. However, from the data, we also identified a group of suppliers not recognizable as being clearly a part of any of the four interface categories, the non-active relationships. Non-active interface with suppliers is describing the mutual interface that basically does not exist, but would if the relationship would be activated. Based on interviews suppliers that do not have currently ongoing business or contract with the case company but who would like to make business with the case company were actively trying to contact the case company’s representatives. On the other hand also buyer organization was seeking for new suppliers occasionally.

“… when our requirements are getting clearer more options are available from the supplier pool. Then we just need to focus on that we know that 10 suppliers are for example manufacturing this, and let’s contact for example those three and start discuss… then the seven resting suppliers will try to do something all the time …”

(Technical manager)

Communication in supplier relationships

From the buyers’ perspective, the role of the communication is to sustain and support daily tasks in every interface. In practice, the content of communication is constructed from the order follow up activities, pull in and push out requests, forecasting, scheduling and order creation. This means basically all kind of activities that can be connected to the purchasing process. From the buyers’ perspective the aim of the communication is to ensure that the correct version of the product arrives at the right time to the warehouse. The buyer is seen as a link that enables smooth operations and solves all kind of problems that are slowing or preventing the supply chain operations now or later on.

“.. I see myself as a link between the supplier and internal actors; I know where we are going and where we will end up.” (Buyer A)

Based on the interviews, buyers were passing internal information to suppliers per request if that was considered to safe. However, to suppliers that did not have the key supplier status or were not case company’s supplier at all currently only the minimum quantity of information was shared. Whereas when working with the key suppliers more user context related information was shared as well. This can considered to by typical in complex interfaces. In interactive interface suppliers familiarization to user context enables more radical innovations suggestions (Araujo et al. 1999).

Suppliers are many times trying to find out more information that what they need to know. … It might be that some suppliers that are not strategically important or significant to us want to know every planner’s name and project’s names; in this case I might just say that I do not know. With important suppliers we might give a bit more structured information. (Buyer C)

Buyers were questioned about the technical characteristics of the products. Technical questions were considered to be occasional especially in program purchasing. Buyers tend to direct the technical questions to the people that were in charge of issues related to technical details. Used communication habits were varying.

“I do not see involvement as a necessity.” (Buyer B)
In interactive interface, where the supplier has wide amount of information about the buyer organization, the sudden increase or decrease on demand is most likely coming as less surprisingly than in less complex interfaces. Unreliable forecasting can considered to be especially difficult in specified interface as well as in translation interface where the products are manufactured based on case company’s specs or instructions but information about case company’s actions is limited.

The empirical material indicates that the most commonly used communication tools in case company were email and phone. Phone was considered to be a good way to communicate if something was needed to take care of or be solved quickly. Email, probably the most common way to keep contact was considered to be especially good way to communicate because it leaves the evidence about the communication that has been made. On the other hand, email was considered to be an unclear communication tool because the messages can be interpreted in many ways and the nature of email was described to be “ping pong”. Nevertheless, due the evidence issue, often the small things that could be easy to take care of by phone, where taken care of by email, or supplier was requested to send confirmation about the issue by email after the phone conversation in order to safe electronic evidence about agreed issues.

“Upon at need we need to be able to prove that something has been sent.” (Category manager)

In the theory section and as well as in the empirical data of the study the importance of face to face meetings was pointed out. They were seen to bring informality to the relationship which was considered to be a positive thing. Face to face meetings were considered to be good way to deepen the relationship especially in more complex interfaces. Based on empirical material teleconferences can considered to be some kind of substitute for face to face meetings and important communication tool as well.

Orders and forecasts were mainly sent via web based or system to system type solutions. Email was also used for order and forecasting purposes occasionally. Any heavy adaptations to the communication systems were usually not made in the program purchasing stage where the volumes are considered to be relatively small. Extranet solutions were also used together with the suppliers on translation interface for major draft sharing. The buyer might have access also to the suppliers’ intranet.

“I have access rights to the supplier’s intranet where I can search components or view list of open orders.” (Buyer C)

New kind of tools were started to use with the supplier recently. As a relatively new communication channel on a strategic level was mentioned database that was in pilot stage with three suppliers. The category management team and sourcing are maintaining the supplier related internal database as a part of value adding sourcing activities. The target of the database is to systemize supplier related activities. In the future, the amount of involved suppliers will probably increase and the internal access interface will probably be expanded. Action points that need to be reviewed with suppliers on a monthly basis are determined based on value added sourcing. Action item lists and follow up plans are drafted to the involved suppliers. Internal database
provides a storage base for teleconference memos and other supplier related information. The main stress is on strategic issues but also operational issues can be processed upon at need.

Based on the empirical material, communication tools related to technical difficulties were not considered to be a major problem in communication. Major global breakdowns in communication systems in the buyer organization were naturally affecting all employees but were usually fixed in short time without any extra actions. If a supplier was having some technical problem, for example with Edi or other system to system type connections, the buyer will direct the problem to the system’s key user if the solution cannot be found by fast checking settings. While the problem is on operations, orders are taken care of by sending pdf’s via email.

When asking about with whom the interviewed were communicating it turns out that the buyers were mainly communicating with the customer service team, account managers and sales engineers. Quality issues were usually solved with the help of quality engineers, and sometimes help from production managers was also needed. The management level was mainly communicating with account managers. With technical details the contact person was usually mentioned to be application engineer. The increasing amount of participants when moving from interface to more complex interface did not clearly emerged from the interviews. Despite the relationship interface level also vice presidents were involved on the management level communication, especially in price negotiations, which indicates that the size of supplier organization is also affecting to participant list.

Also third party can be added to communication in more complex interfaces as it was indicated in theory section. Based on the empirical material, on some occasions the suppliers are forced to collaborate in some extent so that the case company can manufacture a working product. For example some part may need to have a special kind of choker in order to operate properly. In this case suppliers need to co-operate in order to produce a working device. As a second example, a case where the aim is to develop some kind of totally new solution that has not been developed earlier can be mentioned. In this case a couple of suppliers can be invited to the case company’s premises to brainstorm together on how the requested product could be developed. This kind of activity can be considered to be close to the interactive interface.

“...we have announced to suppliers that we have now an acute problem. R&D has invented something that no one can manufacture. You are our best suppliers and if you cannot solve this together then we will forget this idea.” (Category manager)

Empirical material revealed that when starting a business with a new supplier communication may struggle at first. This is considered to be understandable as long as it is a transitory phenomenon. Based on empirical material it is typical that suppliers’ public image may scatter a bit after starting an actual business together. Empty promises might have been given in non-active interface before starting the actual co-operation in hope to get the deal.

Buyers are connected with the suppliers on a daily basis. The managerial level was communicating with the key suppliers weekly. Based on the empirical material, key suppliers were contacted more often than the other suppliers. Geographical distances and time zones are setting its own limitations to the communication between buyer and suppliers as it emerged
already from the theoretical part of the study. Empirical material was supporting this statement. As an example was mentioned the several hours of time difference to American office hours that is delaying communication and information sharing. Face to face meetings about strategic level issues were arranged with key suppliers in the managerial level regularly monthly or at least quarterly in order to guarantee and sustain the seamless supply chain. Technical and commercial meetings are usually held separately during the suppliers’ visits on the case company’s premises. With the case company’s global suppliers face to face meetings were many times replaced with regular teleconferences as it was mentioned in last chapter. With all contractual suppliers the yearly evaluation form was distributed to account managers once a year.

Usage of social media

Social media related interview questions were aimed to reveal what new the interviewed employees could bring to research subject. The researcher explained briefly to all participants what she means by social media before starting to ask social media related questions. According to this study social media includes blogs and podcasts, social networks (e.g Facebook), communities (e.g. forums, bulletin boards, YouTube, Wikipedia), content aggregators and instant messaging. All of the interviewed stated to be familiar with the social media at least in some level. Each of them was using at least one social media application.

The interviews revealed that the usage of social media is minor in work related communication according to interviewed persons believes. Only one of them agreed that he is using social media in his work with suppliers. Used social media tools were Skype with key suppliers and LinkedIn. In addition, the second of the interviewed noticed during the interview that he was also using social media in work related actions via LinkedIn. This so called late wakening is probably explained by the relatively short existence of social media. It is a rather new phenomenon and the meaning and richness of it might not be clear to the big audience. People might be using it even though they are not aware of it. In the term definition in the beginning of the study it came clear that also the researchers are still debating about the content of social media. The third interviewee also revealed to have a LinkedIn profile, but she has not used it for anything – yet. Two other users of LinkedIn described to be occasional users. Interviewed mentioned also that they know colleagues who were using LinkedIn as an contact platform and who were probably also sharing general updates about their work in LinkedIn.

“... I assume that part of my connections who are working in the case company are using LinkedIn more actively. They have been writing and creating groups on LinkedIn.”

(Technical manager)

The case company was having an internal social network as a part of the intranet along with blogs and podcasts. None of the interviews mentioned to maintain work related blogs. One of the interviewed mentioned that she is lacing through work related blogs and podcasts occasionally. In addition some kind of internal groups and social communication places have been already generated for example between the key users of web based purchasing tool. One of the interviewed was named as a key user of this program and she described how the members are sharing information between each other with the help of social media tools such as podcasts. Every time someone was sharing something to this closed web group other participants were receiving an email notification.

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“…I belong to this web group. I’m always receiving a email message when something new has been added there. I believe that there is also a chat possibility, but it is planned only for internal use.” (Buyer C)

Several reasons why social media is not used in work related issues emerged from the interviews. First of all the interviewed did not recognize any reasons why social media should have been used in communication towards suppliers and how the usage would be beneficial to the case company. Some kind of chat could be used to replace email exchange to a certain extent. One of the interviewed buyers mentioned that perhaps the situation will be different in the future but currently the used communication tools were considered to be sufficient. Another buyer mentioned that the increasing of communication tools would just increase the amount of communication which affects to workload directly. The frequency of communication was considered to be sufficient in the current level with recent tools. Security issues were also seen as problematic.

The question about the case company’s guidance on how to behave in social media was interesting. The company had social media guidelines that have been recently published internally to employees inside the company. Some of the interviewed agreed that they have received some kind of instructions from the case company about the way how to behave in social media. One of the interviewed mentioned that the first message from the case company had been when the social media emerged that did not use it. Part of the interviewed were still feeling that social media is something that is not highly acceptable to use in work related issues, or at least extra cautious needs to be obeyed. In addition usage of social media was not considered to be desirable during the work hours.

The empirical material indicates that the fear can be seen as a one of the factors that prevents or limits a more active usage of social media. Employees are afraid to share too much information. Interviewed were aware that by acting in social media they might end up to represent their employer as well besides themselves. It was seen that this sets certain limits to the usage. Many of the interviewed were considering using Facebook as a private life channel and LinkedIn as a work related profile. One of the employees mentioned that lancing through blogs can be considered to be acceptable, but several of the interviewed mentioned that they could not see themselves communicating with suppliers in work related issues by using existing social media tools.

“Of course we can glance through blogs while working but the idea that I would contact a supplier via Facebook and ask for samples, feels distant.” (Technical manager)

One of the inhibiting factors of social media and all the other new communication tools in the work context were considered to be implementation that is causing extra work for employees. Someone has to always take care of access and maintenance issues. Some of the interviewed were afraid that suppliers from different time zones will chat with them in the middle of the night if they will give them an opportunity. In addition more intensive communication with the suppliers was not considered to be necessary.

“I do not see necessary that suppliers can contact me on Facebook. Phone and email are enough.” (Category manager)
One of the social media related questions was how to make usage of social media in daily work more appealing. Only few concrete suggestions emerged. Interviewees were not seeing clearly how the usage of social media could bring added value to the case company’s actions. One of the concrete suggestions how to make usage of social media more interesting was correct workload. It was also concluded when reviewing the material in general.

Based on the analyzed material multiple ways how social media can be used were not recognized clearly among the interviews. Closed forums or wikis etc. was not considered to be beneficial at all. Two of the interviewees were already using Skype or similar solution in communication. In addition two of the interviewed mentioned that some kind of chat system between supplier and buyer organization representatives could be an excellent way to handle fast little questions etc. The access limited use of social media (closed forums etc.) was not recognized clearly or considered to be potential. Nevertheless usage of social media was not considered to be impossible in future. When the organization is wide and consists of thousands of people the communication methods can recognized to be variable. It was considered to be possible that some other plant might have been using social media already more actively in supplier communication.

**POTENTIAL FOR USAGE OF SOCIAL MEDIA IN SUPPLIER RELATIONSHIP MANAGEMENT**

On the basis of the analysis, we present the Table 4 which illustrates the empirically elaborated framework for the potential for social media in communication in different supplier interfaces. The potential is examined through the benefits and risks related to the use of social media in a particular supplier category in relation to the different aspects of communication (content, tools, feedback and frequency).

As a new element to the theoretical framework, a fifth interface labeled as non-active interface is added. This interface describes the interaction between the buyer organization and suppliers with whom the case company does not have an ongoing business relationship but the suppliers are interested to familiarize with the case company and start a business. For example social networks can be used as a new contact platform between the buyer organization and potential suppliers. Social network could include also a search engine facility that could be used when looking for new potential suppliers. As a risk can be mentioned the purpose of the social media tools that might be unclear among the employees. This risk that emerged from the empirical analysis can be considered to be valid also in the more complex interfaces. From the empirical material emerged also that an incorrect workload diminishes the willingness to start to use the new communication tools.

In the standardize interface as a new communication tools related risk can be mentioned the maintaining of the access and modification rights. It is considered to be risky because the interviewees were regarding rather negatively these kinds of activities that are increasing the workload. In addition as another new tool related risk can be mentioned system breakdowns.

*Table 4. Potential for social media in communication in different supplier interfaces - revised framework.*
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Benefits</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-active interface</td>
<td>Content General case company related topics, supplier profiles</td>
<td>Platform for occasional crowd sourcing, new supplier searching database</td>
<td>The purpose of the use is unclear among employees, company’s unclear attitude</td>
</tr>
<tr>
<td></td>
<td>Tools Blogs, podcasts, social networks, online-, content communities, content aggregators</td>
<td>New supplier search tool for buyer organization, for supplier new way to contact buyer organization</td>
<td>Incorrect workload diminishes the willingness to start use new communication tools</td>
</tr>
<tr>
<td>Feedback</td>
<td>Possible future business companions</td>
<td>If access is not limited suppliers are able to see each other</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Occasional</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standardized interface Content Daily business related issues and sharing of general content (such as safety, sustainability related information)</td>
<td>Shared information can be stored for later reuse, simultaneous access is not needed, restricted access possible</td>
<td>Loosening of participants appropriation. They will not recognize the value of the knowledge they have.</td>
</tr>
<tr>
<td></td>
<td>Tools Blogs, podcasts, social networks, online-, content communities</td>
<td>Travel and communication cost reductions</td>
<td>Requires preconditions, implementation decision and the actual implementation of new system from all involved parties; possible conflicts with different internal IT system solutions; someone needs to take care of access and modifications rights, system breakdowns</td>
</tr>
<tr>
<td>Feedback</td>
<td>Few participants</td>
<td>More benefits can be attained internally when social media is used also with external parties</td>
<td>Participants resistance towards change in implementation stage</td>
</tr>
<tr>
<td>Frequency</td>
<td>Based on demand and interest</td>
<td>Increasing frequency → faster reaction times to market changes, improved relationship quality</td>
<td></td>
</tr>
<tr>
<td>Specified interface</td>
<td>Content More information richness, daily business related, manufacturing instructions</td>
<td>Allows more intensive involvement for users to information sharing, technical questions, abbreviations lists can be stored for reuse</td>
<td>Employees fear of information leaks, potential information leaks, lacking of internal information sharing guidelines</td>
</tr>
<tr>
<td></td>
<td>Tools Blogs, podcasts, social networks, online-, content communities, content aggregators, instant messaging</td>
<td>A tool to extend supplier knowledge base and enhance the learning process if desired</td>
<td>Fear of information leak and security issues</td>
</tr>
<tr>
<td>Feedback</td>
<td>Number of participants increases in buyer organization</td>
<td>Enables access for supplier to information sources if desired, common platform provides a easy access for contacting key account managers etc.</td>
<td>Participation needs to be ensured so that the critical mass can be gained, employees are representing their selves and employer → employees are afraid that the line between work and free time will dilute</td>
</tr>
<tr>
<td>Frequency</td>
<td>Requires more frequent contacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Translation interface</td>
<td>Content More information richness, daily business related, product adaption suggestions and approvals</td>
<td>Enabling interactive communication and information sharing despite the time zones and geographical distances → creates alternative solutions → increases the likelihood that the final solution is the best available</td>
<td>Capturing of informal learning → the only way to be ensured that shared knowledge is accurate and appropriate for the business, how to disseminate informal learning</td>
</tr>
<tr>
<td></td>
<td>Tools Blogs, podcasts, social networks, online-, content communities, forums and bulletin boards, content aggregators, instant messaging</td>
<td>Decreasing the risk that relevant persons can be excluded from the information sharing when compared to email</td>
<td>Mix of social media tools is considered to be the most efficient way to use social media → several implementations costs</td>
</tr>
<tr>
<td>Feedback</td>
<td>Number of participants increases in supplier organization</td>
<td>Encourage participants to attend to innovation processes and new product development → feedback and corrective actions can be conducted immediately → reduce the risk of failure</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Requires more frequent contacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Version interface</td>
<td>Content High information richness, daily business and joint product development processes</td>
<td>Can be used as a launching pad for joint product development</td>
<td></td>
</tr>
<tr>
<td>Tools</td>
<td>Social networks, online -, content communities, forums and bulletin boards, content aggregators, instant messaging</td>
<td>Decreasing the risk of information overload when compared to email</td>
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<tr>
<td>-------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Feedback</td>
<td>Several participants, cross organizational teams</td>
<td>Enables access for third part to information sources if desired and crowd sourcing; expediting the ability to contact external expertise</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Frequent, dependent on the intensity of new product development projects</td>
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</tbody>
</table>

To the specified interface were linked only the new benefits that emerged from the empirical analysis to the existing interfaces. Abbreviations were causing occasionally problems to the communication according to the interviewees. For example the content communities could be seen as a place where the meaning of the different abbreviations could be rechecked. Also the product and manufacturing related technical questions could be handled in some kind of forum where they could be restored for later use and the access could be provided easily to all the relevant parties. The procedure would decrease the need for go-betweens without simultaneously restricting the amount of information among the participants. When using the joint online community together with the supplier the professions and the main responsibility areas of the different participants could be easily identified for example from the mandatory profile introduction. Up-to-date profile list could be used effectively when searching for contact persons to different purposes.

As a new issue from the empirical material emerged strongly that the employees were afraid to share too much information with the suppliers. This can be considered as a content related limiting factor for the usage of social media. The lacking of unambiguous information sharing guidelines may cause potential information leaks but also anxiety among the employees. These kinds of issues were linked to the specified and more complex interfaces where the amount of confidential information is increasing. In the more complex interfaces also the line between work and free time was afraid to be obscured when starting to use the social media tools with the suppliers. It emerged directly from the interview material as a new social media related weakness. Researcher connected this weakness as a risk in the more complex interfaces where the communication was considered to be less informal than in the less complex interfaces. Any new transactional interface or interactive interface related risks or benefits were not identified from the empirical material. Nevertheless the benefits and risks that were linked from the empirical analysis to the less complex interfaces in revised framework were considered to be valid also in the translational and interactive interface.

**CONCLUSIONS**

The aim of the present study was to explore the potential for social media in supplier relationships management. To do this, we have identified theoretically the characteristics of communication in different types of supplier relationships and the special features of social media as a communication tool in business-to-business context. This preliminary understanding was elaborated through the empirical study. As a result of our qualitative single case study, we identified the potential for social media communication (in terms of content, tools, feedback and frequency) within different supplier relationship types based on variations in supplier interfaces.
To conclude, at minimum social media can be seen as tool that can be used to share the ideological and ethical toughs of the company to suppliers and for example to subcontractors with rather low investments. It seems that social media provides lots of opportunities for supplier communication if the buyer organization is willing to put some effort to implementation. The importance of training and employer as well as management level involvement can be seen as a highly important factor. Social media can be seen as tool that could clear the single voice towards supplier activity and actually to whole supply chain if it is so wanted.

In terms of usage of social media in different types of supplier relationships, our study has presented a fifth supplier relationship type, a non-active interface which is relevant group of suppliers from the perspective of the present study. The difference between the out-supplier and in-supplier interfaces has been identified also in the previous supplier relationship management related literature (Moeller, Fassnacht & Klose 2006) but the communication towards the out-supplier has not been actively considered to any large extent in purchasing literature. The non-active interface is describing the interaction with those suppliers who are not currently having an ongoing business relationship with the buying firm. The complexity of the interface is not a permanent state and the supplier relationships change as firms develop their cooperation. The empirical analysis verified this statement. Interestingly, in the non-active interface as an important challenge we identified the problem of giving empty promises. The suppliers’ image may decline after starting the actual business together as the suppliers expect more business than the buyer company is willing to buy. This highlights the importance of considering carefully the communication towards the non-active supplier interface. In the other interfaces the risk for conflicts is increasing together with the complexity of the interface according to the theoretical findings of the study.

Social media was considered to encourage the participants to get involved in innovation processes and new product development. By using the social media tools feedback and corrective actions can be conducted simultaneously, which will reduce the risk for failure. In addition social media was seen as a tool for training purposes. Also other kind of communication and information sharing despite the time zones and geographical distances is possible by using social media. Simultaneous access is not necessary needed.

Usage of social media should reduce the risk of information overload when compared to email and it should also reduce the risk that relevant persons are not accidentally excluded from the distribution list. Based on the empirical findings the instant messenger was considered to be especially useful replacement for email in the minor questions, whereas the usage of common online communities or social networks was not seen nearly as beneficial as it was considered to be according to the literature review. It was rather strongly pointed out from the empirical material that one of the main issues why social media is not used in the supplier communication more widely is that the purpose of the usage is unclear among the buyer organization’s employees.

When using social media as a communication tool in the supplier relationship as a weakness can be mentioned that the implementation decision is needed from all participants in order to start the usage. Based on the previous literature resistance towards the change is often identified among the employees and management level in the implementation stage. From the empirical material come up that the case company’s unclear attitude toward the usage of social media is restricting
the usage. Information sharing guidelines should be unambiguous in order to avoid information leaks and confusion among the employees.

In the non-active interface the social media provides a new tool that suppliers can use when trying to contact the buyer organization representatives. It would be interesting to study can efficient social media platform decrease the amount of contacts that are made by using the traditional communication tools. At least the buyer organization can use the social media tools when searching for new suppliers or for crowd sourcing purposes. An adequate social media tool for this purpose could be for example a social network where suppliers could create profiles and highlight the company’s special skills and abilities. Also the buyer organization could have own profile for image marketing purposes. Basically in the non-active interface the usage of social media can improve the availability between the participants based on the results that were gained from this study.

Based on the reviewed literature in the standardized interface the usage of social media could enable that more benefits could be attained also internally when using social media as a communication tool. In addition it improves the level of communication by increasing the frequency, whereas it enables faster reaction times to the market changes and it also improves the relationship quality. In addition the usage of social media will decrease the travel and communication costs. As one of the improvements the shared information can be stored for later reuse among the participants. All of these improvements were identified from the theoretical section of the study; they did not come up in the empirical material. This can probably be explained by the minor work related usage of social media among the interviewees.

In the specified interface the level of communication can be improved by using a social media that allows more intensive involvement for information sharing for the users. Social media can be used for training purposes and as a tool to extent supplier knowledge if desired. For example, the list of abbreviations can be listed to a joint online community where the purpose of the different abbreviations can be conveniently rechecked. In addition a common platform provides an easy access for contacting the key account managers and other employees from the supplier side. In the translation interface the information richness is increasing. The usage of social media can improve the level of communication by enabling an interactive communication and information sharing despite the time zones and geographical distances between the organizations. These kind of activities create alternative solutions which increases the likelihood that the final solution is really the best available. All these points were identified from the theoretical part of the study. In the interactive interface social media provides an opportunity for a joint product development in the cross organizational teams without necessary ever meeting face to face. In addition it decreases the risk of information overload when compared to email. It also improves the level of communication by expediting the ability to contact an external expertise. Also all these points were identified by combining different existing theories in the theoretical section of the study.

The present study has shed light on the phenomenon that can be expect to gain importance in supplier relationship management in the future. Our study has been explorative in nature and the findings indicate a variety of important avenues for future research in this area. Our data certainly reveals that among practitioners of industrial purchasing, the idea of using social media in supplier relationship management raises a lot of questions and even hesitance and resistance. We call for more research that addresses this topic and especially one that combines the views of
the business-to-business marketing to industrial purchasing. As the use of social media in marketing side is gaining interest to a considerable extent, it is of high importance to also study and through that would also develop managerial knowledge of use of social media and other new media in communication with suppliers.

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