ERODING BUSINESS RELATIONSHIPS – THE SERPENTINE METAPHOR

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Competitive paper for the *IMP Conference*, Bordeaux
Date of submission: May 1st, 2014

ABSTRACT

This paper focuses on business relationship dissolution as the consequence of several subsequent incidents. Previous dissolution research has described single incidents and the present state of the relationship as decisive for relationship ending. This paper instead describes the "state" of the relationship as dynamically affected by previous incidents. These incidents may in themselves not be severe enough for the relationship to dissolve, but impact future dissolution decisions and together with later, interconnected incidents finally end up in the dissolution of the business relationship. The paper uses the serpentine metaphor of erosion to illustrate how several incidents amplify one another to eventually cause the relationship to end. Empirically, this is illustrated by how customers to a repeatedly acquired company experience incidents that made them increasingly questioning to the relationship. The paper contributes to research on business relationship dynamics through its focus on repeated incidents leading to dissolution, and through pointing to how organisational memory may make certain incidents look more severe based on how they repeat previous incidents.

Keywords: business relationship; customer; dissolution; erosion; sedimentation

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INTRODUCTION

In research on business markets, focus tends to be on how companies develop together, create ties among them, and allow for these ties to become stronger and filled with increased or new content. Such developments follow from how individual firms cannot achieve everything themselves, how they look for users to ensure revenue flows, and producers to secure input materials (O'Malley, 2003). Strengthened ties are the consequence of increased investments made into the relationship, continuous adaptations, and is driven by commitment and trust between parties (Ford, 1980; Hallén, Johanson & Seyed-Mohamed, 1991; Håkansson, Ford, Gadde, Snehota & Waluszewski, 2009). But while continuity of relationships remains the underlying assumption in most business market studies, not all relationships last.

Dissolution describes how a business relationship – in terms of on-going business transactions and company-level interactions (Ford & Håkansson, 2006) – ceases to exist (Hocutt, 1998). It refers to the final and perhaps inevitable stage of a relationship (Dwyer, Schurr & Oh, 1987; Ford, 1980). Literature depicts how a relationship dissolves as the consequence of a critical incident (Edvardsson & Strandvik, 1999). Such incidents would define the dissolving party's motive for ending the relationship. But is it only single critical incidents that breaks off a relationship? Or might it be that incidents accumulate in the mind and eventually lead to dissolution?

While previous research has considered how the present state of the relationship (e.g., the closer the relationship, the less its tendency to dissolve) impacts its likelihood to dissolve, incidents have not been described as accumulating and possibly affecting the expectations on the relationship. The paper points to how individual incidents may in themselves not be strong enough – not be critical in their own capacity – for the relationship to dissolve, but once they are added to one another, the relationship ends. The purpose of the paper is *to describe and discuss how relationship dissolution may follow from how incidents accumulate until they make a relationship dissolve.* The paper introduces the serpentine metaphor of erosion to describe how several incidents amplify one another to eventually cause a relationship to end. Relationship erosion is empirically illustrated by how customers to a repeatedly acquired company experienced incidents that made them increasingly questioning to the relationship.

The paper contributes to research on business relationships and their dissolution. Dissolution literature has focused on single incidents. The present paper instead points to how dissolution may follow from several incidents and while they at the point when they occur may not have led to any visible changes to the relationship, they impact future dissolution decisions by the customer. It further indicates how incidents that reminds a party of previous ones is perceived as more severe than if they are the first of their kind, and how dissolution may follow from quite a minor changes, rather than from what would seem as more severe incidents. This all puts the idea of critical incidents into a new light (Edvardsson & Strandvik, 1999; Flanagan, 1954).

The paper is structured as follows: The next section describes the theoretical point of departure. It deals with the longevity of relationships, and critical incidents. The research gap is indicated. Following thereafter is the research method. The empirical part of the paper consists of a single case study describing acquisitions of an IT-service provider. The case is presented and then analysed through the introduction of the serpentine metaphor. The paper ends with conclusions, managerial implications, and ideas for further research.

THEORETICAL POINT OF DEPARTURE

Long-term business relationships

Research on business-to-business markets, departs from the notion that companies engage in long-term relationships (Ford & Håkansson, 2006; Håkansson, 1982). Such relationships construct the basis for interaction and include how companies invest in and adjust to one another (Hallén et al., 1991). A continuum is created as companies turn to the same party based on such parameters as commitment, costs for changing business partner, and the specific resources offered or developed in the relationship (Ganesan, 1994; Garbarino & Johnson, 1999; O'Malley, 2003).

A company engages in several such relationships, and the individual relationships become intervened through the nodes of companies and in how one relationship may affect other ones (Axelsson & Easton, 1992). Investments in one relationship may restrict resources provided to another one, while a customer placing more orders at a supplier may have positive effects on the supplier's supplier. In the *networks* of firms, decisions may hence spread to, and incorporate also other parties (Halinen, Salmi & Havila, 1999). Literature on business networks describes such dynamics with a focus on changes in present relationships. Researchers define the continuum of adjustments, and how a company is influenced and influences other ones based on changes on the company, relationship, or network level (Håkansson & Snehota, 1995a). Literature foremost describes how these changes create the continuity of the relationship: companies develop with their relationships.

Havila and Salmi (2000) refer to this as how focus remains on incremental changes – changes that may lead to alterations in the magnitude of exchange among parties, but with an emphasis on the relationships as lasting. Havila and Salmi (2000) also indicate that limited research attention has been brought to what they refer to as radical changes: the establishment and dissolution of present relationships, and their consequent effects on the network. Ford (1980), Dwyer, Schurr, and Oh (1987), and Schurr (2007) describe the life-time evolution of business relationships, and researchers have also increasingly started to investigate why relationships dissolve (Beloucif, Donaldson & Waddell, 2005; Gedeon, Fearne & Poole, 2009; Polidoro, Ahuja & Mitchell, 2011).

Dissolution and critical incidents

Studies have described dissolution of business relationship as being based on de-selection from either party's perspective, mutually agreed, or resulting from ever decreasing interactions between the parties (Alajoutsijärvi, Möller & Tähtinen, 2000; Grönhaug, Henjesand & Koveland, 2000; Harrison, 2004; Low, 1996; Pressey & Mathews, 2003). Fading relationships refer to temporal relationships related to a

specific project or time-destined joint ventures (Peng & Shenkar, 2002). In the de-selection or mutually agreed dissolution, internal or external triggers are crucial for the dissolution decision.

Early literature on dissolution pointed to critical incidents (cf. Flanagan, 1954) as the causes for the relationships to dissolve. Such criticalities include such items as service failures (Balachandra, Brockhoff & Pearson, 1996; Edvardsson & Strandvik, 2000; Perrien, Paradis & Banting, 1995), dissatisfaction (Seabright, Levinthal & Fichman, 1992), and the loss of key staff (Hocutt, 1998). Hibbard, Kumar, and Stern (2001) indicate decreased variability in products offered as potentially destructive to a relationship, and hence mark deliberate changes that may result in unforeseeable reactions (cf. Anderson, Havila & Salmi, 2001).

More recent dissolution literature describes dissolution as the combined consequence of critical incidents and the present state of the relationship (Giller & Matear, 2001; Tähtinen & Halinen, 2002). Closeness (e.g. Blankenburg Holm, 1996; Håkansson, 1982), but also investments (Hallén et al., 1991) – that would in the case of dissolution be regarded as sunk-costs – impact the continuity of the relationship. A close relationship may be more forgiving to individual mistakes than the one underpinned by distance and weak ties. Strengths of actor-ties, commitment, and trust countervail the risks for relationship dissolution (Crutchfield, 2001; Stanko, Bonner & Calantone, 2007). Rosson (1986) points to how relationships are more vulnerable to break in their early phases of development, when the parties have not fully devoted themselves to the relationship or made any significant investments in it.

Research gap

Through describing the present relationship in terms of its *state*, the dissolution literature does not connect the relationship to dynamics (Gadde & Mattsson, 1987), nor does it refer to incidents as shaping the future states of the relationship. Peng and Shenkar (2002), Coulter and Ligas (2000), Stewart (1998), and Halinen and Tähtinen (2002) refer to the dissolution process, but then focus on the decision and action process that underpin the dissolution stage of a relationship (from the critical incident onwards) (Dwyer et al., 1987; Ford, 1980).

Incidents in an on-going relationship may however change a party's perception of it. This relates to how trust becomes questioned, how commitment weakens, and how one party perceives that the other one takes the relationship in a direction that does not benefit or meet expectations of the first party. Rather than seeing how parties develop with their relationship (Hallén et al., 1991), they may develop away from it, while continue in it. Such changes may be driven by how one party acts and the other one reacts to it and such reactions may not be visible, but result in altered expectations (cf. Håkansson, 1982), for instance. They may eventually lead to the dissolution of the relationship, but such decisions may have more to do with new minor incidents than a single critical incident that breaks off the relationship. The following questions are asked:

- How can dissolution be understood as the result of several incidents?
- How are such incidents imprinted into the relationship?
- What influence do previous incidents have on the criticality of later incidents?

METHOD

The empirical part of this paper is based on a single case study: the case of the IT-provider Verimation. The study comprises a time period when Verimation was acquired three times (cf. Shi & Prescott, 2011). The case study approach was chosen to enable the study of interconnectivity between introduced changes, reactions, and customer relationship dynamics (Halinen & Törnroos, 2005; Yin, 1994). The specific case presented here has an *illustrative* aim (Siggelkow, 2007); that is, it intends to depict the subsequent dissolution of a business relationship based on several incidents rather than provide data from which to draw general conclusions. Ideas, patterns, and findings are however expectedly transferable to other cases and settings (Guba & Lincoln, 1989; Hirschman, 1986), and for verifying purposes additional cases have been studied that indicate similar patterns.

Data was collected through interviews and written sources. The interviews were performed between 2003 and 2012 and included CEOs, sales managers, procurement managers, and IT-managers. The interviews captured the perspectives of the focal company as well as customers, and acquirers to it. Each informant was interviewed at least twice during the data collection process. The interviews were non-standardised, using an open-ended question approach (McCracken, 1988). Notes were taken and taped interviews were transcribed. The written sources consisted of newspaper items, annual reports, and internal documentation of the company, its acquirers, and customers. The newspaper review included 687 articles and aimed to provide a timeline, indicate additional customer relationships, and verify events described by the interviewees (Welch, 2000).

In the analysis procedure, interview transcripts, notes, and the written sources, were coded using a first-order coding (Pratt, 2009). This round of coding aimed to capture the overall development of the case company, its acquisitions, and customer relationships. In a second round of coding, each incident described by representatives of the acquirers, acquired party, or customers as causing changes to the customer relationships' content or expectations on it, was abstracted from the interview transcripts. The incidents were labelled to signal the type of incident, reactions to it, and relationship consequences. The interconnectivity of incidents was captured based on interview statements and the combining of perspectives using a mapping technique that linked incidents and consequences together. This step of the analysis was performed in several cycles moving between the interview transcripts, incidents as described in newspaper items, and literature with regards to descriptions of critical incidents (cf. Halinen et al., 1999), and states of relationships (e.g. Tähtinen & Halinen, 2002).

THE CASE OF VERIMATION

Verimation was founded in the mid-1980s as innovators at the vehicle-manufacturer Volvo had developed an e-mail system from a solution to detect manufacturing failures in cars. The development department of Volvo created legitimacy to the system, and due to board member contacts among several publicly traded firms in Sweden, the system managed to find users outside Volvo. The development of the system continued at Volvo, while Verimation became its sales company with a split ownership between Volvo and the telecom-company Ericsson. The system developed from having originally been an intra-company communication tool to become an inter-company e-mail system. Customers such as ABB, IKEA, SAS, SKF, and Statoil established

business relationships with Verimation, and during its first years of development, the system became the standard for e-mail solutions with the majority of the largest companies in the Nordic countries as its customers. The internationality of these customers also meant that Verimation spread its organisation abroad.

> They followed the Wallenberg sphere and all companies that had an IBM mainframe solution wanted electronic mail. Around 1990 to 1995 the main IT-systems were built on mainframe solutions. (Jan Fagerström, manager, formerly at Ericsson (owner and customer to Verimation))

With its focus on e-mail solutions, Verimation subsequently found itself out of scope of its original owners. Ericsson's and later Volvo's divestment decisions were followed by ADB Gruppen Mandator's acquisition of a majority of the ownership shares. ADB Gruppen Mandator had occupied itself with some hectic acquisition activities and Verimation became part of a group mainly engaged in IT-consultancy. ADB Gruppen Mandator had acquired Verimation to reach its customer base and in doing so, hoped to sell consultancy services parallel to Verimation's offering to the acquired party's customers. This cross-supply plan never materialised due to the customers' low interest for the product-service combination. The context was increasingly marked by competition on e-mail systems, and the increased use of PCs that made Verimation's solution somewhat dated.

ADB Gruppen Mandator's intensive acquisition activities led the company to focus less on the development of its on-going business, something that was also reflected in its management of its acquisition targets and their customers relationships. Customers such as ABB made the decision to complement their use of Verimation's systems with other e-mail solutions to decrease their dependency should the Verimation system not be around in the long term. ADB Gruppen Mandator's acquisitions also had a second consequence: the company ran into debt, in turn further limiting the development of its subsidiaries (including Verimation), and finally leading to its divestment decision. Rather than finding a new owner, ADB Gruppen Mandator chose to introduce Verimation to the stock exchange.

Taking the company to the stock exchange provided Verimation with management problems since the board elected for the company disagreed on its strategic positioning. The PC-trend and soon also Internet-based solutions severed the competition, while board decisions of Verimation maintained it in its mainframe solution. A number of partnering agreements were established to help Verimation in its development while also scoping for a diversification strategy into new systems and consultancy work. These arrangements were however not well perceived by the customers that considered it more important to focus on the development of Verimation's present system than to integrate it with an increasing number of other solutions. Customers such as Statoil and Telia left, while other firms continued to complement the Verimation system with other solutions, or increasingly questioned their choice of e-mail system.

> They lost the game before they were acquired the first time. That is my personal reflection. Things went so well that they forgot to update in time. (Ethel Milberg, responsible e-mail solutions, InfoData (customer to Verimation))

The trend among users increasingly became that of focusing on a single e-mail solution rather than supporting a broad range of different ones. In 1998, Verimation experienced its most prestigious customer loss so far. Its former owner Ericsson dissolved its business relationship with the firm. Ericsson had for some time engaged in collaborations with Microsoft, and was also experiencing a period of increased cost focus in its own operations. It centralised its IT-functions and decisions were made to only use one e-mail system. The declining development of Verimation and the attractiveness of other systems made the choice easy.

> Ericsson evaluates suppliers on a regular basis. If we are to buy something new, then we look at the company and the product, these are the main things. What future does the company have? Of course, you do not dare to build solutions on something that may not last. During the second half of the 1990s we realised that this [Verimation's system] could not last forever. We compared with IBM's Lotus and Microsoft and a simple guess, which one would last the longest? Verimation or Microsoft? The answer was quite simple; Microsoft. (Jan Fagerström)

While declining, the customer base of Verimation continued to attract investors. The company was approached with new acquisition propositions. Parallel to this, the Verimation management realised that the company could not maintain its position as a sovereign firm and needed the financial backing of a new owner. The financial situation came about as the company had costly internationalised its business, and also at a late stage focused the development to a PC-solution.

In the continued belief that Verimation would provide interesting customers to its acquirer, the IT-reseller NetSys acquired the firm. NetSys was the Nordic reseller for a software solution developed and owned by a Canadian company. It brought an aggressive management style to Verimation that turned the employees against its new owner.

NetSys planned for the replacement of Verimation's system, a steep rise in prices to finance its own losses, and also the acquisition of the owner to the solution it itself provided. These activities happened half a year following the acquisition of Verimation and caused reactions among employees and customers. It also had consequences for Verimation's ability to develop its system. While Verimation's staff alienated themselves from NetSys and allied with their customers to keep the Verimation system, their room to act was limited.

> We continued with our business, but with limited acceptance from the management team, which meant that product development came to an end. The contact with [our] customers was directed at steering them to choose NetSys' product, which meant that the discussions with customers and the marketing of [the Verimation system] also came to an end. We were meant to sell the other product to our existing customers to use the customer relationships. (Peter Johansson, sales manager at Verimation)

Customers such as IKEA severely started to reconsider their choice of e-mail solution, while it continued to use Verimation's system based on the close relationship with its support staff and with the back-up plan to temporarily take over the maintenance of the system should it be replaced or closed down. The contact persons of IKEA however declared that they did not want to have anything to do with the owner NetSys.

> I was told that: "You have to make sure that we do not get any visits from anyone from NetSys. You are greatly welcome, but none of them. We do not want them here." And that is not funny after having had a customer relationship with IKEA since 1985. (Peter Johansson)

Other customers that had started to question their choice of e-mail system at the time of ADB Gruppen Mandator's acquisition and the increased competition from other systems, that had introduced additional systems for their use, and that had become hesitative due to the lack of development during Verimation's time at the stock exchange, now made the decision to dissolve their relationships with Verimation. The former owner Volvo, which during Verimation's time at the stock exchange reinvested in the company, was among those that decided to leave. Volvo did not leave with dissolving the relationship, but also decided to challenge its former system through developing a solution that would enable other customers to replace Verimation's system with their own choice of solution: Microsoft.

> First [Verimation's system] was abandoned by Ericsson, and now also by Volvo, the company that made [Verimation's system] important in the world. Above all, Volvo is participating in a project to quickly kill its old darling. In an alliance with the IT-consultant Guide and Microsoft. … Volvo has evaluated NetSys' products but the Mölndal company was never a serious challenger for the million contract valid for both companies in AB Volvo and Volvo Cars. (Genborg, 1999)

The loss of Volvo and Ericsson as customers inflicted other customers' choices. They saw the threat of the decreasing customer base, but also of the financial problems caused by it. Many customers left at the time, while others continued to question their choices. To come to terms with the financial problems, NetSys launched a program of cost reduction, including the layoff of staff. This however only increased the customers' worries. Two thirds of Verimation's former customer relationships had been dissolved at this point.

> The layoff of staff and at the same time many of the large companies in Sweden left Verimation. It was Ericsson and Volvo, and others. The discussions started again here. This was one of the reasons for things not going well for them: many others converted to other systems. (Tord Åkesson, IT-manager, IKEA (customer to Verimation))

The finances of NetSys turned so bad that it was finally declared bankrupt. The bankruptcy included Verimation. This was the consequence of the company never having managed to reach profitability in its business. It was also impacted by how NetSys had placed a summons on the Canadian company that owned the solution it was the Nordic reseller for. The summons was intended to decrease the value of the Canadian firm's shares and thereby make them attainable for NetSys to acquire. This idea backfired and NetSys found itself being charged with legal claims. The bankruptcy meant new questioning of Verimation as a supplier. IKEA once again evaluated the firm and now started to see Verimation as a short-term solution rather than something it would continue to use in the long-term perspective.

The bankruptcy however also meant that Verimation was freed from its previous owner. The bankruptcy trustee put efforts on selling Verimation, and contacts between its remaining employees and Technology Nexus, resulted in that Nexus put a bid on the firm. Nexus was focused on IT-security solutions and saw the potential of integrating

such solutions to the Verimation system. It also considered the remaining customer base of Verimation as attractive for its own business. Verimation was soon integrated with Nexus on administrative levels, but kept as a separate system. The acquisition happened at the time of increased turbulence in the IT-sector.

The new owner, Nexus, ran into profitability problems during the ups and downs of the IT-sector. As this happened, the remaining customers of Verimation started to question their supplier again.

> There is a larger amount of suspicion from the customer side listening to an offer. More questioning. More discussion about where the company is heading, who is on the board, when is the next interim report. So there is much more attention to these things, and less attention on the company offering. The company's status is focused on; will you be around tomorrow? (Mikael Jacobsson, formerly CEO, Technology Nexus)

Additional customers decided to dissolve their relationship with Verimation as a consequence. One of those that made such a decision was InfoData. Its choice was also influenced by the fact that the company had recently been acquired by Schlumberger Group.

ANALYSIS: ERODING BUSINESS RELATIONSHIPS

The timeline of Verimation could be divided into five main incidents and a number of underlying incidents. Figure 1 summarises these incidents.

As indicated by Figure 1, the different incidents are interconnected in how one incident may lead to a new one. From the customer perspective, they all potentially impacted their view on the customer relationship, changed future expectations, or even meant that the customer through its reactions imprinted changes in the relationship: through adding other suppliers, decreasing the use of the system, and eventually dissolving their relationship. Each incident and manifestation of change could be seen as a driver for the future dissolution of the relationship, while they themselves did not cause the relationship to end in their own capacity. In that sense, they would not be "critical" (Flanagan, 1954), while they either led to latent or visible changes that weakened the relationship. Final incidents are the ones that would have been referred to as critical in how they caused the dissolution from a traditional way of describing dissolution (Edvardsson & Strandvik, 1999; Holmlund & Strandvik, 1999). But, they need not have been the most critical in how they may not have challenged the relationship the strongest. Rather, they became the dissolving incidents based on former ones. The relationship could hence be seen as "eroding" from several incidents until it finally dissolved, and to frame this idea, the serpentine metaphor is introduced below.

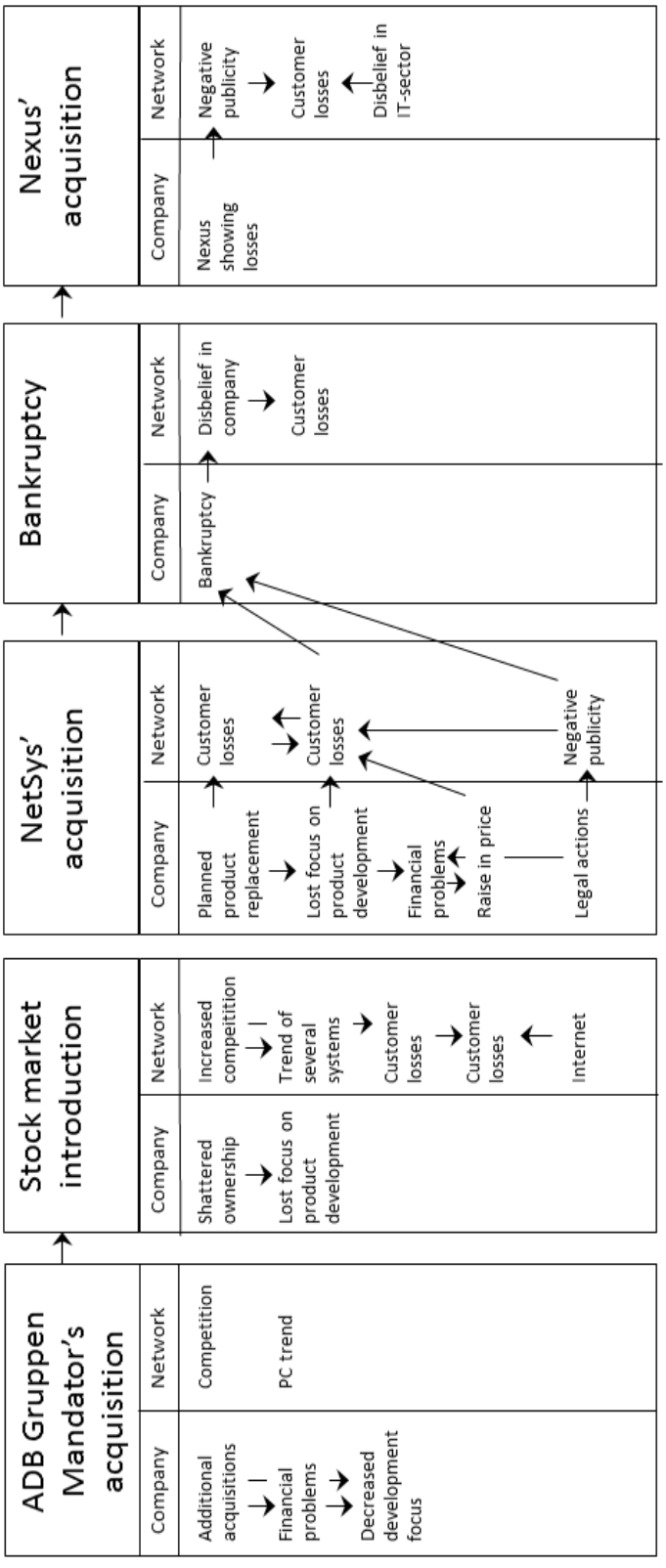

Figure 1: Incidents and their connection in the Verimation case. 'Network' refers to changes external to Verimation and its owners, 'Company' to deliberate and unintentional changes caused by Verimation or its owners.

Eroding business relationships – The serpentine metaphor

In the geological development of rivers, erosion and sedimentation are two factors that co-exist and lead to changed water flows. Erosion describes how forces weaken a present shape, sedimentation how previous shapes are disabled. When erosion and sedimentation are in equilibrium, the river is in a steady state and there are no forces for it to change its shape. If disturbance causes the water to travel at different velocities on either side of the river, the equilibrium is skewed and erosion occurs on the side where the water runs the fastest, while on the slower side, soil will sediment, and the river will become narrower. This in turn creates a curve on the river. The creation of such a curve weakens present flows. The curve speeds the water up to create additional curves. Such additional curves create a serpentine-shaped river. As the erosion continues in the curves of the river, water will eventually take a new path forming a straight direction (a perimeter path) between two previous curves. Such parameters as gradient, soil density and composition, and rainfall impact the intensity of erosion and sedimentation.

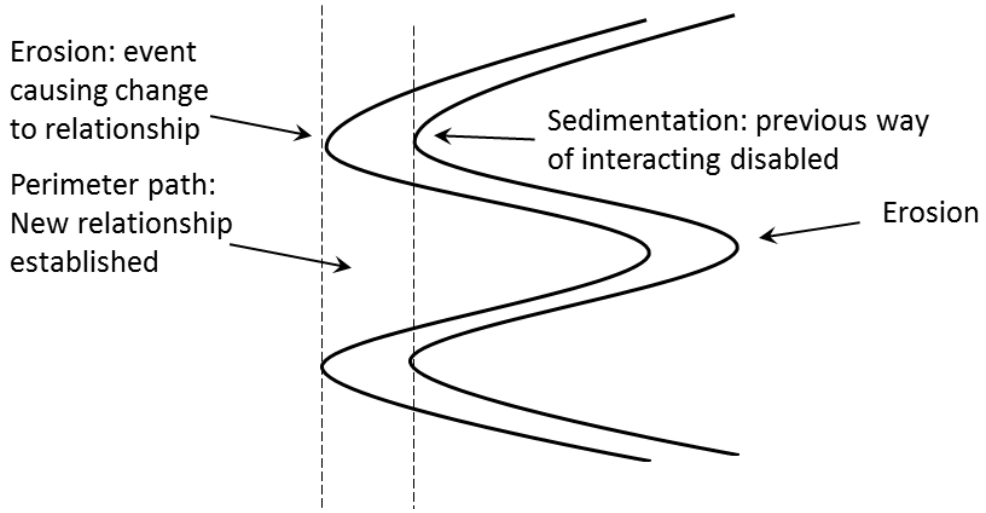

Figure 2: The serpentine metaphor.

The serpentine (see Figure 2) here creates a metaphor for continuous changes to business relationships and their effects. The equilibrium describes how a business relationship "flows" without disturbances: it is based on stability and power-balance between actors (Emerson, 1962; Freytag & Ritter, 2005; Gadde & Mattsson, 1987). Erosion defines ever weakened relationships. Such weakening of relationships is in the present paper described as how several sequential or parallel changes are induced on a relationship that causes it to weaken in the eyes of the customers. Each curve on the river defines such a new incident. The causing of new curves, illustrates how one change may cause additional ones. Increased erosion in present curves describes how a previous incident may stick to the memory of the customer.

The *eroding factors* include acquisitions, decreased focus on product development, price raises, financial problems of supplier (or the supplier's owner), legal actions, bankruptcy, but also exogenous factors such as increased competition, new technological trends, other customers' dissolving their relationships with the supplier, negative exposure in media, and disbelief in the sector of the supplier (based also on other firms' mistakes). Most of the individual incidents have been mentioned in

previous research on dissolution. Halinen et al. (1999) for instance refer to acquisitions and bankruptcy, Hocutt (1998) to viable options (here described as competition), Stewart (1998) to quality decline (here mainly related the lack of product development), Halinen and Tähtinen (2002) to costs and poor performance (here: price raises and the disability to manage the company), and Håkansson and Snehota (1995b) to uncertainty (here: the questioning of the long-term existence of the company). However, they have there been seen as critical in their own capacity, not as incidents that erodes the relationship in terms of expectations or similar.

Sedimentation in the metaphor refers to how one party takes such actions that previous ways of interacting are disabled. The inclusion of new actors as suppliers, the decreased use of the system, and divestments that terminated ownership ties sedimented relationship changes. These reactions became visible effects of the incidents that affected the relationship, and made imprints on the relationship that increased the likelihood for its dissolution. The customer's active choice against the current system made it less likely that the customer would return to the supplier in whole, for instance. Instead, other suppliers in the network increased in importance to the customer. The sedimentation also describes effects in relationships that became visible to other customers and impacted their future decisions.

For each relationship (apart from such relationships as the IKEA one that remained), the final sedimentation was the customer's dissolution of the relationship. The dissolution could be described as a change that followed from the existence of a simpler path than the present one – the *perimeter path* causing a straight flow of water instead of the one consisting of several erosion curves and possible sedimentations. This is in the case illustrated by how each customer chose another e-mail solution and hence replaced its previous relationship.

Those parameters impacting the degree of erosion and sedimentation (gradient, soil density and composition, and the rainfall) refer to the severity of the incidents as endogenous (gradient, soil density and composition) and exogenous (rainfall) factors (Elo & Törmänen, 2003; Halinen et al., 1999).

The metaphor is a means to depict how a relationship continuously weakens based on incidents that changes attitudes and interaction behaviours. It underlines how several incidents may add to one another and dynamically transform the 'state' of the relationship, and adds to research on dissolution through pointing at incidents as eroding and sedimenting, respectively.

Erosion and sedimentation in individual customer relationships

Looking at the incidents outlined in Figure 2 from the perspective of individual customer relationships in the case study, it points to how several endogenous and exogenous factors eroded each relationship. To exemplify: the telecom-company *Ericsson* had established its business relationship with Verimation as it became its partial owner. The relationship was close and included some development projects performed by Ericsson. Ericsson also acted as a reference customer to Verimation. The first erosion incident was ADB Gruppen Mandator's acquisition, which also meant that Ericsson's ownership of Verimation ended. ADB Gruppen Mandator's additional acquisitions and the decreased focus on development eroded the relationship further.

Ericsson started to look for solutions to complement Verimation's system. The exogenous factors of the increased number of alternatives and the development towards PCs made Verimation an increasingly less attractive choice.

Verimation's introduction on the stock exchange, which meant that the board of the firm worked in opposite directions and led to an ever decreasing focus on product development, eroded the relationship further. Ericsson invested in additional e-mail systems and thereby sedimented its declining relationship with Verimation. Other customers starting to leave Verimation meant that Ericsson became increasingly hesitative. Verimation failing to meet the Internet trend, Ericsson's centralisation, and its cooperation with Microsoft functioned as further eroding incidents. Ericsson soon went from the use of several e-mail systems to the use of a single one: Microsoft. The customer relationship with Verimation was thereby ended and Ericsson starting to use Microsoft's e-mail system as a company standard describes a perimeter path.

The vehicle-manufacturer *Volvo,* which was the spin-off base for Verimation, demonstrates a similar journey of eroding incidents and final dissolution. Volvo decreased its focus on Verimation as it divested it to ADB Gruppen Mandator. This also meant that Verimation lost much of its former product development capacities. ADB Gruppen Mandator did not have as much focus on Verimation's further development. Eroding incidents included the decreased product development that followed from that acquisition, ADB Gruppen Mandator's additional acquisitions, the problems during the time at the stock exchange, and then finally NetSys' acquisition of Verimation. When NetSys decided to replace Verimation's system with its licensed solution, Volvo made a final evaluation of its supplier and decided to dissolve its relationship with it. Volvo further sedimented this relationship ending through engaging in a project to help other customers shift away from Verimation's system.

Compared to Ericsson, Volvo had put less focus on the transfer to PCs and Internet solutions, and more so to the functionality and lack of new features of the Verimation system. Hence, while similar incidents eroded the relationships, Ericsson was much more affected by exogenous factors and evolutions that were closer to its own technology focus. Both Ericsson and Volvo indicate how the customers sedimented their decreased interest to Verimation when they divested their shares in the company. This indicates how sedimentation may well precede erosion. The divestments had negative effects for the development of Verimation and its system, which in turn eroded the relationships.

A third customer relationship that was challenged with a number of eroding incidents was the one between Verimation and the IT-provider *InfoData*. This relationship was established as one of Verimation's first external customer relationships. It went through all of the incidents mentioned above and these incidents eroded InfoData's relationship with Verimation in each stage. The customer relationship however continued beyond NetSys' acquisition, its legal actions, and the price raise. Each of these incidents eroded the relationship further, however. InfoData went from using Verimation's system both as an e-mail system and a solution to build its own applications on, to only use it in the latter sense. This was sedimented at about the time of NetSys' acquisition. When NetSys and thereby Verimation went bankrupt, InfoData's relationship went from declining to shaky, but InfoData continued its relationship also following that incident. When the new owner Nexus started showing losses, the history of previous incidents

meant that the relationship faced its greatest challenge. While the incident as such was less severe than the bankruptcy, reactions to it were stronger. The relationship was dissolved following that announcement; a decision also affected by Schlumberger Group's acquisition of InfoData.

Individual relationships hence experienced similar incidents, but dissolved at different times. *Statoil* and *Telia* were among the first customers to leave, and were followed by such companies as Ericsson, Volvo, and eventually InfoData. One relationship that lasted through all incidents, yet continuously re-evaluated and weakened, was the relationship with *IKEA*. Such parameters as IKEA's ability to take over the administration of the system made it less vulnerable to Verimation's declining status.

To summarise and reconnecting to the metaphor, most incidents had a negative impact on Verimation's customer relationships. The relationships became increasingly distanced, often complemented with alternative ones, and also more and more questioned by the customers. Memories such as the NetSys bankruptcy impacted future evaluations and became the more amplified as, for instance, the new owner (Nexus) started to show losses. Customers complementing their relationship with Verimation with other e-mail suppliers made it increasingly easy for them to change suppliers. And the distance created based on the lack of product development, price raises, and financial problems, for instance, made customers more inclined to eventually dissolve their relationships with Verimation as the relationship at the dissolution point was already weak and distant (cf. Stanko et al., 2007). Customers sedimented changes to their relationships through spreading their risks to other suppliers, ending their ownerships, decreasing their areas of use of the system provided, and dissolving their relationships.

CONCLUDING DISCUSSION

The serpentine metaphor of erosion and sedimentation illustrates how a relationship is impacted by incidents that weaken/erode it. Measures taken as reactions to such incidents sediment the changes (e.g., the choice to complement the present supplier with a new one) and make it less probable that the magnitude of exchange will increase again. The water flow in the metaphor depicts the interconnectivity of incidents: how one eroding incident leads to new ones (e.g., additional acquisitions led to financial stress and less focus on product development). Further erosion at previous places portrays how history continues to affect the attitude to the relationship and also leads to additional and more severe incidents and reactions ahead (reactions to financial problems of new owner was also a reaction to previous bankruptcy). Soil density, composition, and gradient describe endogenous factors that also transfer the impact of previous incidents into future ones. The rainfall illustrates exogenous factors (e.g., the development in the IT-sector, and the establishment of new e-mail providers) and their intensity to the relationship. The perimeter path describes how the relationship is finally exchanged for a new one.

The theory section raised three questions, which answers help to shed new light on dissolution of business relationships. *How can dissolution be understood as the result of several incidents?* Dissolution can be understood as a series of incidents that make a party increasingly questioning to the relationship, while they do not themselves cause the dissolution. *How are such incidents imprinted into the relationship?* Such incidents

may result in sedimenting actions, but may also remain hidden and only memorised by the organisation. *What influence do previous incidents have on the criticality of later incidents?* Previous incidents, whether or not they result in any visible actions or reactions, continue to erode the relationship and increase the vulnerability for future dissolution. Particularly, future incidents that repeat previous ones in themes, increase the likelihood of dissolution, and a future incident may be quite minor, while still leading to the final dissolution, based on how previous incidents have worn out the relationship. An incident connected to the core business of the business partner is also perceived as more severe than one that is not.

Theoretical implications

Previous research on dissolution has stressed critical incidents as decisive for relationship ending (Hocutt, 1998). The singularity of these incidents suggests that they are each severe enough to make the relationship dissolve (Edvardsson & Roos, 2001). This present paper instead describes *incidents as interconnected with an eroding impact on the relationship*. An incident may hence impact future dissolution decisions and together with later, interconnected incidents finally end up in dissolution of the business relationship. The paper also indicates non-incidents (the lack of development; the decreasing competitive edge) as factors increasing the likelihood for dissolution. It is not the severity of the single incidents, but how they impact the relationship in that one incident follows another one and leads to an ever weakened relationship that is the central message here.

The incidents are considered *more severe if they are associated with the business of the interaction partner*. Failures to follow the technological development are for instance seen as more of a breaking-point for a customer in the field of technology advancement. The incidents are also considered as *more severe if they remind the interaction partner of previous incidents*. Incidents sharing 'themes' such as being related to financial difficulties (the bankruptcy and profitability problems, respectively) are more critical than those introducing new types of issues. Among the eroding incidents, bankruptcy would be considered as more severe an incident than the owner showing losses (Halinen & Tähtinen, 2002), and the replacement of products expectedly would lead to higher likelihood for dissolution than the owner's additional acquisitions. However, dissolution followed from such less severe incidents, while relationships remained after the more serious ones. The customers became increasingly vulnerable to new negative incidents, and the decisive ones may well be very limited in their actual consequences for the relationship, but were the breaking-point for it.

In addition to its emphasis of critical incidents, research on dissolution has put focus on the present state of the relationship (Tähtinen & Halinen, 2002). Strong relationships are expectedly more resistant to critical incidents than underdeveloped or distant ones (Crutchfield, 2001; Giller & Matear, 2001). Young relationships are more vulnerable to change than established ones (Rosson, 1986). The present paper instead puts focus on *the relationship as dynamically impacted by those incidents that change it*. The dissimilarity to fading relationships as described in previous research (Grönhaug et al., 2000), is the present focus on how incidents erode the relationship, while fading relationships describe ever-decreasing exchanges in a vanishing mode of relationship change. The dynamics of the relationship as described here include how incidents increase its vulnerability. The present paper hence links 'states' of relationships with

incidents that affect it and thereby bridges these items to create an interconnection between them. Figure 3 compares previous dissolution research to findings from the present paper.

	According to previous research	As described here
Event	Single critical events/incidents	Several interconnected events and processes Related to knowledge of interaction partner Repeated/reminding
Relationship	State of relationship Weak and newly established relationships	Dynamically affected by events and processes Erodes also in retrospect

Figure 3: Comparison to previous research.

Managerial implications

The key message of eroding customer relationships is how early incidents may affect later dissolution decisions. For the supplier it is imperative to be sensitive to any type of reaction from the customer. Communication with customers helps to get an early notification on issues of their concern, and also possibly to smoothen incidents that have made them reluctant to the supplier. Questions that are important at any time of change, are whether the customer has articulated any wish for the change, any objections to it, how it affects the customer interfaces, and whether the benefits of the change (from the supplier perspective) is greater than those customer reactions that may follow from it. Later dissolutions may need to be calculated for as lagged effects when evaluating different business options.

Limitations and further research

This paper has shed some light on how incidents of change may erode a business relationship until it dissolves. The empirical findings indicate how incidents are interconnected, how different parties choose different dissolution points, and how the relationships become increasingly vulnerable to new incidents. Qualitative and quantitative studies are important to penetrate the research area more fully, and to conclude at generalisable findings.

One research question of interest is that of whether eroding relationships may recover or if they are deemed to ever declining states. Another question of interest is the further spread of dissolution, where this paper focused on customer relationships to the case company, but where their relationship ending could be expected to carry consequences for their customer relationships, other suppliers, and even competitors (cf. Bengtsson & Kock, 2000; Havila & Salmi, 2000; Hertz, 1998).

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