Press releases, annual reports and newspaper articles
- Using alternative data sources for studies on business network dynamics

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Abstract
Research according to the IMP-tradition has a strong foundation in case studies. These case studies are often built on interviews. Whereas interviews may capture the complexity of business relationships and networks, they are associated with weaknesses, especially if the interviews are meant to capture events that occurred in the past. In this paper we challenge the one-sided use of interviews through proposing alternative data sources for studies on business network dynamics. The purpose of this paper is to discuss and exemplify how press releases, newspaper articles and annual reports can be used systematically to study business network dynamics. Examples from three ongoing studies using these sources are presented to illustrate their use. These studies indicate that press releases, annual reports and newspaper articles enable both cross-sectional and longitudinal studies of business network dynamics, where the systematic use of data enables the capturing of a network at different times of its development without the risk of rationalisation or loss of memory effects.

Keywords: Data sources, Business network dynamics, Press releases, Annual reports, Newspaper articles

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Introduction

A business network is a set of inter-connected business relationships, which are long term and based on mutual interactions between actors. Whereas the longevity creates a notion of stability, networks do change over time (Gadde and Mattsson 1987). Business network dynamics can deal with changes in business relationships as well as in business network structures. With few exceptions, research on business relationships and networks has a strong tradition in case studies (Easton 2004; Easton and Håkansson 1996). The timely and contextual embeddedness of business relationships and networks advocates methods that capture their complexity (Halinen and Törnroos 2005). Although triangulation of data (cf. Denzin 1989; Patton 1990; Yin 1994) is common, interviews are often considered to be the dominating data collecting method. Other sources such as company records are merely used to complement the picture. When studying business network dynamics the focus is commonly on overtime changes in or of a relationship or network. The time variable becomes crucial as it requests methods to capture the development of the network over time.

Research is often conducted through retrospective studies. A search for cause-and-effect patterns e.g. means that the result of an activity needs to be observable at the time of the data collection. Other studies are performed as results of certain outcomes; the studies try to explain a studied phenomenon. Longitudinal or pre-test/post-test studies could be an alternative, but in order to capture the causes of a studied outcome, the causes to include need to be identified prior to the outcome is realised. Retrospective studies thus become a common alternative. Besides the large and perhaps costly effort required to gather any substantial amount of data of this kind, there is also a risk that if these retrospective studies are built on interviews, for example, weaknesses related to rationalisation and loss of memory may occur. The rationalisation aspect reflects how an event is described when the outcome is already known, which could lead to some information being modified to be presented more favourably (Trautwein 1990). The loss of memory may lead to events being reported incorrectly or (un)intentionally omitted. Taken together, rationalisation and loss of memory, affect how and indeed whether certain events are referred to.

The risk for loss of memory and rationalisation in interviews make alternative sources to capture data important. We argue that these aspects are some of the reasons why alternative data sources should be considered, where the discussion on alternative data sources in this particular reasoning is anchored in the business network field of research. In this paper data sources refer to methods to capture empirical data, and alternative data sources target other data sources than interviews. We propose the use of press releases, annual reports and newspaper articles as data sources. We emphasise a systematic use of these sources to convey aspects of business network dynamics, which separates the proposed employment from the common use of secondary data to complement other sources (cf. Welch 2000). By systematic use we mean that the source is stringently collected and thoroughly analysed in a well-devised way, with the aim to be the primary data source. The aim of this paper is to discuss and exemplify how press releases, newspaper articles and annual reports can be used systematically to study business network dynamics. The preciseness of events as reported on when they occurred makes these data a powerful tool for research. They further mean that a large number of cases can be processed and compared. Based on examples from on-going research projects on mergers and acquisitions (M&As), we show how the use of these sources can be used in a case study setting, but also in order to capture a certain phenomenon within several relationships. In the former, in-depth analyses are performed with a predetermined company as point of departure. In the latter relationships and networks are depicted from a structural rather than a focal perspective, i.e. no company or relationship is centred in the network.

The paper is structured accordingly: (i) a brief description of business network dynamics to provide a background for the proposed study field, followed by (ii) results from a literature study of data sources used when studying business networks, (iii) a more thorough discussion on alternative data sources, (iv) three examples of ongoing studies using press releases, annual reports and newspaper articles, and finally (v) a concluding discussion including propositions for further research.

Business Network Dynamics

Business networks are descriptions of sets of inter-connected business relationships. Such relationships are in turn descriptions of the long-term and mutual interactions between actors engaged in business exchanges (Håkansson 1982; Johanson 1989). Especially for business-to-business markets, relationships to existing customers and suppliers are of outmost importance, due to the small
number of actors on the specific market. Business relationships can be described with characters such as interdependence, adaptation, trust and commitment (e.g. Blankenburg Holm and Johanson 1997; Sandström 1990), and they clearly affect the engaged actors, just as the actors affect the ongoing relationships (Hallén et al. 1991).

A company is however likely to do business with more than just one actor, which means that a company is engaged in a number of business relationships (Håkansson and Snehota 1989). Via the actors, and the available resources, what happens in one relationship affects the other relationships; they are connected to each other. The connectivity between these relationships addresses the effect they have on each other.

Although business relationships and networks basically are considered stable (Gadde and Mattsson 1987), due to for example the long-term orientation, mutuality and connectivity, they do change. Business network dynamics deals with change within existing structures as well as alteration of structures. The change can thus be within a business network, i.e. change in a business relationship without alteration of the network structure, or of a business network, changing the structure as relationships are established or ended. Both incremental change of business relationships (e.g. Hallén et al. 1991; Håkansson and Snehota 1995) and radical change (e.g. Halinen and Tähtinen 2002; Tähtinen 2001) has been studied. But having a network focus on the change is more rare, although it does exist (Halinen et al 1999; Havila and Salmi 2000).

An interesting situation that is likely to cause change in business networks is when a merger or an acquisition occurs. Looking at the organisational level, mergers and acquisitions has received a lot of attention in aspects such as integration, synergies and culture (e.g. Gertsen et al. 1998; Goldberg 1983; Larsson 1990; Shrivastava 1986; Trautwein 1990; Vaara and Tienari 2002). Organisational aspects of M&As are undoubtedly interesting and important, but the inclusion of customers and suppliers in M&A studies has been notably absent (see however Anderson et al. 2003; Anderson et al. 2001; Havila and Salmi 2002; Holtström 2003; Öberg 2004). When two actors are concentrated into one, as a merger or integrated acquisition implies, business network effects are evident. The relationships of the two original actors are brought together and are thereby directly connected to each other after the actor concentration. Two networks, or two different parts of a network, are thus concentrated which substantially alters the network structure.

**Interviews as Dominating Data Sources**

In an attempt to get more substance into the assumption that interviews are the dominating data source in business network research (e.g. Welch 2000), we reviewed articles on business networks published in Industrial Marketing Management (IMM) between 1996 and 2005. IMM was chosen as the journal has an explicit focus on business-to-business marketing and has produced several special issues in the field of business relationships and networks related to the IMP tradition. A total of 53 articles (for details about the articles, see appendix) emerged as the Business Source Elite database was used to find all articles mentioning “network(s)”. It could be noted that in the early work (e.g. Salmi 1996; Huat Low 1997; Honeycutt et al. 1998) remarks are only made in passing on research method(s), whereas the method and methodological discussion has been given increased space in more recent articles. Of the 53 articles, six did not mention the data source. Seven articles were introductions to special issues (Freytag and Ritter 2005; Ehret 2004; Batt and Purchase 2004; Gadde et al. 2003; Leek et al. 2003; McLoughlin and Horan 2000; Möller and Halinen 1999). Such papers are primarily summaries of the other articles in the special issue, thereby not containing any own empirical part. These articles are thus excluded from the further data source analysis in this review. There were, furthermore, ten purely theoretical articles, leaving us with 30 articles with empirical content.

As can be seen in Figure 1 below, showing the distribution of the reviewed articles, survey methods for collecting data are used in eight articles, of which two combine the survey with interviews. Nine of the articles combine interviews with documents and ten uses interviews as the only source of data. All together, this adds up to 21 articles using interviews as a data source. Of the remaining papers, two are based on participatory (Loeser 1999) or experimental research (a game theoretical approach; Kim and Nam 2004), and left is one single article that is solely based on documents, where the source is described as “historical documents and correspondence” (Ford and Redwood 2005, p.648).
documents are used in the articles to create a background for the studied phenomenon (e.g. Beverland 2005) or as a complement to e.g. interviews (e.g. Schau et al. 2005; Wilson et al. 1999) to minimise biased information (Perks 2005). Examples of documents are company correspondence (Ford and Redwood 2005), message board discussions and billing records (Schau et al. 2005), presentations (Perks 2005), industrial statistics (Tikkanen et al. 2000) and annual reports (Kamp 2005; Tikkanen et al. 2000). With few exceptions (Mouzas and Araujo 2000; Tikkanen et al. 2000), the documentary data stems from the companies under study, whereas these two articles use external sources such as industrial statistics and data from market research companies.

Of the ten articles referring to documents as partial or main source, annual reports were used in two instances; the aim being to complement other data sources; Kamp (2005) combines interviews with secondary data, including annual reports, to gain an understanding of the activities performed in- and outside two car assembly plants, and how these develops over time. Tikkanen et al. (2000) use annual reports and other secondary data as a complement to interviews in a longitudinal case study to examine satisfaction and dissatisfaction in business relationships. In none of the articles, press releases, annual reports or newspaper archives were used as single source of data, and none of the articles refers to a systematic search in, and use of, these sources. Instead, these data sources seem to be addressed with specific issues where interviews did not provide enough answers.

Our review thus clearly support the assumption that interviews are the dominant data source in business network research. As much as 70 percent of the articles containing empirical material, and presenting the source of the data, were (mainly) based on interviews. Surveys were to some extent used as data collection method, whereas documents were almost only used as a complementary source. It should in this reasoning be emphasised that interviews and surveys are both data collection methods which primarily uses informants, i.e. individuals, as the data source.

The relative homogeneity of business network research data sources draws attention to the potential of finding alternative sources. Breaking up this homogeneity could prove valuable to the development of the business network research field, as it would imply a different point of view, avoiding the weaknesses of established manners, although struggling with new flaws.

Alternative Data Sources

In this part of the paper we discuss some advantages and disadvantages that involve using documents as complementary or alternative way to collect data. This kind of data sources can take the form of, for example, letters, memoranda, agendas, announcements, proposals, progress reports, evaluations, press releases and newspaper items (Yin 1994). Although the following discussion may
apply to all or most of these forms of documents, the focus in this paper is on press releases, annual reports and newspaper articles.

Archival data of different kind have been used in studies in a variety of fields, although probably primarily in business and economic history (Welch 2000). As was shown in the article review (Figure 1), interviews are the dominating data source in business network studies, which is also supported by Welch (2000). Archival data is however considered suitable for studies of business relationships and business networks (Easton 1995), and the article by Welch contains an interesting discussion of the use of company archives in case studies concerning business networks. She describes three main uses of archival records, namely to add new data and enable verification, generate developmental explanations, and challenge existing theories. We try, however, in this paper to call attention to a structured and systematic use of alternative data sources not only to make case studies but also with other approaches. We further do this through using other data sources than company records.

A Complement or Main Source
The article review earlier in this paper showed that when documents of some kind were used, it was primarily as a complement to interviews. Information in press releases, annual reports and newspaper articles can be used, especially in case studies, to help the researcher interpret other data material more insightfully and can even be used as a starting point and lay the foundation for collecting data through interviews (Malhotra 2004; Smith et al. 2001). This can be seen as a data triangulation, which is often used for a kind of data verification (Welch 2000). The benefit of triangulation is that the study bears on several pillars (Marshall and Rossman 1989) through the use of different data sources, methodologies, researchers or theories, a greater trustworthiness can be achieved as the shortcomings of one method are often the strengths of another whereas a combination of methods can achieve a more trustworthy result (Denzin 1989). Accordingly, the various data collecting methods are not mutually exclusive. But we argue that sometimes press releases, annual reports and newspaper articles provide enough insight by themselves that there will be no need to collect data through interviews or any other data collecting techniques (Churchill 1999). In that sense, they can be used as alternative data sources and not merely as complementary data collecting methods.

Accessibility and Coverage
The amount of available and valuable information in documents such as press releases, annual reports and newspaper articles are clearly underestimated. Generally speaking, an advantage of using documentary information is its potential to give the researcher a large saving of time and money (e.g. Malhotra 2004) although also archival research is considered very time consuming (Welch 2000). To its advantage, press releases, annual reports and newspaper articles are easily accessible, which is a major difference to company records. Also, they have a broad coverage – long span of time with many events – as opposed to interviews that are targeted and focus directly on the research topic (Yin 1994). Thus, documentary data becomes very suitable in, for example, longitudinal studies. The extensive and easy access of press releases, etc., do however easily result in a large amount of data. This puts high demands on the handling of the data, and systematic filtering and organising of the data is required.

It can be argued that press releases, annual reports and above all newspaper articles suffer from incompleteness. Due to lack of space, the information presented in newspapers is usually not detailed but covers only a portion of the event(s) in question. The brief nature of these news items is however positive as it increases the chance that the “raw facts” are presented quite directly. Newspaper articles, press releases and annual reports can leave some details out. This problem can be linked to the company’s or the journalist’s selectivity process in the events that are being covered, selection bias, and to the content of the text, description bias (Welch 2000). Also, the press may only receive the type of information that the company in focus is willing to hand over. Of course, this problem exists also when conducting interviews or any other kind of data collection method (Dahlin 2005).

The unobtrusive character of documents should not be seen as merely a negative aspect. The fact that documents are not created as a direct result of the study at hand makes the use of such information sources highly motivated since press releases, annual reports and newspaper articles are published at the time of the issue the data is addressing and are in this sense capturing the
Avoiding the risk of distortion is especially important when conducting interviews. Rationalisation of events and decisions taken in the past, is one of the key problems with retrospective studies built on interviews (or surveys with individuals as informants). Furthermore, some events that are made public may be sensitive to discuss openly, or one can argue that the company producing the annual report or press release presents the information slanted to its own benefit. This can lead to certain modifications in or embellishment (Silverman 1985) of the data at hand. The material presented in a newspaper article is the result of the journalist’s analysis. The journalist interprets the data at hand and chooses what to include and what to exclude. Some research on media bias and agenda building look further into for example how media coverage relates to societal movements (cf. Smith et al. 2001). The research in that field has shown that there is a variation in what is included in the reports, for example depending on the political streams. The variation is however not always in the favour to the organisation or movement which has called for attention (Smith et al. 2001). Thus, the risk of distortion is always present, which is fully possible also when conducting interviews. Rationalisation of events and decisions taken in the past, is one of the key problems with retrospective studies built on interviews (or surveys with individuals as informants).

Thus, whether documents such as press releases, annual reports and newspaper articles cover all events or not, is only relevant if the attempt is to grasp the “whole” situation. However, when the objective is to grasp a picture of events and changes in business networks, documents described above make up a very suitable source of information. Most important is to make sure that the study is not based on rumours and speculations. Press releases and annual reports depict the focal company’s view of the events described. External published materials that originate directly from a company are very rarely based on guesswork. In the same way, newspaper articles are often founded upon a press release or any other information directly from the company in question. In a present study about the competitive advantage a company can receive from institutions like the business media, Kennedy and Zajac (2005) stress the reciprocity that exists between the source at the focal firm and the reporter. Kennedy and Zajac (2005) mean that in any reporter-source exchange each side offers something the other party needs, and each actor can give or withhold what the other actor wants. A firm wants a story about the advantages of its products and services, and the reporter needs access to individual sources to add reliability and interest to their stories. So, there is a reciprocal interdependence that makes reporters anxious to present correct details. Furthermore, Kennedy and Zajac (2005) found that press releases are sometimes presented as news articles with minor changes or no editing at all. This would imply that the information in newspaper articles also reports on the network from a company’s point of view, which touches upon a study by Vaara och Tienari (2002), in which they found that media was often portraying mergers and acquisitions in a way that stressed the positive aspects of the consolidation.

Awareness of this description bias is part of the reason why alternative data sources have been so seldom used. Welch (2000) discusses verification of archival records, which indicate the search for some kind of veritas, i.e. truth. It is our belief that the alternative data sources no less than interviews make up a very suitable source of information.
merely give a picture of the studied phenomenon, and not the truth. However, Scott (1990) highlights four criteria for evaluating documentary evidence. These are authenticity, i.e. establishing the authorship, credibility, i.e. the reliability and openness, representativeness, i.e. how well the documents represent the available documents about the object, and meaning, which is a hermeneutical process. But the bias is not a problem unique to the alternative sources, so if using the data with the common critical approach of a researcher, it should be as good as any other source.

Contemporary Information
As mentioned in the introduction, interviews as a way for collecting data suffers from two serious weaknesses: rationalisation and loss of memory. When the outcome of the issue under study is already known, interviewees can modify information to be presented in a more favourable way. Interviewees may be unable, or unwilling, to give honest answers to the researcher’s questions. Further, the loss of memory may lead to some events being reported incorrectly or (un)intentionally omitted. In connection to this discussion, one may also argue that interviews suffer from reflexivity, that is, interviewees give what the interviewer wants to hear. Taken together, rationalisation, reflexivity and inaccuracy due to poor recall, affect how and indeed whether certain events are referred to. In this sense, documents can be used to verify, support and augment information gathered through interviews (Yin 1994).

Alternative Data Sources for Studying Business Network Dynamics
When studying business network dynamics the most essential aspect needed is the construction of the network in focus; the relationships that connect firms, the nature of the relationships with regard to what is being exchanged and the events influencing this structure over time. Press releases, annual reports and newspaper articles do provide this type of information. In fact, the amount of information available in these sources is measureless. Taking annual reports as an example, we can find a description of the focal company and its connections to suppliers, resellers and other parties. The descriptions are more or less detailed but they still give us a good quality picture of the composition of the network. Further, annual reports, press releases and newspaper articles contain descriptions of several events – like mergers, acquisitions or divestments of subsidiaries – and often also their effects on the focal company and its surroundings. By e.g. analysing annual reports from several years at a stretch, we can capture how the network surrounding the focal company changes over time. We can depict new relationships, dissolved relationships and the events leading to changes. Because of the characteristics of the alternative data sources, they are likely to give a different view of business networks than what interviews would yield (Welch 2000).

Three Examples of Studies Using Alternative Data Sources
To illustrate the potential of alternative data sources to study business relationships and networks, three studies are briefly described beneath. They all deal with mergers and acquisitions and apply a business network perspective on such events. The three studies have got quite different aims, they use slightly different sources and, perhaps most interesting of all, they use the data in quite different ways. These examples give substance and support to the proposed multitude and potential of alternative data sources.

Customers in M&A Motives – A Use of Press Releases
In a study presented in Öberg (2004), press releases reporting on M&As were used to capture official M&A motives among publicly traded companies. The aim of the study was to analyse what attention was given to customers and how customers were perceived in M&A announcements.

Data was selected for a specific year (2003 in the publication) and for companies listed on the Stockholm Stock Exchange A-list. The chosen population represented companies within a wide range of industries such as forestry, pharmaceutical, banking and manufacturing industries. The study entailed a complete review of all press releases of the population. This population, consisting of 57 companies, had released 2,182 press releases during the year, whereof 123, or 5.6 percent, referred to M&A activities.

The press releases were mainly collected through a press release data base, Waymaker, though complemented by obtaining releases directly from company websites when companies did not distribute their press releases, either ever or for a time, via Waymaker.
The 123 observations were found through searching the published press releases for merger or acquisition activities. In a first step, all available press releases were looked through to arrive at a preliminary grasp of phrasings and of publication frequency. Analysis focused on categorising the releases into various groups and themes which themselves arose from the analysis, i.e. the study was exploratory in that sense. The press releases were reviewed in terms of: (i) content (the particular matters included), (ii) particular phrasings (the phrasings/words used), and (iii) who/what is described (e.g. the acquirer, the target, the M&A).

The frequency of M&As could be seen as a result per se, but through analysing the relevant press releases using content analysis the frequencies and phrasings of different M&A motives could be elaborated on. The most frequent motive implied that the M&A aimed at strengthening a (market) position. Customers were referred to both in the presentation of the acquiring and acquired party, and in the motives. Results indicated a frequent use of references to customers, but where customers were only considered in indirect terms. Only a limited number of press releases referred to customer relationships directly or how the M&A would impact such relationships. These few instances entailed phrasings of commitment and the mentioning of specific customer relationships, to exemplify:

“More than 4 years of recession in the overall US market for construction equipment is impacting both manufacturers and dealers. We feel it’s important to show our customers and the employees of L.B. Smith our strong commitment to the US market”, says Scott Hall, Executive Vice President and responsible for Global Marketing & Sales within Volvo CE.

Press release, Volvo 2003

The official motives commonly seemed to imply that the customers were controllable parties of the merging/acquiring/acquired parties, which also provided input to a comparative study between how customers were dealt with in press releases and in the M&A activities that followed the announcement.

This study is cross-sectional to its nature, where the customers of the merging or acquiring parties were focused on, i.e. a certain aspect of the network. The study clearly uses the fact that the information in the press releases was published for a certain cause – to announce and justify an M&A. This means that content analysis become a tool in studying events potentially impacting a business network. The approach taken in the study could also be suitable for longitudinal studies; either to map M&A activities per se, or to study possible overtime changes in M&A announcement phrasings.

An IT-company’s Expansion and Streamlining – A Use of Annual Reports and Press Releases

In an ongoing case study, so far presented in Fors (2005), annual reports and press releases were used to capture a focal IT company’s expansion and streamlining in connection with the Swedish dotcom crash at the turn of the century. Data was selected for a specific company and included three subsequent year, 1999-2001, to grasp changes over time. The aim was to give an illustrative example of the Swedish dotcom crash by presenting the amount of mergers, acquisitions, bankruptcies and sales of subsidiaries and their effects on the surrounding business network.

Annual reports and press releases for the three subsequent years were found by database searches as well as by using the focal company’s website archives. A sum of 131 press releases were found; 43 for the year 1999, 48 for the year 2000 and 40 for the year 2001. The three annual reports and all 131 press releases were systematically reviewed with regard to (i) events like mergers, acquisitions, bankruptcies and divestments of subsidiaries (both contemporary and future events); (ii) mentioning of customers, suppliers and partners; and (iii) organisational structure with subsidiaries and financial investments. A custom made scheme was developed for the purpose to distinguish the different types of events and relationships. The scheme was also developed to capture general in information about each registered event, for example the exact time of an acquisition, the company name of the former owner and the names of customers.

By a thorough analysis and comparison of the material at hand not only different types of relationships could be distinguished, but also their relative strength based on the way they were presented and who many times they were mentioned. Less important relationships could be separated from important and very important relationships. For example, some customers were both mentioned in annual reports and press releases, whereas other customers were only mentioned in one of the sources. Some
customers were thoroughly described and could take up to a whole page in an annual report or a full press release, whereas others were only referred to by name.

In this case study annual reports and press releases had many advantages of which the main were the amount of valuable information and the fact that they enabled longitudinal studies. The analysis of the material that covered the three subsequent years made it possible put the focal company in a changing network context. The information found in the annual reports and press releases showed that the focal IT-company, Nocom AB, grew very fast through a number of strategic acquisitions leading to new partner and customer relationships. But it did not take long before the same company lost some of its relationships, both old and new ones, due to restructuring measures to streamline the organisation. In a short period of time many of the IT company’s affiliated firms were either sold or declared bankrupt. Annual reports and press releases were able to show that the events that occurred before and during the dotcom crash were critical for many business relationships as many relationships were established and/or terminated. The two figures attempts at illustratively present the results of the analysis.

Figure 2. Nocom AB’s subsidiaries (oval shapes), customers (square shapes), and partner and supplier relationships (rhombic shapes) in 1999. The illustration shows five acquisitions and thereby several new business relationships.
A Longitudinal Study of M&A Patterns in Business Networks – A Use of News Paper Articles

In an ongoing study, so far reported in Dahlin (2005), a tool for structuring a large amount of data, derived from analysis of news items on mergers, acquisitions and bankruptcies involving Swedish IT-related companies, has been developed. The aim of the study is to get an extensive overview of changing business network structures during a turbulent era among the Swedish IT-companies. The basic idea is that mergers, acquisitions and bankruptcies are events that cause structural change of business networks. Patterns are sought, as to approach any kind of underlying network mechanisms. This sets the requirement of a quite large amount of data, and as change over a period of time is looked for, the study has a clear longitudinal aspect which must be met in the data and analysis.

As mentioned, news items are used as the source for this data. News items are easily accessible in large quantities through searchable databases, and furthermore, they have a strong continuity and a clear time dimension. These properties make news items suitable for gathering a large amount of data covering an extended period of time.

Presently, the Swedish trade paper ‘Computer Sweden’ has been used. It is a paper focused on IT and the IT-business and it is published three times a week. The current study covers fourteen years, 1992-2005, as the article database begins its coverage in 1992. During this period, a total of 86,791 items have been published. With the help of the article database, the news items can be filtered by specifying certain search terms addressing mergers, acquisitions and bankruptcies. After such filtering, 2,689 articles were extracted from the total amount. These were then manually read-through and their relevance was assessed, which has given a usability ratio of about 62 percent of the filtered articles.

The data must represent M&As as well as business relationships to be of use to the aim of the study. Although the news items primarily describe the events, that is, mergers, acquisitions and bankruptcies, they also contain information about the involved companies’ relations to other actors. It is for example often mentioned who are the most important customers of an acquired company, and also retailer and partnership relations are often described. All the small pieces of information together have the potential to form a larger picture of network structures.
As a relevant news item was found, containing information on mergers, acquisitions or bankruptcies, it was analysed and coded with the help of a coding scheme designed to suit the aim of the study. Likewise, information about the involved companies and about other companies, with which they are interacting, was registered. To facilitate this coding, a custom developed computer software has also been used. It guides the coding, stores the data and provides possibilities for analysis.

The result is a large amount of structurised and interrelated data, representing companies, relations and events. The events, companies and relations are described in a number of aspects, to the extent such information has been found naturally. No in-depth characteristics of the relations are coded, thus giving a rather shallow understanding of the unique relations, but as the purpose is to capture structures, deeper understanding of the individual relations is not required.

This rather odd set of data, which is given by this structuration technique, provides a challenge in as how to analyse it. Explorative analysis of the coded data will have to be performed. One can consider over-all analyses, including all the data and looking for patterns in the large setting, as well as more case like analysis, perhaps focusing on a specific actor and looking at its surroundings and change thereof. The methods employed in the analysis could vary from case descriptions to quantitative approaches and calculations. Due to the unconventional data set, it might also be suitable to try completely different approaches, for example inspired by social network analysis and the many advanced computer software in that field, or more to mathematics where graph theory, set theory and game theory might be fruitful ways to approach the data.

As the time dimension is included in the data set, it makes the data very suitable for performing longitudinal analysis. The coding scheme was also developed with the aim to capture business networks, and to enable analysis of structural change of business networks. There is thus a great potential to focus the analysis on both business networks and on mergers and acquisitions. An example of such a study could aim at identifying M&A movements in relation to existing business network structures, perhaps such a study could reveal different M&A behaviour, or shed some light on whether or not mergers and acquisitions mostly take place within already existing relations. Or, if moving the focus to the mechanisms of business networks, the change in the structure of business networks could be analysed with the help of both the time dimension and the registered events. Within this approach, different types of network change could perhaps be identified and described (cf. Dahlin et al. 2005).

This way of using an alternative data source illustrates how such data can be used to make longitudinal studies of dynamics, and how such data can be used to create a large amount of data as opposite to thorough data focused on one case.

**Summarising the Three Research Studies**

Above we have presented parts of three ongoing research projects, that use annual reports, press releases and newspaper articles as alternative data sources for capturing business relationships and networks in different contexts. Previously in the paper we have argued that annual reports, press releases and newspaper articles have several advantages that enable them to capture network dynamics. In the table below we summarise our three examples by classifying e.g. their approaches, data sources and mode of analysis. By this classification we hope to point out the advantages of the data sources depending on how they are used.
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<td>2,689 news items from 14 years processed.</td>
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<td>Press release archive searches for chosen companies.</td>
<td>Database searches and the focal firm’s website.</td>
<td>Database searches.</td>
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<tr>
<td>Content analysis.</td>
<td>Custom made scheme which distinguishes events, relationships and organizational structure.</td>
<td>Custom designed coding scheme and software tool.</td>
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<tr>
<td>How customers are taken into account in M&amp;A announcements.</td>
<td>Mentioning of events, customers, suppliers, partners and organizational structure in the annual reports and press releases.</td>
<td>Mentioning of important customers, suppliers, partners, etc. in the news items.</td>
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<tr>
<td>Explorative overall analysis.</td>
<td>Actor centred analysis in a changing network context.</td>
<td>Explorative overall analysis. Actor centred analysis also possible.</td>
<td></td>
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<tr>
<td>Created an understanding for the role(s) of customers in M&amp;As.</td>
<td>Made it possible to grasp changes over time and illustratively present the results.</td>
<td>Made it possible to study M&amp;A within existing business network structures.</td>
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<td>Enables cross-sectional studies with complete coverage of selected companies.</td>
<td>Enables longitudinal studies and detailed data.</td>
<td>Enables longitudinal studies and a large number of observations.</td>
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Table 1. A classification of the three research examples.

As can be seen in the table, the three studies were made with different approaches, which points at the fact that these data sources can be used for case-focused studies as well as for overviews. The more specific sources vary, but we believe that annual reports, press releases and newspaper articles are rather similar and thus substitutable. The amount of data used, and the mode of collection has naturally varied with the purpose of the study. In the case-focused study, the search for data is naturally centred around that company. The differences in delimitation are also interesting to note. Beside the case-focused study, one study focus on the top 57 companies on the Stockholm Stock Exchange, they thereby made up the selection and delimitation on which searches in databases could be performed. The remaining study instead made its delimitation by looking for IT-related companies.
that had been involved in a merger or acquisition. The focuses thereby vary, in accordance with the different approaches, from a single company to a vaguely defined group of companies.

The possibilities for analysing the data are many, and of course also this varies with the approach and objective. The obtained data can be used to produce a detailed case description, perhaps telling the story of a company or an event. The data can also be quantified and analysed numerically, perhaps describing a group of companies or a phenomenon on an aggregated level. The choice of data source does not necessarily mean the choice of the way to conduct the analysis, so there are certainly a large number of possibilities for analysis.

Concluding Discussion

Research on business networks has a strong foundation in case studies based on interviews. These interviews are occasionally complemented with secondary data such as annual reports. In this paper we emphasise the systematic use of alternative data sources. By systematic use we mean that the source is stringently collected and thoroughly analysed in a well-devised way, with the aim that it is the primary data source. The systematisation takes these kinds of sources from being complementary sources to e.g. interviews, to them being used as standalone sources providing a rich, and varied, information base for business network dynamics.

In the discussion about alternative data sources, some critical points about documentary information was presented: Secondary data is often criticised for being collected for a certain purpose, but as was highlighted through the three examples of studies in this paper, written data may well be used for a variety of purposes. It is also worth emphasising that just because data are written rather than oral, it need not necessary be classified as secondary data. As the studies show, the data merely becomes an alternative to interview and survey data, but with the advantage of not being reconstructed, or left out due to time lapses. In the specificity of business network dynamics, the richness of information, and the possibility to make retrospective longitudinal studies with data actually published when e.g. changes occurred are especially valuable. The use of press releases, annual reports and newspaper articles either as sole or complementary source minimises the risk for loss of memory effects as the data is published at the time of the events. Whereas the data may be modified, the rationalisation effects are limited to what was perceived as the rational act at the time. No historical reconstructions are possible which further strengthens the argument for using these data sources in longitudinal studies. As these sources are written for a certain purpose, they further enable the study of a specific perspective on a phenomenon. Through using press releases, annual reports and newspaper articles systematically, the possible incompleteness of these sources is exchanged with a rich amount of information. In the specificity of business network dynamics, where a change process is studied, these sources become truly applicable, as they manage to capture how the network was reported on both before, during and after a certain event without muddling the picture with rationalisation or loss of memory effects.

The data sources may certainly affect how the network is perceived, as business networks are merely an analytical tool. Companies and business activities can be seen and described as business relationships forming business networks, but it is a highly subjective notion. This means that business networks can be understood differently, both conceptually and empirically. Previous studies have argued that gaining insight into a particular business network is highly dependent on which actor’s perspective that is taken. A network can be considered borderless (Halinen et al. 1999) and the limitations of an actor’s ability to perceive the surrounding business network, and the relevant domains of a network to acknowledge, can be discussed as for example network context or network horizon (Anderson et al. 1994; Holmen and Pedersen 2003; Thilenius 1997). Some recent papers has introduced the notion of ‘network pictures’ to address the subjective cognition of business networks (e.g. Henneberg et al. 2006). But just as the understanding of a network would vary with the position from which one is looking, it is reasonable to apply the same assumption on the source of information. In this sense, annual reports and press releases, which both stem from a certain company would potentially present a different notion about the network than would newspaper articles. As described in the section about alternative data sources, several newspaper articles are built directly on press releases, this meaning that there would be an (at least partly) overlapping in the notion about the network between press releases and newspaper articles. Using different data sources would most likely give different understandings of a business network (Welch 2001), although none would be more correct than the others as the subjective nature excludes such estimations.
Not only is it so, that this would be expected to vary with the respondent or informant, where press releases, annual reports and newspaper articles could be seen as alternative informants to interviewees, moreover these sources enable studying business networks as structures rather than as nets emanating from a focal point. This alternative way of approach business networks was delineated in Dahlin (2005) and adds on our understanding for business network dynamics without forgoing a richness in details to understand the embeddedness of relationships.

In this paper it has been argued that alternative data sources are useful alternatives to direct sources, for example due to its easy availability and historical coverage. It would however be very interesting to confront these alternative data sources with traditional ones, such as personal interviews, and with each other. Certainly, a somewhat different notion and reporting about network dynamics would be found depending on the sources used. Whereas we pinpoint the systematic use of press releases, annual reports and newspaper articles, by no means, triangulation of data, including interviews, but also, as demonstrated by the study of an IT-company’s expansion and streamlining, through combining, for example, annual reports and press releases, would enrich the picture. Although we do not argue that there is a ‘true’ picture that is captured in a varying degree by the different methods, it is still of interest what kind of information that can be obtained from the different data sources, and also how ‘costly’, in time and money, the different sources are to use. Confronting data, collected from different sources but concerning the same object, could reveal important similarities or differences. Studies that strengthen the confidence to this kind of alternative data sources are valuable.

Also, the suitability to use different sources depending on the aim of the study is relevant to consider. Compared to annual reports, the frequency of publication of newspaper articles and press releases, make these sources more suitable when studying minor and/or processual changes of networks. Annual reports, on the other hand, give richer information with a given frequency in description. As the three studies described in this paper progress, they will perhaps give some more experience in this question. Data sources of this kind has been used earlier (e.g. Rydén 1971) and seem to be of interest also today (e.g. Kennedy and Zajac 2005). We follow studies using alternative data sources with great interest and believe that raising the discussion on alternative data sources contributes to an enriching heterogenisation of research methods in studies on business networks.

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Freytag, Per Vagn and Thomas Ritter (2005), "Dynamics of relationships and networks—creation, maintenance and destruction as managerial challenges," Industrial Marketing Management, 34, 644-47.


## Appendix: Articles in the review on data sources.

<table>
<thead>
<tr>
<th>Type of data source</th>
<th>Articles</th>
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<tbody>
<tr>
<td></td>
<td>Beverland, Michael (2005), &quot;Adapting within relationships to adapt to market-led change: Does relationship success lead to marketplace inertia?,&quot; Industrial Marketing Management, 34, 577-89.</td>
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<td></td>
<td>Hertz, Susanne and Monica Alfredsson (2003), &quot;Strategic development of third party logistics providers,&quot; Industrial Marketing Management, 32, 139-49.</td>
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<td><strong>Survey</strong></td>
<td>Ciardo, Danny Pimentel, Geoffrey Hagelaar, and Onno Omta (2003), &quot;The determinants of relational governance and performance: How to manage business relationships?,&quot; Industrial Marketing Management, 32, 703-16.</td>
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<td></td>
<td>Kothandaraman, Prabakar and David T. Wilson (2001), &quot;The future of competition,&quot; Industrial...</td>
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<tr>
<td>Category</td>
<td>Title</td>
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<td></td>
<td>Freytag, Per Vagn and Thomas Ritter (2005), &quot;Dynamics of relationships and networks—creation, maintenance and destruction as managerial challenges,&quot; Industrial Marketing Management, 34, 644-47.</td>
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