

PERSONAL VERSION

This is a so called personal version (authors's manuscript as accepted for publishing after the review process but prior to final layout and copyediting) of the article.

Holmlund-Rytkönen, M & Strandvik, T, 2005, 'Stress in Business Relationships', *JOURNAL OF BUSINESS & INDUSTRIAL MARKETING*, vol 20, no. 1, pp. 12-22.

Readers are kindly asked to use the official publication in references.

Stress in Business Relationships

Maria HOLMLUND-RYTKÖNEN & Tore STRANDVIK

HANKEN Swedish School of Economics and Business Administration, Finland

Department of Marketing and Corporate Geography

CERS - Centre for Relationship Marketing and Service Management

Address: P.O. Box 479, FIN 00101 Helsinki, Finland

Fax: +358-9-431 33 287

Phone (MHR): +358-9-431 33 396 e-mail: maria.holmlund-rytkonen@hanken.fi

Phone (TS): +358-9-431 33 290 e-mail: tore.strandvik@hanken.fi

Stress in Business Relationships

ABSTRACT

One of the causes of change in business relationships comes from incidents that deviate in a positive or negative way from the expected and normal relationship pattern. In this paper we introduce the concept of stress which captures the effect of negatively deviating incidents in business relationships. We present a technique, the Negative Critical Incident Mapping (NCIM), for measuring this kind of stress. The technique is used in an industrial service and a business service setting to measure stress in a dyadic manner. The results show that not only were all studied relationships burdened with stress to a varying extent but there were also substantial differences in the degree and content of stress. The relationships showed significant differences when seller-buyer pairs of stress perceptions were matched. Operator-level perceptions of stress in the relationships corresponded better than manager-level perceptions. Research and management implications from the new relationship stress concept conclude the paper.

Key words: business relationships, relationship stress, negative critical incidents,

NCIM-technique, dyadic approach

INTRODUCTION

This study gives attention to risk factors in a relationship. One such negative force that moderates the strength of a relationship is what we in this study introduce and label relationship stress. Relationship stress is considered to be the perceived cumulative effects of negative experiences in the business relationship. Negative incidents and problems accumulating in the relationship are sources of stress because they may cause tension in the relationship and may affect its stability. The purposes of the paper are to introduce the relationship stress concept, to present a technique for measuring and analyzing it, and to explore its value by applying the technique to two empirical studies.

The study aims to shed light on relationship dynamics by focusing on risk factors in business relationships. Justifications for introducing stress in a relationship setting are several. First, relationship strength is one significant variable for identifying and distinguishing different relationship structures. Besides exploring aspects constituting and increasing the strength of relationships, investigations should also be made into aspects decreasing their strength. Stress would be one such aspect. Second, the history of the relationship is essential for how a relationship will evolve in the future. Insights into relationship history are valuable in order to understand differences in functionality between relationships and relationship future, for example, relationship-ending propensities. Third, techniques to measure not only products or service aspects but also relationships are needed in research. Management as well calls for concrete and usable relationship information. Focusing on how relationships are burdened with stress can address this academic and managerial need. Fourth, negative aspects in business life are often neglected in academic studies and company measurement instruments, but can be used to gain valuable insights. A risk factor to the whole

relationship that is based on negative experiences and problems creating stress constitutes one such aspect.

The paper has the following structure. First a conceptual understanding of stress in business relationships is developed. For this purpose, earlier studies on relationship structures and negative aspects of relationships will be reviewed. Then an empirical measurement technique for measuring negative experiences in business relationships labeled NCIM (Negative Critical Incident Mapping) is proposed. One feature of this technique is the ability to expose stress in business dyads. Third, findings from using the technique in two empirical studies are used to show stress in business relationships. A discussion on the findings and implications for research and managers concludes the paper.

CAPTURING THE STRENGTH OF RELATIONSHIPS

The reason for introducing stress in a relationship setting is to expose and explore one kind of risk factor in a relationship. Stress is here seen as a hidden and tacit form of risk to the relationship and is based on experienced and exceptional situations occurring in the relationship. In critical incident studies it has been shown that incidents have an effect on the fading and dissolution of relationships (e.g. Keaveney, 1995; Stewart, 1998; Roos, 1999).

Relationship strength is often used as a synonym for commitment, a concept that has been under scrutiny by many researchers investigating long-term relationships (for example, Dwyer et al, 1987; Moorman et al, 1992; Morgan and Hunt, 1994; Young and Denize, 1995; Donaldson and O'Toole, 2000; Patterson and Smith, 2001). Previous studies considers relationship strength as a comprehensive concept which

can be operationalized as the degree of reluctance to end a relationship and to which other concepts, such as value, satisfaction, quality, and commitment, can be seen as antecedents (Storbacka et al, 1994; Holmlund, 1997). Other concepts depicting the nature of relationships similar to relationship strength are: bonds (e.g. Johanson and Mattsson, 1985), structural bonds (Wilson and Jantrania, 1995), and closeness together with distance (Young and Wilkinson, 1997; Nielson, 1998; Homburg, 1998). These concepts reflect interdependence between companies and indicate, in addition to the parties' actions and choices, their willingness to maintain the relationship. Trust, mutuality, and shared goals have typically been found to be the main components of relationship strength and its related concepts. Increasing relationship strength, i.e. that companies become committed to each other and create bonds, has typically been attributed to antecedents such as product and technology adaptations, investments, contractual terms, intensive communication, social pressures, and satisfaction.

The main impression given by the literature is that there has been a concentration on what increases relationship strength and on a retrospective analysis since most studies have aimed at describing antecedents and the content of relationship strength. It is interesting that there are no studies labeled relationship weakness, although a recent article by Good and Evans (2002) investigating relational turbulence due to decreased valuation of anticipated or existing relationship benefits labeled relationship unrest comes close. Recently, however, studies have started to call for more understanding of the less pleasant aspects of relationships. Issues investigated in these studies appear to be negative aspects such as conflicts and the handling of these, or the unpleasant consequences of being involved in long-term relationships, with a third category of studies concerning negative aspects such as criteria in segmenting a relationship

portfolio. The conflict studies (for example, Easton and Araujo, 1992; Bengtsson and Kock, 1999, Welch and Wilkinson, forthcoming) highlight the fact that interdependence implies cooperation and conflict, and that therefore conflict development and management need to be included in relationship studies. Conflict is typically defined as perceptual incompatibility and opponent centered. However, Håkansson and Snehota (1998) have emphasized negative relationship aspects from long-term relationship by calling attention to the burdens of relationships. This refers to the result of being involved in a particular relationship which companies do not usually notice until the possibility to make decisions is affected and the degree of freedom is limited. When negative aspects have been brought into relationship portfolio models the aim has usually been to identify key elements distinguishing successful from unsuccessful relationships (Fiocca, 1982; Olsen and Ellram, 1997; Leek et al, 2002). Leek, Turnbull, Naudé and Ritter (2002) for example found that degrees of trust and commitment in addition to length were lower in problematic relationships.

There is a recently emerging stream of studies that deals directly with negative aspects of relationships, and thus decreasing relationship strength, by focusing on how and why relationships die and dissolve (review in Tähtinen and Halinen 2002). Within these studies there appear to be two main groups: those examining antecedents of relationship ending, and those focusing on the actual ending process. Ping (1999) in the former category has for example found that relationship neglect, which means allowing the relationship to deteriorate and reducing social contact, may be an impacting factor. Relationship neglect appears to be directly related to relationship strength as it clearly implies an emotional exit, a weakening of the relationship without intervention by the companies.

Business-relationship ending researchers studying the termination process tend to share the following features. Commitment is typically used as a key characteristic for the nature of the relationship (for example Hocutt, 1998). The first sign of a potential ending process starts when one of the parties, usually the buyer side in the dyad, experiences dissatisfaction with an event. There is then a desire and a conscious decision to terminate the relationship. Voice (Ping, 1999), i.e. complaining and complaint handling, has thus been considered a significant issue. After the unsuccessful handling of the situation an ending process follows in which both companies take part and where social interaction is of significance (for example Tähtinen, 2001). Giller and Matear's (2001), and Alajoutsijärvi, Möller and Tähtinen's (2000) studies on relationship termination, for example, share these assumptions. The former study focuses on different termination strategies from a dyadic perspective and relationship characteristics such as social bonds that impact on the decision to terminate and the termination strategy employed. The latter study takes a communication perspective and describes dyadic termination strategies, especially for achieving 'beautiful exits'.

These studies, describing relationship ending, are the group of studies dealing with relationship-strength influence that directly relate to the present study. Relationship-ending researchers have, however, not recognized the potential underlying relationship tension because of cumulative negative experiences as an aspect that influences ending. They focus on the content of an extensive process where the outcome is a deliberate finalized termination. In doing so they can be said to describe not merely the weakening but the collapse of relationship strength.

STRESS AND CRITICAL INCIDENTS IN RELATIONSHIPS

The stress concept has been used to denote the state or condition of strain and especially of intense strain and pressure to which an individual fails to make a satisfactory adaptation, and which causes physiological tensions that may be a contributory cause of disease (Webster's Third New International Dictionary 2002). In the organizational literature there has been considerable debate about stress in organizational settings. This research has however focused on stress at an individual level, on workplace-related stress and specifically on relationships between job stress and other variables such as job satisfaction and performance, organizational commitment, workplace absenteeism, and personnel turnover (e.g. Sager and Wilson, 1995). Role conflict, role ambiguity, and role overload are typically referred to as role stressors. In the extensive job-stress literature, stress refers to poor fit between people's abilities and their work requirements and conditions (e.g. Parasuraman, 1982; Parasuraman and Alutto, 1984; Ganster and Schaubroeck, 1991; Jamal, 1990). This stress is considered as an awareness or feeling of personal dysfunction as a result of perceived conditions or happenings in the workplace, and an individual's psychological and physiological reactions to these uncomfortable, undesirable, or threatening workplace conditions. (Parker and DeCotiis, 1983) Salespeople in particular have been the subjects of job-stress studies (e.g. Teas, 1983; Behrman and Perrault, 1984; Sager, 1994; Sager and Wilson, 1995; Montgomery et al, 1996; Sager et al, 1998). In these studies stress refers to: "a sales person's psychological response to the selling job wherein a sales person perceives (cognitive and emotional) resources as taxed, resulting in an unknown potential for negative outcomes." (Sager and Wilson, 1995, p. 59).

In a business setting there is no established definition of relationship stress available. We define relationship stress as the perceived cumulative effects of negative experiences in the business relationship. In line with the extensive literature on critical incidents and critical events (e.g. Keaveney, 1995; Stauss and Weinlich, 1997; Stewart, 1998; Roos, 1999; Holmlund and Strandvik, 1999a; Backhaus and Bauer, 2000; Bloemer et al, 2000; Edvardsson and Strandvik, 2000) we consider these negative experiences to stem from incidents not meeting expectations or comparison standards. Contrary to job-stress research which has focused on how individuals perceive stress in their own job, our relationship-stress definition should be seen as a concept at an organizational level. Relationship stress is thus a function of the perceptions of those individuals who are significant in a business relationship.

Relationship stress is considered as one type of risk factor affecting the strength of the relationship. Relationship risk factors would be signals of vulnerability in the relationship that on their own may be relatively harmless, but as they bubble under the surface over time they may accumulate into fatal consequences. Stress is similar to what Good and Evans (2001) suggested as one reason for relationship unrest, namely process malfunctions or ineffective flows by relationship partners. Other issues causing tension and insecurity in a relationship which decreases relationship strength are beyond the scope of the current study, especially the empirical part. Yet it should be noted that such issues could be for example general current and future business uncertainty, strategic decisions in either of the companies, and structural aspects of the relationship. This study in other words does not attempt to investigate what the various factors are which affect relationship strength, but focuses solely on negative experiences and their effect on the relationship.

In Hausman's study (2001) stress is used with a different meaning but is directly linked to relationship strength. With stress she refers to uncertainty and even fear in connection with the implementation of new technology and systems between organizations. Business will be better able to survive and grow and this kind of stressful situation better managed, she claims, when the relationship is strong. Proença and de Castro (2002) offer another definition of stress in business relationships. By studying relationship stability and short-term irregularities in a corporate banking setting they found that the causes for volume decline were various factors such as negotiation power, perceived financial risk, individual transactions, turnover of personnel, and the economic situation of the customer. By stress (and noise) they refer to irregularities that impact as temporary reductions of the volume of business.

A key concept in this study bringing out a risk factor to relationships is 'critical incidents.' Critical incidents have been studied with a perceptual approach where any episode or aspect in a particular relationship that involved individuals consider to deviate from the normal and are able to recall is labeled critical. Labeling an incident as *critical* stems from when service researchers have aimed to uncover customer delight and customer dissatisfaction with especially positive and negative episodes and interactions with a service company. The encounters that the customers have been able to recall when asked about memorable situations have been labeled critical. As for methodology, a qualitative method, the Critical Incident Technique, originally developed by Flanagan (1954), has been used to study these deviating incidents. The time-perspective when studying critical incidents has recently extended from a focused episode to a relational view on incidents and their effects (Stauss and Weinlich, 1995; Roos and Strandvik, 1996; Holmlund, 1997; Holmlund and Strandvik, 1999a; Stewart, 1998; Edvardsson and Strandvik, 1999). Since some

incidents alert perceptual and, often also, behavioral attention they can be assumed to have a larger influence on the relationship than routine incidents which have not stood out (Roos, 1999; Holmlund and Strandvik, 1999a; Edvardsson and Strandvik, 2000; Backhaus and Bauer, 2000). It is this way of defining what a critical incident is that is used in this study since the focus is on accumulating experiences as the persons directly involved in the relationship recall from the relationship. Focusing on the negative critical incidents, what the present study does is to consider the accumulation of these as sources of stress moderating the strength of the relationship.

The Nature of Relationship Stress

Compared to previous relationship dissolution studies that begin with a terminated relationship and trace the processes that lead to this, the present study starts from unexpected and deviating incidents, i.e. critical incidents, incrementally causing stress in the relationship. The relationship stress can be captured with a measure that, in a particular point in time, represents previous negative experiences from working together. In a business dyad there are two parties affecting how the dyad develops and, consequently, taking into account both parties' views compared to one party's will produce a more inclusive picture. The current study therefore, in addition to examining buyers' and sellers' views of relationship stress separately, pairs this information dyadically in order to get dyadic-specific insights.

As described earlier, an incident is significant when it triggers perceptual attention or behavioral attention or both. Stress in other words arises when expectations and goals are not met. Psychological research (Taylor, 1991; Ahluwalia, 2002, Friman, forthcoming) has found a so-called negativity effect, i.e. that negative information generally elicits stronger effects than positive information. This effect has also been

empirically validated in a business-to-business relationship setting (Odekerken-Schröder et al, 2000). In addition to releasing stronger feelings, negative information obtains more weight in decision situations, is considered more intensely in memory processing, and is stored for a longer period. Backhaus and Bauer (2000) argued along the same lines when they examined the relevance of critical incidents in business relationships and studied their impact on the formation of attribute and overall satisfaction. Similar to the current study, they also focused on negative incidents and found that these had a greater impact on overall satisfaction than positive incidents. Their empirically supported assumptions were that the first incident exerts the strongest impact on overall satisfaction, and that there is diminishing sensitivity with every additional incident as, with increasing number of incidents, a single incident loses some of its extraordinary character. They further found that the impact of an incident was greater on satisfaction with an attribute which had closeness to the incident than on overall satisfaction, since overall satisfaction may be compensated for by satisfaction with other attributes. Positive incidents appeared to neutralize the effect of low attribute satisfaction on overall satisfaction, while negative incidents strengthened this effect. This meant that a negative incident was seen to be most critical if the satisfaction level was already low. Backhaus and Bauer (2000) also observed that critical incidents may function as a filter which influences and ‘colors’ perceptions of other issues in the relationship, meaning that individuals can be predisposed to view them negatively; an effect labeled halo-effect in satisfaction research.

Thus, it is natural that negative critical incidents are of significance and that they are more so than positive critical incidents. Following from this, stress in terms of negative experiences can be seen as tension in the relationship causing immediate

annoyance. What however makes stress even more significant from a relationship-strength point of view is that it may also directly and incrementally strain the whole relationship. This is because this kind of negative information is memorized by the individuals and used in decision situations, for example concerning the upgrading and downgrading of the relationship.

Since stress is a perceptual phenomenon, its magnitude is a relative measure. In other words, that Person A reports significant stress does not necessarily mean the same as Person B reporting the same. Their evaluation reference points vary, and the evaluation depends on at what point in time, with regards to relationship history and future, it was made. How negative the experiences are can vary from non-existent to significant, which means that the stress level likewise varies from none to significant. With regard to relationship strength, it becomes essential to analyze different kinds of negative forces and risk factor in order to understand not only what strengthens but also what weakens and endangers the relationship. In practice, almost all relationships contain some degree of stress in terms of hassle and friction, at least occasionally. Similarly, experiencing conflicts and chaos is not completely uncommon in relationships either.

Stress does not exist as such but arises in the form and to the extent that the parties view the situation. The involved companies can experience stress in different ways, both in terms of content and magnitude. There are numerous illustrations of the significance of perceptions in a relationship-ending context. Already in 1980, Doyle, Corstjens and Mitchell (1980) empirically found that salient perception differences existed as to why advertising agency-client relationships ended, and that this led to blaming the other party and avoiding self-criticism. Grønhaug, Henjesand and

Koveland (1999) have reported a situation where a business relationship faded away without one of the parties noticing because of a rigid mental model which captures the past instead of the present. A finding of Giller and Matear (2001) was that there were differing and even conflicting views in the two companies in the same relationship of why and how ending had occurred. Apart from the fact that different stories of the same ending can occur because it is such a sensitive subject or companies deny that certain behavior takes place, it was highlighted that both companies can genuinely perceive the same ending differently. Studying successful vs. unsuccessful relationships, Leek, Turnbull, Naudé and Ritter (2002) also made remarks that there were inconsistencies between hard data and the managers' perceptions of these. Managers were more likely to continue holding a negative perception than a positive one, and they were more likely to anticipate problems in a smoothly running relationship than to maintain a positive attitude when problems started to occur. Tikkanen and Alajoutsijärvi (2002) have also asserted that (dis)satisfaction in business companies cannot be understood without understanding 'historic path-dependence in inter-organizational relationships', i.e. organizational memory which often preserves historical dissatisfaction and restricts business options.

NEGATIVE CRITICAL INCIDENT MAPPING (NCIM)

This paper proposes a technique, Negative Critical Incident Mapping, for measuring and analyzing stress in business relationships. The name of the technique refers to the output of the quantitative phase, where incidents and dyads can be positioned in different grids or maps. The technique draws on ideas developed in Strandvik and Friman (1998) concerning negative critical incidents in consumer relationships that have been further adapted to a business-to-business setting by Holmlund and Strandvik (1999a, 1999b).

The steps constituting the technique can be grouped into a two-phase procedure in which a qualitative and a quantitative phase are combined, followed by a managerial-action phase. *Step 1) Identification of problematic situations and events in a particular business setting.* This is achieved by gathering documentation, but foremost by interviewing involved persons on both sides of the dyads. The result is a collection of stories about problems of different kinds that have occurred or could have occurred, described in everyday language. *Step 2) Choice and description of typical critical incidents.* This refers to choosing and reducing the number of problems to be included in the quantitative phase from the large number of potential problems from the previous step. The criteria for choosing problems could be those that are considered most frequent or important. For practical reasons the stories have to be condensed to fit the questionnaire format. *Step 3) Construction of questionnaire / Data collection.* Developing scales, background variables and other variables, and planning for the data collection are next. Data can be collected by personal interviews, telephone interviews, mail, or the Internet. Since the focus is on business dyads, representatives from both sides of the dyad should participate in the study. *Step 4) Analysis of collected data.* The collected data can be analyzed in different ways, but in this paper the focus is on the issue of stress. *Step 5) Interpretation of the results and decisions about action points based on the findings.* This phase is facilitated by the fact that the incident descriptions relate to commonly occurring processes in the relationships, and that each relationship is studied separately.

The presentation of the findings from the Negative Critical Incident Mapping study is based on matching and comparing pairs of buyer and seller data and depicting the overall significance of each critical incident. Answering the questionnaire, the seller

was asked to assess how they think the customer perceives the incidents. Hence, the seller's own opinion about the incidents and their effects was not assessed. Instead the sellers' answers represent their understanding of the buyer's view. The key feature of the NCIM is the mapping of the criticality or problem index of the problem, and this is obtained by asking the respondents to assess each potential problem on three aspects. These represent different dimensions of how a respondent is affected by a problem, and indicate together the stress from the particular incident. One such aspect is recency, referring to when the problem last occurred: for example - never, earlier than the past 12 months, within the past 12 months, or within the past four weeks. The second aspect is frequency, which is how often an incident has occurred: for example - never, very seldom, sometimes, or very often. The third aspect concerns how negative an impact such an incident has on the operation: for example - no impact, very low impact, moderate impact, or very strong impact. In earlier studies frequency of negative critical incidents has been found to have a significant effect on overall (relationship) satisfaction and trust (Strandvik and Friman, 1998; Friman and Gärling, 2001). A frequency aspect is also supported by Stauss (1993) who suggests a frequency-relevance analysis of problems (critical incidents) as a way of improving customer-perceived service quality. The frequency of critical incidents obviously becomes relevant when a relationship perspective is applied. The relevance or impact of an incident is motivated as a weighting factor to assess the overall importance of an incident or problem (Stauss, 1993; Friman et al, 1998). The recency of an incident is a factor that arises in a relationship perspective but it has not been largely investigated in the literature (Friman et al, 1998; Strandvik and Friman, 1998). Nevertheless, from a management perspective it was justified to include recency, since more recent incidents may have a stronger influence on the relationship. Another reason is that a more comprehensive analysis tool is obtained by combining three aspects. It is beyond

the scope of this study to go into empirical details of the aspects; the focus is on the accumulation of the incidents, which is depicted in the relationship stress index.

Assigning these aspects numerical values, in turn, enables various quantitative analyses and comparisons. Using the above verbal criticality scales for each aspect, a suitable numerical scale could range from 1 to 4, which indicates step-wise increasing stress. This implies that an incident obtaining, for example, values of 4, 4, and 4 is assessed to have occurred very recently, to occur very often, and to have a very strong impact. The problem index depicts the stress of single incidents and allows dyadic comparisons between the buyer's and the seller's point of view. This index is calculated as the mean value of the evaluations of frequency, recency, and impact for each incident. Stress can be depicted both as the overall stress perceived by each party, but also more in detail as the stress increment each incident creates.

Two Conducted Empirical Studies with the NCIM technique

In this paper we are using the above-described technique to investigate stress in relationships and refer to two empirical studies that have been conducted using the technique. The studies are summarized in Table 1.

“take in Table 1”

In the first study, which was conducted in an industrial service setting, 16 dyads were studied, and in the second one that concerned business service, 29 dyads. In each dyad several persons in significant strategic and operational functions in the relationship on both the seller's and the buyers' side were interviewed. Since the aim was to get truly relationship-specific and relationship-meaningful information, the objective was to

include all key persons and then assure that responses were obtained from all of them. The respondents were in both studies chosen by the seller, and respondents represented relationship-specific significant persons on two levels, managers and operative persons. With a few exceptions respondents could be replaced with another relationship key person than the one originally selected. The response rate was thus close to 100. Each respondent evaluated all critical incidents on the three aspects, i.e. in the industrial service study each of the 56 respondents evaluated all 63 incidents, and in the business service study correspondingly 108 respondents each evaluated 44 incidents. Each interview lasted for at least 30 minutes. The sellers and the buyers rated the same incidents. The sellers' representatives' task was to assess how they thought the buyers' counterpart had experienced the incidents, thus not how they had experienced them themselves. The key point was not that the buyer and seller see things differently, but that the seller may not understand the buyer's point of view in these critical issues. The study was explicitly designed to capture how the seller thinks that the buyer perceives the critical incidents. We thus argue that this design depicts how customer-oriented/relationship-oriented the seller is and how good customer knowledge they have which can be considered a prerequisite for effective relationship management.

What are referred to by incidents are problems in the relationships of the processual or structural character. Since the two studies cover completely different business situations, the incidents and incident categories are different. In both cases the incidents that were included in the questionnaire were generated through an extensive qualitative phase. From a large number of potential critical incidents the management in each seller's company selected those that were both managerially interesting and covered different problem sources in the relationship.

The sellers' managers selected the dyads to be included in the quantitative study. In both studies the aim was to obtain diversity in relationship types, representing different customer categories, not especially problematic or problem-free relationships. In the industrial service study the seller's own representatives conducted the interviews. They were not involved in daily business with the studied customers. In the business service study in contrast a market research agency was employed to conduct telephone interviews. In both cases the interviewers were trained and given detailed instructions by the researchers, who also conducted the analysis of the data. The findings were reported to the companies that have used them in their internal training programs and in the development of their business.

The findings from these studies will in the following be used to illustrate stress in business relationships. The data can be used in different types of analyses of which several will be shown in the following. Since different organizational levels in the organizations have been included, it is possible to compare stress on these levels.

The problem indexes of individual incidents can be illustrated in a Problem Index Grid, Figure 1, which depicts matched sets of buyer-seller pairs in the same figure. This way of matching two parties' perceptions and depicting the views simultaneously in a so-called configuration map was developed earlier for studying business relationships (Holmlund and Strandvik, 1999b).

“take in Figure 1”

The problem index values of the seller are positioned on the grid's y-axis and those of the buyer on the x-axis. This implies that the figure illustrates the problems from a dyadic perspective enabling simultaneous comparison of the two companies. The problem index values of each incident are used to position the incidents in the grid, and the further from the origin the more severe the stress. Figure 1 demonstrates that the incidents had varying problem indexes. In the grid, for example Number 31, the dyadically most problematic critical incident, refers to unsatisfactory service scape. However, critical incident Number 43, not fully recognized by the seller as being the most problematic for the buyer refers to the seller not regularly keeping in touch. It also shows that the seller's understanding of the buyer's perceived stress is incomplete. If the seller had a perfect understanding of the buyer's view all the incidents would lie near the diagonal from the lower left-hand corner to the upper right-hand corner in the figure. In fact, the majority of incidents are such that the seller underestimates the buyer's perceived stress. The incident configuration, i.e. the spread of the incidents in the grid, was discovered to be different for each relationship pointing to the need to conduct relationship-specific evaluations. In the two conducted studies 45 problem index grids were generated altogether and there were considerable differences when comparing incident configurations. From a managerial point of view a key finding is that the dyad-specific incident configurations vary greatly. An aggregate level analysis (t-test, significance level .05) revealed significant differences in problem indexes between buyers and the seller for 8 incidents out of 44 in the business service case and for 17 incidents of 63 in the industrial service case.

In the industrial service case the incidents were grouped into four categories: interaction, buyer, seller, and network-related. In all other categories except the network-related group significant differences between the seller's and the buyer's

views were found. In the business service case other categories were used: basic services, special service, and overall relationship. In these categories no pattern in significant differences were found between the seller's and the buyer's views. There were incidents both that systematically generated stress over a large number of relationships and that were relationship-specifically stressful. Therefore it would appear important to produce, besides aggregate results for the whole sample, relationship-specific results. This is particularly so when applying a managerial perspective.

A holistic view on the effect caused by the incidents is given by the relationship stress measure. This measure reflects all problem indexes of all critical incidents in a particular relationship. The relationship stress measure is computed as an average of the problem indexes and presented as a percentage (0-100) of the theoretical maximum value. This stress measure can be computed for each company in a relationship, different subunits, and even for single persons. In Figure 2 the relationship stress in all studied 45 business relationships is illustrated.

“take in Figure 2”

BRSI stands for buyer relationship stress index, and SRSI the equivalent measure on the seller's side. It can be observed that there are significant differences in the stress in different relationships. In the industrial service case there were 9 out of 16 relationships with significant differences between the buyers' and the seller's stress perception. The corresponding number in the business service case was 20 relationships out of 29. Buyers' perceptions did not match the sellers' perceptions in many cases. The seller commonly appeared to overestimate the stress. Managerially

more significant nevertheless are the relationships where the seller underestimates the stress. In the figure the relationships are divided into four groups by the mean stress value for seller and buyer respectively. The majority of the relationships are close to the mean value; still there are some relationships with both higher and lower stress. In the figure, mean values are used to divide the stress values into four different quadrants. There are no absolute values for categorizing highly and less stressed relationships, and we therefore use mean values as a heuristic tool for doing this. Despite the fact that several relationships have similar total stress value, they can have fundamentally different sources of stress as illustrated in the problem index grid shown in Figure 1. It can also be noted that both industries show a similar distribution of relationship stress.

In the studies a separate set of questions, inspired by Homburg (1998), measuring relationship closeness and relationship satisfaction. In the industrial case closeness was measured with one question: "The Seller compares favorably with their competitors in terms of closeness to the customer." Relationship satisfaction was measured in both studies with: "Our overall satisfaction with the Seller is very high." We used a seven-point scale, ranging from strongly agree to strongly disagree. Sellers assessed the questions from the customer's point of view, and thus they did not provide their own closeness and satisfaction perceptions. It was expected that relationship closeness should be inversely related to relationship stress. There was however no significant correlation in the industrial service case between these two concepts. Buyers' and seller's relationship stress (Pearson corr. .505, sign. .046) and satisfaction (Pearson corr. .561, sign. .037) values were correlated but not their closeness values. The buyers' stress was correlated with their relationship satisfaction (Pearson corr. -.498, sign. .050), indicating that stress influences customer

satisfaction. Surprisingly however there was no correlation between the seller's assessment of how buyers perceive critical incidents and the seller's perception of buyer satisfaction. This could be due to the seller's incomplete customer orientation and understanding. In the business service case only relationship stress and relationship satisfaction were measured. The measures were strongly correlated on the buyers' side (Pearson corr. $-.738$, sign. $.000$). On the seller's side, however, the stress value was remarkably enough not correlated with relationship satisfaction. This again means that the seller does not recognize the effects for the buyers from critical incidents. This is also reflected in the findings that buyers' and seller's stress values were not correlated.

Figure 3 displays relationship stress on two different levels in the business service study: the manager (Mgr) level and the operator (Opr) level. On the manager level there is a considerable difference in relationship stress between the buyers and the seller. A somewhat higher correspondence can be observed between buyers' operators and the seller's operators.

“take in Figure 3”

It can be noted that on the buyer side, operators' and managers' stress perceptions are significantly correlated (Pearson corr. $.539$, sign. $.003$). Linear regression lines are included in the figure indicating the overall tendency of correspondence among managers and operators respectively. If the stress values were on the diagonal there would be a complete correspondence. Since the seller's respondents had been asked to assess how they think that the buyers perceive the incidents, all relationships outside the diagonal indicate incomplete understanding of the buyer. The findings showed a

considerable gap between the buyer and the seller in stress perceptions on the manager level. The operators seemed to be somewhat better aware of the occurrence of problems than the managers were.

DISCUSSION AND IMPLICATIONS OF RESULTS

This paper suggests that it is useful to introduce relationship stress as a risk factor in relationships. The new concept would be especially suited for capturing relationship dynamics since it captures the cumulative effects of negative experiences in the relationship in the form and to the degree that the two companies perceive these. So far this kind of relationship risk has not been seen or measured in relationship and therefore a technique needed to be developed which is presented as the NCIM technique. Findings from the two empirical studies indicate that noteworthy differences exist between the seller and the buyer in matched relationships.

In the critical incidents literature it has been shown that single critical incidents do not necessarily lead to visible effects in terms of changed behavior (Edvardsson and Strandvik 2000). There might, however, be long-term effects based on the accumulation of incidents that represent a hidden weakening of the relationship. Bloemer, Brijs, Swinnen and Vanhoof (2002) presented a similar view when they introduced the idea of latently dissatisfied customers. This kind of customer reports overall satisfaction but, despite this, a high tendency to defect. Stauss and Neuhaus (1997) suggested similarly that there might be hidden under the satisfaction score five different types of satisfaction with different patterns of emotions, cognitions, and intentions to end a relationship.

The stress in the relationship is a component in how strong and long the relationship becomes. Stress can also be linked to relationship satisfaction and relationship closeness as was shown in the empirical findings. A mismatch between the seller's and buyer's perception of the stress in the relationship may often be hidden, since the focus is on current ongoing and future interaction and not on the past. The stress may, nevertheless, affect the relationship in situations where evaluations of the relationship and decisions concerning the continuation of the relationship are done.

In a business relationship the buyer's and the seller's organizations are connected to each other on many levels. There are a number of relationships within the relationship. The technique proposed in this paper can, however, be used to reveal internal differences in each counterpart's perception of the relationship as well. Because perception maps enable dyad-level analyses and illustrations it becomes possible to avoid aggregated averages over relationships. These averages of averages have been criticized of being of little use, especially when the aim is to understand and manage individual relationships (c.f. Tikkanen and Alajoutsijärvi 2002).

The technique is biased towards capturing incidents with at least some degree of regularity. Incidents that are unique and rare will not be covered by the technique. If at all detected in the interviews, these are probably screened out in the phase where the questionnaire for the quantitative phase is constructed. The technique is accumulative in the sense that the time- and resource-consuming qualitative phase can be used to shape a questionnaire that can be used continuously if the situation remains the same. The questionnaire can be improved when necessary as a separate project. The level of detail can be adjusted to the companies' needs, although there are probably some natural units of processes that will emerge in the respondents' stories.

There are still a number of relationship-specific questions that remain to be solved. For example, is the same list of critical incidents applicable to different levels in the organization? Do the account manager and personnel involved in daily interactions perceive the same incident types as problematic? How should the perceptions be weighted even if they are the same for all personnel categories? Are all opinions equally worthy or should higher-level persons be considered more important? Perception differences between individuals and different levels indicate that different gaps exist which should be examined further in order to understand the nature and structure of relationships. It should be pointed out that stress could be seen as a positive concept, since it may raise the energy level leading to better performance. This is similar to how researchers on conflict and cooperation-competition regard their equivalent negative aspects in a relationship setting. Similarly to an optimal stress level for humans, there may exist an optimal stress level in relationships leading to better results than lower and higher stress levels. Distinguishing short-term and long-term effects of stress could be useful to explore these effects.

Stress was not in the presented empirical studies explicitly linked to dissolution or termination, and it is therefore beyond this study to draw conclusions about this connection. However it was obvious that the studied companies experienced different levels and content of relationship stress, indicating that negative experiences do exist in business settings and that they are recognized and memorized by the individuals and thus may affect their decisions regarding the relationship. That the relationship is terminated or that it dissolves may directly follow from this. Relationship dissolution and termination research could therefore find this type of information useful to complement their understanding of pre-disposing ending-affecting factors. Similarly

relationship-strength researchers may benefit from the relationship stress concept since it can be regarded as a sub-component of relationship strength. The higher the stress level in the relationship is, the higher probability that the strength of the relationship is affected.

For managers, in comparison, information on the relationship portfolio level is valuable in order to detect relationships at potential risk of being terminated or dissolving. Other uses would be to analyze stress in single relationships or to detect fundamental structural problems causing problems for a great number of relationships. Knowing and measuring stress in the relationship portfolio would benefit the relationship management as to which relationships need attention and what specific kind of action and development. If customer relationships are to be seen as assets, the company should know their health and durability as elements of the value of the relationship. Different layers of analysis can be applied to the NCIM data: not only insights on an aggregated relationship-portfolio level, but also for example relationship-specific, organization-level, incident-specific, and respondent-specific.

Perhaps the most important contribution of this paper is the recognition that a hidden risk factor in a business relationship can be revealed by the stress concept, which builds on accumulative effects of negative experiences. The technique proposed is a first attempt to capture this risk in a manner that has high managerial usability. Following-up the effects of stress on relationship dynamics is obviously a next step in order to ensure that the technique produces robust predictors of the evolvement of business relationships.

REFERENCES

- Ahluwalia, R. (2002) "How prevalent is the negativity effect in consumer environments?", *Journal of Consumer Research*, Vol. 29 September, pp. 270-279.
- Alajoutsijärvi, K., Möller, K. and Tähtinen, J. (2000) "Beautiful exit: How to leave your business partner", *European Journal of Marketing*, Vol. 34 No. 11/12, pp. 1270-1289.
- Backhaus, K. and Bauer, M. (2000) "The impact of critical incidents on customer satisfaction in business-to-business relationships", *Journal of Business-to-Business Marketing*, Vol. 8, No.1, pp. 25-54.
- Behrman, D. and Perrault, W.D. Jr. (1984) "A role stress model of the performance and satisfaction of industrial salespersons", *Journal of Marketing*, Vol. 8 Fall, pp. 9-21.
- Bengtsson, M. and Kock, S. (1999) "Co-operation and competition in relationships between competitors in business networks", *Journal of Business & Industrial Marketing*, Vol. 14, pp. 178-194.
- Bloemer, J., Brijs, T., Swinnen, G. and Vanhoof, K. (2002) "Identifying latently dissatisfied customers and measures for dissatisfaction management", *The International Journal of Bank Marketing*, Vol. 20 No. 1, pp. 27 – 37.
- Donaldson, B. and O'Toole, T. (2000) "Classifying relationship structures: relationship strength in industrial markets", *The Journal of Business & Industrial Marketing*, Vol. 15 No. 7, pp. 491-506.
- Doyle, P., Corstjens, M. and Mitchell, P. (1980) "Signals of vulnerability in agency-client relationships", *Journal of Marketing*, Vol. 44 Fall, pp. 18-23.

- Dwyer, F.R., Schurr, P.P. and Oh, S. (1987) "Developing buyer-seller relationships", *Journal of Marketing*, Vol. 51 April, pp. 11-27.
- Easton, G. and Araujo, L. (1992), "Non-economic exchange in industrial networks", in Axelsson, B. and Easton, G. (Eds.), *Industrial Networks: A New View of Reality*, Routledge, London, pp. 62-84.
- Edvardsson, B. and Strandvik, T. (2000) "Is a critical incident critical for a customer relationship?", *Managing Service Quality*, Vol. 10 No. 2, pp. 82-91.
- Fiocca, R. (1982) "Account portfolio analysis for strategy development", *Industrial Marketing Management*, Vol. 11 Iss. 1, pp. 53-62.
- Flanagan, J.C. (1954) "The critical incident technique", *Psychological Bulletin*, Vol. 51 No. 4 July, pp. 327-358.
- Friman, M. "The structure of affective reactions to critical incidents", forthcoming in *Journal of Economic Psychology*.
- Friman, M. and Gärling, T. (2001) "Frequency of negative critical incidents and satisfaction with public transport services. II", *Journal of Retailing and Consumer Services*, Vol. 8, pp. 105-114.
- Friman, M., Edvardsson, E. and Gärling, T. (1998) "Perceived quality of public transport service: inference from complaints and negative critical incidents", *Journal of Public Transportation*, Vol. 2, pp. 69-91.
- Ganster, D.C. and Schaubroeck, J. (1991) "Work stress and employee health", *Journal of Management*, Vol. 17 No. 2, pp. 235-271.
- Giller, C. and Matear, S. (2001) "The termination of interfirm relationships", *Journal of Business & Industrial Marketing*, Vol. 16 No. 2, pp. 94-112.

- Good, D.J. and Evans, K. R (2001) "Relationship unrest - A strategic perspective for business-to-business marketers", *European Journal of Marketing*, Vol. 35 Nos. 5/6, pp. 549-565.
- Grønhaug, K., Henjesand, I.J. and Koveland, A. (1999) "Fading relationships in business markets: An exploratory study", *Journal of Strategic Marketing*, Vol. 7 No. 3 September, pp. 175-190.
- Håkansson, H. and Snehota, I. (1998), "The burden of relationships or who's next?", in Naudé, P. and Turnbull, P. (Eds.), *Network Dynamics in International Marketing*, Elsevier Science, Oxford UK, pp. 16-25.
- Hausman, A. (2001) "Variations in relationship strength and its impact on performance and satisfaction in business relationships", *Journal of Business & Industrial Marketing*, Vol. 16 No. 7, pp. 600-616.
- Hocutt, M.A. (1998) "Relationship dissolution model: antecedents of relationship commitment and the likelihood of dissolving a relationship", *International Journal of Service Industry Management*, Vol. 9 No. 2, pp. 189 –200.
- Holmlund, M. (1997), *Perceived Quality in Business Relationships*, Doctoral Dissertation No. 66, Swedish School of Economics and Business Administration, Helsinki.
- Holmlund, M. and Strandvik, T. (1999a), *Critical Incidents in Business Relationships*, Working Paper No. 369, Swedish School of Economics and Business Administration, Helsinki.
- Holmlund, M. and Strandvik, T (1999b) "Perception configurations in business relationships", *Management Decision*, Vol. 37 No. 9, pp. 686-696.
- Homburg, C. (1998) "On closeness to the customer in industrial markets", *Journal of Business-to-Business Marketing*, Vol. 4 No. 4, pp. 35-72.

- Jamal, M. (1990) "Relationship of job stress and Type-A behaviour to employees' job satisfaction, organizational commitment, psychosomatic health problems, and turnover motivation", *Human Relations*, Vol. 43, pp. 727-738.
- Johanson, J. and Mattsson, L.-G. (1985) "Marketing investments and market investments in industrial markets", *International Journal of Research in Marketing*, No. 2, pp. 185-195.
- Keaveney, S. M. (1995) "Customer switching behavior in services industries: An exploratory study", *Journal of Marketing*, Vol. 59 April, pp. 71-82.
- Leek, S., Turnbull, P.W., Naudé, P. and Ritter, T. (2002), "Classifying relationships as successful and problematic. Theoretical perspectives and managerial implications." Paper presented at the 18th Annual IMP Conference, Dijon, France, September 5-7 2002.
- Montgomery, D.C., Blodgett, J.G. and Barnes, J.H. (1996) "A model of financial securities salespersons' job stress", *Journal of Services Marketing*, Vol. 10 Iss. 3, pp. 21-38.
- Moorman, C., Zaltman, G. and Deshpandé, R. (1992) "Relationships between providers and users of marketing research: The dynamics of trust within and between organizations", *Journal of Marketing Research*, Vol. 29 No.3, pp. 314-328.
- Morgan, R.M. and Hunt, S.D. (1994) "The commitment-trust theory of relationship marketing", *Journal of Marketing*, Vol. 58 July, pp. 20-38.
- Nielson, C. (1998) "An empirical examination of the role of closeness in industrial buyer-seller relationships", *European Journal of Marketing*, Vol. 32 No. 5/6, pp. 441-463.

- Odekerken-Schröder, G., van Birgelen, M., Lemmink, J., de Ruyter, K. and Wetzels, M. (2000) "Moments of sorrow and joy", *European Journal of Marketing*, Vol. 34 No. 1, pp. 107-125.
- Olsen, R.F. and Ellram, L.M. (1997) "A portfolio analysis to supplier relationships", *Industrial Marketing Management*, Vol. 26 Iss. 2, March, pp. 101-113.
- Parasuraman, S. (1982) "Predicting turnover intentions and turnover behaviour: a multivariate analysis", *Journal of Vocational Behavior*, Vol. 21, pp. 111-121.
- Parasuraman, S. and Alutto, J.A. (1984) "Sources and outcomes of stress in organizational settings: toward the development of a structural mode", *Academy of Management Journal*, Vol. 27 No. 2, pp. 330-350.
- Parker, D.F. and DeCotiis, T.A. (1983) "Organizational determinants of job stress", *Organizational Behavior and Human Performance*, Vol. 32, pp. 160-177.
- Patterson, P.G. and Smith, T. (2001) "Modeling relationship strength across service types in an Eastern culture", *International Journal of Service Industry Management*, Vol. 12 No. 2, pp. 90-113.
- Ping, R.A (1999) "Unexplored antecedents of exiting in marketing channels", *Journal of Retailing*, Vol. 75 No. 2, pp. 218-241.
- Proença, J.F. and de Castro, L.M. (2002), "Stress in business relationships: the case of corporate banking." Paper presented at the 18th Annual IMP Conference, Dijon, France, September 5-7 2002.
- Roos, I. (1999), *Switching Paths in Customer Relationships*, Doctoral Dissertation No. 78, Swedish School of Economics and Business Administration, Helsinki.

- Roos, I. and Strandvik, T. (1996), Diagnosing the Termination of Relationships, Working Papers No. 335, Swedish School of Economics and Business Administration, Helsinki.
- Sager, J. K. (1994) "A structural model depicting salespeople's job stress", *Journal of the Academy of Marketing Science*, Vol. 22 No.1, pp. 74-84.
- Sager, J. K. and Wilson, P.H. (1995) "Clarification of the meaning of job stress in the context of sales force research", *Journal of Personal Selling & Sales Management*, Vol. 15 Summer, pp. 51-63.
- Sager, J. K., Junsub, Y. and Futrell. C. M. (1998) "A model depicting salespeople's perceptions", *Journal of Personal Selling & Sales Management*, Vol. 18 No. 3, Summer, pp. 1-22.
- Stauss, B. (1993) "Service problem deployment: transformation of problem information into problem prevention activities", *International Journal of Service Industry Management*, Vol. 4 No. 2, pp. 41-62.
- Stauss, B. and Weinlich, B. (1997) "Process-oriented measurement of service quality: applying the sequential incident method", *European Journal of Marketing*, Vol. 31 No. 1, pp. 33-55.
- Stewart, K. (1998) "An exploration of customer exit in retail banking," *International Journal of Bank Marketing*, Vol. 16 No. 1, pp. 6-14.
- Storbacka, K., Strandvik, T. and Grönroos, C. (1994) "Managing customer relationships for profit: the dynamics of relationship quality", *International Journal of Service Industry Management, Special Issue on Relationship Marketing*, Vol. 5 No. 5, pp. 21-38.
- Strandvik, T. and Friman, M. (1998), "Negative critical incident mapping", in Edvardsson, B., Brown, S. W., Johnston, R., and Scheuing, E.E. (Eds.),

QUIS 6 proceedings, International Service Quality Association, Warwick, UK.

Stauss, B. and Neuhaus, P. (1997) "The qualitative satisfaction model", *International Journal of Service Industry Management*, Vol. 8 No. 3, pp. 236-249.

Taylor, S.E. (1991) "Asymmetrical effects of positive and negative events: The mobilization-minimization hypothesis", *Psychological Bulletin*, Vol. 110 Iss. 1, pp. 67-85.

Teas, K.R. (1983) "Supervisory behaviour, role stress and the job satisfaction of industrial salespeople", *Journal of Marketing Research*, Vol. 20 Iss. 1, February, pp. 84-91.

Tikkanen, H. and Alajoutsijärvi, K. (2002) "Customer satisfaction in industrial markets: opening up the concept", *Journal of Business & Industrial Marketing*, Vol. 17 No. 1, pp. 25-42.

Tähtinen, J. (2001), *The dissolution process of a business relationship. A case study from tailored software business*, Doctoral Dissertation No. 10, Oulu University, Oulu.

Tähtinen, J. and Halinen, A. (2002) "Research on ending exchange relationships: a categorization, assessment and outlook", *Marketing Theory*, Vol. 2 No. 2, pp. 165-188.

Young, L.C. and Wilkinson, I.F. (1997) "The space between: Towards a typology of interfirm relations", *Journal of Business-to-Business Marketing*, Vol. 4 No. 2, pp 53-97.

Young, L. C. and Denize S. (1995) "A concept of commitment: alternative views on relational continuity in business service relationships", *Journal of Business & Industrial Marketing*, Vol. 10 No. 5, pp. 22-37.

Webster's Third New International Dictionary, 2002.

Welch, C. and Wilkinson, I. "Network perspectives on interfirm conflict: reassessing a critical case in international business", forthcoming in *Journal of Business Research*.

Wilson, D. and Jantrania, S. (1995) "Understanding the value of a relationship", *Asia-Australia Marketing Journal*, Vol. 2, No. 1, pp. 55-66.

Table 1: Characteristics of the empirical studies on stress in relationships

	Industrial service study	Business service study
<i>Matched dyads and respondents</i>	<p><i>16 dyads</i></p> <p>Seller's side: 30 respondents (account, project and service managers)</p> <p>Buyers' side: 26 respondents (technical and purchasing managers, VPs)</p>	<p><i>29 dyads</i></p> <p>Seller's side: 57 respondents (area and outlet managers)</p> <p>Buyers' side: 51 respondents (key decision makers and buyers)</p>
<i>Potential problems</i>	<p><i>63 potential problems:</i></p> <p>37 interaction-based problems</p> <p>13 seller-based problems</p> <p>8 buyer-based problems</p> <p>5 network-based problems</p>	<p><i>44 potential problems:</i></p> <p>2 basic service-based problems</p> <p>17 special service-based problems</p> <p>25 overall relationship-based problems</p>
<i>Sampling grounds</i>	Aims to cover different customer companies and relationships based on global location and relationship type	Aims to be representative of customer types, based on size, country location, type of customer company
<i>Data gathering</i>	Personal interviews conducted by seller's representatives from the Human Resource department	Telephone interviews conducted by market research agency

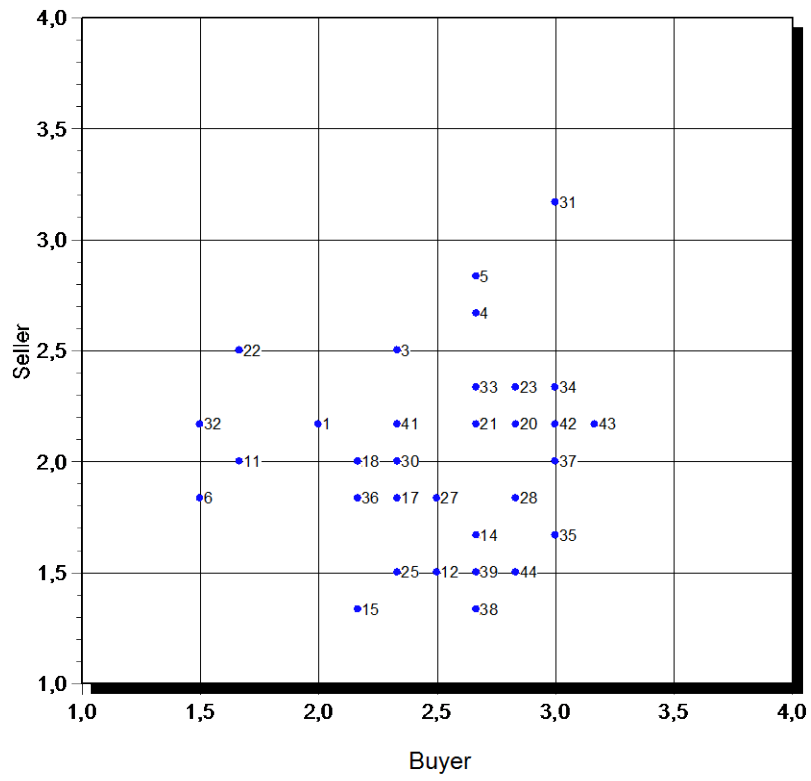


Figure 1. Problem index grid illustrating 43 critical incidents in one relationship

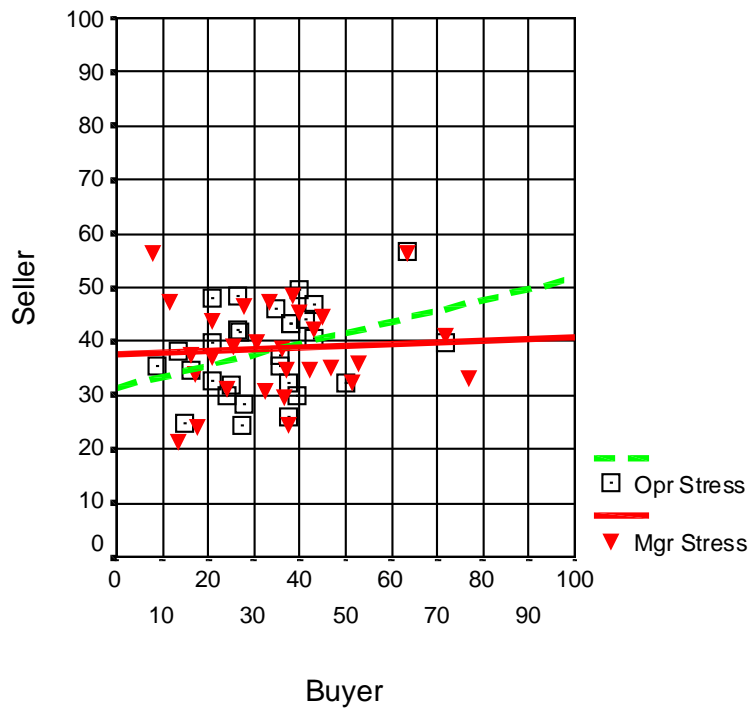


Figure 3. Correspondence of relationship stress between the manager and operator levels in the business service case