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An exploration of relationship ending: Some strategic implications from the optical recording media industry

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Abstract

This research investigated relationship ending from an interactive view of interfirm relationships on strategy. In order to understand how relationship ending can be exercised to achieve strategic goals and how the ending of relationships impact the network of which a firm is part, this research adopted a focal net perspective and collected 72 interviews as the main source of the data to construct the evolution of the focal net driven by technological change. The evolution of the focal net was marked by three net reconfigurations where the endings of relationships were observed. Towards these empirical examples of relationship ending, a discussion of relationship ending in terms of its strategic significance, its impact and its exercisability was provided.

Keywords: Interfirm relationship; Relationship ending; Resources

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1. Introduction

Utilising interfirm relationships has been validated as a crucial means to pursue or enhance firm competitiveness in business networks formed by these relationships (Dyer & Singh, 1998; Gulati *et al.*, 2000; Håkansson & Snehota, 1989; Lavie, 2006). The literature also calls for a prudent management of interfirm relationships, with regard to relationship life cycle, portfolios of relationships and the structure created by relationships (Dwyer *et al.*, 1987; Mattsson, 1987; Möller & Halinen, 1999; Tsai, 2001; Zaheer & Bell, 2005). Among the relevant studies, relationship ending receives increased attention (Tähtinen & Halinen, 2002; Tähtinen & Havila, 2004). However, this scholarly attention remains away from strategic management. The purpose of this paper is thus to make a step further to investigate strategic implications from relationship ending. In particular, we attempt to address the following questions:

- How can relationship ending be utilised to achieve or enhance a firm's competitive advantage?
- And, how such relationship ending impacts the configuration of the network of which the firm is a part?

Existing research on relationship ending, as Tähtinen and Halinen (2002) indicate, is still diverse in terms of disciplinary background and terminology used. The attention of these studies is mainly focused on factors affecting relationship ending (Ping, 1995; Stewart, 1998; Tuusjärvi & Blois, 2004) and the ending process, in which the model of relationship ending process developed by Halinen and Tähtinen (2002) can be see as the seminal work. Based on Hirschman's (1970) typology of voice, exit and loyalty, some researchers propose a number of communication (or intervening) strategies that could achieve different consequences of relationship ending (Alajoutsijärvi *et al.*, 2000; Hibbard *et al.*, 2001). The interest of research on relationship ending also includes restoring relationships through analysing attenuating factors (Tähtinen & Vaaland, 2006) and achieving satisfactory result from ending a relationship (Giller & Matear, 2001; Pressey & Qiu, 2007).

Despite extant studies that advance the knowledge of relationship ending in business contexts, little is reported on the strategic implications of relationship ending. Nevertheless, the factors that occasion the ending of interfirm relationships are usually related to the performance of involved parties, such as profitability, customer satisfaction and capabilities of innovation (Afuah, 2000; Harrison, 2004; Tuusjärvi & Blois, 2004). Moreover, a good relationship at a point in time may become a burden (e.g. preclusion of opportunities) to the counterpart at another point in time

(Håkansson & Snehota, 1998; Uzzi, 1997), imperiling the relationship. An ended relationship may also be reactivated because of the sediments or energy (e.g. interpersonal ties) accumulated from the past interaction (Havila & Wilkinson, 2002). These studies complement a life-cycle point of view of relationship management and the understanding of network dynamics in which a firm's competitiveness resides (Dyer & Singh, 1998; Halinen *et al.*, 1999; Möller & Halinen, 1999).

In spite of realising the importance of relationship ending to a firm's competitive advantage, it requires more efforts to investigate strategic implications from such an ending. For instance, in the face of technological change, relationship ending seems to be an important part of a firm's reallocation of resources that allows the firm to tide over the change (Afuah, 2000; Christensen, 1997; Moriarty & Kosnik, 1989).

Explicitly, Ritter and Gemünden (2003) argue that the ending of an interfirm relationship can be one of strategic options of handling relationships that determines the success of technological innovation. Thus, it is imperative to investigate the exercisability of relationship ending for attaining competitive advantage and the impact of such an ending on network configuration in which the firm is a part.

The paper continues as follows. Firstly, we provide an interactive view of interfirm relationships on strategy. Secondly, we rationalize the adoption of a cased-based and qualitative approach for empirical investigation. We then present a

case which is grounded in the optical recording media industry and which is based on a processual analysis. Finally, we conclude the paper by offering a discussion of theoretical contribution and managerial implications.

2. An interactive view of interfirm relationships on strategy

The resources and capabilities that a firm requires to improve or maintain its competitiveness (e.g. through innovation) reside in interfirm relationships which constitute a network (Afuah, 2000; Araujo *et al.*, 2003; Håkansson & Snehota, 1989; Powell *et al.*, 1996). That is to say, a firm needs to view its activities and resources as part of an aggregate structure embedded in a broader environment in which they are developed in relation to other activities and resources of connected firms (Gadde *et al.*, 2003; Jarillo, 1988; Lavie, 2006; Möller & Rajala, 2007). Such an interfirm structure (business network) is self-organised and adaptive to better knowledge-rich environments (Achrol & Kotler, 1999; Wilkinson & Young, 2002).

A business network exits in a state of flux. Given that a network consists of interfirm relationships, it is the dynamics in the interconnected relationships (namely, relationship dynamics) that result in such flux (network dynamics), affecting the competitive stance of a firm. From a life-cycle perspective, an interfirm relationship may go through a numbers of stages, from its birth to maintenance, declination and

dissolution (Dwyer *et al.*, 1987; Ford, 1980). This view of relationship development is not deterministic, implying that a relationship may not exactly follow the order of the stages or reach certain phases at all. Additionally, network dynamics can result from a relationship's positive or negative influence on its directly and indirectly connected relationships (Anderson *et al.*, 1994).

Relationship dynamics, especially radical changes in interfirm relationships, are crucially important to a firm's competitive stance. The establishment or ending of a firm's relationships will alter its network position, in terms of its relative importance and function performed for the counterparts (Mattsson, 1987). This positional change also signifies that the interfirm structure characterised by systematic combinations of resources has been renewed (Håkansson *et al.*, 2009). Maintaining network position, which can be achieved by handling relationship dynamics, allows a firm to gain access to new knowledge and facilitate its exploitation of internal capabilities; and thus, enhances its performance (Tsai, 2001; Zaheer & Bell, 2005).

The importance of interfirm relationships in strategic management is synthesized in the work by Baraldi *et al.* (2007). The authors conduct a theoretical comparison of an interaction perspective on strategy with five important schools of thought in strategy: Ansoff's (1965) rational planning, Porter's (1980) positioning, Barney's (1991) resource-based view, Mintzberg's (1994) organic, incremental strategy and

Whittington's (2003) strategy as a social practice. Their work sheds light on several distinctive features of the interaction perspective on strategic thinking. First, actors which are embedded in a complex network of organisations can act on their own with a certain degree of freedom given by the interdependence structure; however, this freedom is constrained by the actions of others in the network. Second, this interaction perspective accentuates a firm's network position whose uniqueness and competitiveness depend on how the firm relates to others in its networking environment where conflict and cooperation co-exist. Third, the interaction perspective considers the firm's relationship portfolios and its network as vital components in strategy formulation in which an organic view of the interplay between gaining knowledge, generating action and achieving commitment is emphasized. Fourth, strategising activities are performed by individual managers or practitioners within and across organisational boundaries in the process of relating their activities and resources to others', which is characterised by learning by doing.

It would be generally agreed upon that relationship ending is important to a firm's strategy formulation. As extant evidence reveals (Dyer & Singh, 1998; Håkansson *et al.*, 2009; Lavie, 2006), interfirm relationships are seen as a vital resource entity in which their linking function allows heterogeneous resources across firm boundaries to be systematically combined for the purpose of value creation, such

as innovation. Put it differently, an ending of interfirm relationship will lead to the reconfiguration of an aggregate structure, known as a strategic network (Gulati *et al.*, 2000; Jarillo, 1988) or value constellation (Normann & Ramirez, 1993), and thus affect how resources are used individually and collectively.

The ending of interfirm relationships as well as the establishment of a new relationship and the reactivation of an ended relationship, which are viewed as radical changes of relationships, can bring about network dynamics where resources are mobilised and reconfigured (Halinen *et al.*, 1999; Möller & Halinen, 1999; Wilkinson & Young, 2002). These radical changes of relationships not only redefine the boundary of a firm but also alter the firm's competitive stance in a network (Araujo *et al.*, 2003; Mattsson, 1987; Zaheer & Bell, 2005). That is to say, relationship ending is strategically important to a firm's performance which hinges on how the resources of the firm are used and combined in relation to other resources.

However, it appears to be that the existing attention of utilising relationships to achieve competitive advantage is focused on establishing new relationships, rather than ending existing ones. For instance, the work by Harryson *et al.* (2008) exhibits that successful innovation requires a certain level of exploration of new capabilities and complementary resources via weak ties or new relationships while exploiting existing resources that reside in established relationships. Being able to end a

relationship or handle an ended relationship should be part of a firm's ability of staying competitive in the network economy. This is as Ritter and Gemünden (2003) suggest that "a firm's ability to initiate, handle, use, and terminate interorganizational relationships becomes of central importance" (p. 745).

3. Research methodology

A cased-based and qualitative approach was opted to carry out empirical investigation for this network research (Halinen & Törnroos, 2005). This approach was considered appropriate for dealing with "how" questions developed in this research (Yin, 2009). More importantly, relationship ending is best understood from a processual point of view, suggesting that time and temporality have to be taken into account (Halinen & Tähtinen, 2002; Halinen & Törnroos, 2005). In addition, the study of strategic implications resulting from relationship ending needs to be placed in a network setting because an ended relationship could positively or negatively impact a firm's portfolios of relationships (Anderson *et al.*, 1994; Möller & Halinen, 1999; Zolkiewski & Turnbull, 2002). While the attention of the research is focused on the patterns of connections that created network processes, quantitative research methods based on the sampling theory are never likely to be applicable (Easton, 1995).

The investigation into relationship ending was facilitated by a focal net

perspective. The adoption of a focal net perspective was under three considerations. Firstly, the focal net of this research took into account the focal actor's important relationships that affect how value was co-produced (Alajoutsijärvi *et al.*, 1999; Jarillo, 1988; Möller & Rajala, 2007). Secondly, the focal net consisting of the focal actor's supplier relationships and customer relationships was able to illustrate the focal actor's network position which signified its dependence on other resources (Mattsson, 1987; Wilkinson & Young, 2002). Thirdly, the focal net captured the characteristic of connectedness in which influences of individual relationships were bridged (Anderson *et al.*, 1994; Halinen *et al.*, 1999).

The construction the focal net was grounded in the optical recording media industry. This industry suited the need of this research mainly because the industry had undergone three major technological changes which resulted in radical changes of interfirm relationship, including relationship ending. These three major changes are from CD-R to 1) DVD-R and DVD+R, 2) DVD-R DL and DVD+R DL and 3) HD DVD-R and BD-R¹. The focal actor (F) was a Taiwan-based maker of optical recording media. The focal net members included F's business customers (C1, C2,

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¹ R in CD-R, DVD-/+R, DVD+/-R DL, HD DVD-R and BD-R is the abbreviation for "recordable". DVD-R and DVD+R are competing formats where the former is developed by the DVD Forum (an international organisation aiming to develop, disseminate and verify their formats) while the latter is developed by the DVD+RW Alliance (an international organisation which has similar goals to the DVD Forum). While DL stands for double layer (simply means double recording capacity), BD refers to blu-ray disc which is a competing format to HD DVD-R (HD refers to high definition) and which is developed by the Blu-ray Disc Association led by Sony. BD-R is a competing format to HD DVD-R which is developed and promoted by the DVD Forum.

and C3; all based in Japan) and suppliers (S1, S2, and S3; in which S1 is based in Swiss while S2 and S3 are based in Taiwan). The focal net centred by F is presented as Figure 1.

Figure 1 here (prod e.g. sputtering targets)

72 interviews and archival materials were collected to depict the evolution of focal net which was marked by net reconfiguration driven by technological change.

These interviews were carried out with managers from the focal actor (F), its net members and other companies which had relationships with S1, C1 and C3. These interviews were undertaken in three stages, which covered a time period from late 2007 to mid 2009, and between which relevant literature was reviewed. This iteration between theory and empirical data permitted the adjustment of research boundary from a dyadic level to a network level, which enriched the analysis of relationship ending (Dubois & Gadde, 2002).

The data analysis began with organising and reading through interview transcripts; and at the same time, consulting company documents, industry reports and market intelligence. This analysis was facilitated by taking research memos which were the researcher's brief analytical notes. With these memos theoretical

understanding towards relationship ending was refined. A particular emphasis in the data analysis was on identifying significant events that occasioned the ending of interfirm relationships in the evolution of the focal net. The events produced change forces that affected the development of focal relationships and thus impacted on the configuration of the focal net (Schurr *et al.*, 2008). These significant events were arranged in a chronological sequence and their causal relationships, including the influences of time and temporality, were studied (Yin, 2009).

This research has two limitations. Firstly, the research draws on a purposeful and artificial boundary to conduct empirical investigation. However, while a boundary is delimited, our understanding of the real world in constrained. Second, this research presents a subject view on relationship ending although it is built on dyadic views of interacting parties. It has to be stressed that the aim of this research is to advance the knowledge towards relationship ending in a network setting rather than achieving the generalisation of empirical findings.

4. The case: relationship ending marked the evolution of the focal net

4.1 The formation of the focal net

After the initiation of supplier relationship with S2 in the late 1990s, F built their

business customer relationships with C1, C2 and C3 respectively in late 1998, late 1999 and early 2000, by signing OEM business agreements. The key for F to gain OEM orders from these customers lay in their R&D and manufacturing capabilities in terms of 1) developing dye materials² used in C1's and C3's CD-Rs; 2) handling C2's key materials and process for C2's CD-Rs; and 3) managing mass production in an efficient and effective fashion that met their business customers' requirements. The cooperation with these customers, on the other hand, allowed F to pursue economies of scale and enhance its knowledge of production management and product marketing.

In order to enhance their knowledge of dye materials and diversify its CD-Rs, F introduced S1's dye materials into their manufacturing systems near the end of 2000. Additionally, F further set up S3 in August 2001, which specialised in the manufacturing of disc-packaging cases and providing packaging services. This supplier relationship with S3 permitted F to create added value for their business customers by satisfying their needs at the end-user markets. Thus, the focal net consisting of customer relationships and supplier relationships appeared in late 2001.

4.2 Three reconfigurations of the focal net resulting from relationship ending

² Dye materials, chemical compounds, are key materials in optical media manufacturing that will determine the yield rate of mass production and product quality (e.g. the compatibility with optical drives and readability of data stored on each piece of disc after recording/burning).

During a period of time from 2001 to 2008 the focal net undergone three reconfigurations of the focal net driven by technological change. As shown by Figure 2, each reconfiguration resulted from radical changes of relationships within the net, especially the ending of relationship.

4.2.1 The first reconfiguration of the focal net in early 2004

Bridging technological change from CD-R to DVD-R and DVD+R was viewed among major players in the industry as a crucial means to get rid of fierce competition in CD-R business which was caused by a plethora of media makers and turnkey solution provides. However, the focal net actors developed different strategies towards this bridging of technological change, resulting in both fits and misfits of actions and reactions among these actors. It was these actions and reactions by the focal net members that begot radical changes of relationships which reconfigured the focal net. These radical changes included F's ending relationships C1 and C3, and C2's new relationships with C1 and C3.

F's recruitment of a vice president (VP) in July 2001 to devise their operational strategies was a critical factor that leaded to a number of significant events affecting the development of F's relationship with their business customers, including the relationship ending with C1 and C3. Although F and C1 viewed each other as

important OEM business partners, C1's dissatisfaction was mainly intensified by F's reluctance to purchase C1's used CD-R production lines, F's unwillingness to expand more CD-R production capacity for C1, and F's mark-up of optical media for its OEM customers. These events made C1's relationship with F faded away and forced C1 to turn to R1 (F's major competitor based in Taiwan) in early 2004.

In order to enhance the competitiveness via introducing the next generation of technologies, C1 closed their CD-R production factory in the US in January 2001 and focused on manufacturing DVD-Rs themselves in Japan. C1 hoped their relationship with F could be strengthened by releasing more CD-R OEM orders to F if F could purchase their used production lines and expand more CD-R capacity for them.

Unfortunately, F's new VP viewed that used production lines created little value but burdens, and he thought that F should establish the capacity for DVD manufacturing and develop their own brand business by leveraging their technological competences, including the ability of transferring production lines between CD and DVD manufacturing³. Finally, C1's used production lines were taken over by R1 in the end of 2001.

Within the new VP's strategic maneuvering, in March 2002 F set up a new marketing team lead by a new deputy general manager recruited from a well-know IT

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³ Most of CD-R makers were required to install new production lines and acquire new dye materials, so as to produce DVD-Rs and DVD+Rs.

OEM business plans by including new criteria of selecting OEM customers (e.g. the volume of monthly purchase orders) and a mark-up of optical media. The changed OEM plans made F not to continue their business with C3 from mid 2003. This relationship ending was mainly because C3's orders for F were neither large nor stable, and C3's cooperation with R2 (another media make based in Taiwan) made F view C3 strategically unimportant.

In spite of F' relationship ending with C1 and C3, their relationships were indirectly connected via C2, which was a technology leader in the DVD+RW Alliance and which partnered with F as an OEM while both parties maintained their own brand businesses. In the strategic partnership, F produced DVD+Rs using C2 proprietary dye materials and process while C2 controlled the product quality and approach major brands as OEM customers. This strengthened relationship between F and C2 was built on mutual trust accumulated from doing CD-R business and F's technological competence in handling C2's technology in an efficient and effective manner. This partnership allowed C2 to launch good quality new products ahead of competition, and thus, they were able to acquire DVD+R OEM orders from major brands, including C1 and C3.

4.2.2 The second reconfiguration of the focal net towards the end of 2005

The constant need for investment in new technology and new production equipment did not deter CD-R makers (especially those medium and small sized ones) and newcomers from entering the DVD battle field. The availability of key materials, equipment and even turn-key solutions meant DVD manufacturing technology was not a serious issue. This situation drove major players (e.g. C2) to expedite the launch of new products by enhancing the recording speed of the media so as to enjoy higher profits, and thus, the product life cycle of DVD-R and DVD+R was shortened.

Consequently, introducing DVD-/+R DL (double layer) became a must for major players. Prior to this introduction, F reactivated their relationships with C3 and then C1 near the end of 2004.

F encountered a technical barrier when they attempted to release new DVD-R products for higher speed recording by adjusting their in-house dye materials. The barrier suspended F's momentum in both OEM and own brand business, forcing them to turn to external dye solutions for DVD-R manufacturing. Initially, F approached a Japan-based supplier for dye materials but they were turned down because F was reluctant to adopt this supplier's materials in early 2002 when F was actively preparing for the mass production of their DVD-Rs. Another reason was that this supplier had a close relationship with R1 (F's main competitor). Without other good

choices, F approached C3.

Despite their relationship ending, C3 was pleased to re-cooperate with F because F's huge production capacity meant that their newly established dye materials business could get boosted. Using their expertise in the photographic area, C3 invested R&D resources in developing dye materials for DVD recordable media, as a means to improve their position in the industry. In order to enhance their dye materials business and the reactivated relationship with F, C3 utilized the advantage of their brand business by giving F OEM orders. Moreover, both parties initiated some projects that aimed at niche markets. Following their re-cooperation with C3, F also restarted their OEM business with C1, mainly because F's DVD-Rs using C3's dye materials could diversify C1's product lines.

Not long after the reactivation of the F-C3 and F-C1relationships, C2's business model by partnering with F as an OEM was challenged. Although the partnership allowed C2 to gain a lead in the DVD+R market in terms of market share, product quality and new product launch, the advantage had been gradually neutralized by its main competitors' improvement of efficiency and effectiveness. Moreover, after C2 launched their DVD+R 16X (the highest recording speed and the technical limit in DVD+R technology) in December 2004, what left in the DVD+R market soon was the competition on price, leading to squeezed profits that had to be shared by two

parties. The deteriorated profitability endangered C2's business model.

Another thing that contributed to the disruption of C2's business model was F's introduction of their in-house developed DVD+R DL. Although F's partnership with C2 was sustained by signing an OEM and technology transfer deal for DVD+R DL business in May 2005, F's small volume-production of DVD+R DL using their in-house dye materials and process near the end of 2004 undermined their partnership with C2. Many of C2's OEM customers started to question why they had to purchase F-produced DVD+R and DVD+R DL from C2. Towards this, F thought C2 gradually lost their promptness in responding to the changed market situation by releasing the "right" technology (DVD+R DL). To C2, they thought it was their sales team's weak skills in managing OEM and own brand businesses that made them lose their competitiveness.

Finally, C2 discontinued their OEM business in December 2005 but still retained their brand business, in which they provided their materials for F to produce DVD+R and DVD+R DL products for them. And, most of C2's OEM customers were taken over by F, resulted in C2's relationship ending with C1 and C3. As a result, another reconfiguration of the focal net caused by radical changes of relationships towards the end of 2005 was observed.

4.2.3 The third reconfiguration of the focal net in mid 2008

Similar to some of major players, F thought that being able to produce HD DVD-R and BD-R could create sustainable momentum despite the high technical barrier and huge capital for installing brand new machines, especially for BD-R manufacturing. For HD DVD-R and BD-R which were generally viewed as the ultimate generation of optical recording media, F kicked off their BD and HD projects respectively in November 2004 and August 2005. Because of their technological competences and investments, F was able to volume produce HD DVD-R in mid 2006 and BD-R in March 2007, based on their in-house solutions. In particular, F achieved a technical breakthrough in HD DVD-R that allowed them to produce high quality discs cheaply using the existing manufacturing system. However, F's marketing team hesitated to promote their HD DVD-R owing to few market demands and their sitting on the fence towards the format competition between HD camp and BD camp.

In June 2007, F's hesitance to promoting their HD DVD-R was removed by the acquisition of OEM orders from C4 by singing a NDA (non-disclosure agreement). C4 was a leading Japan-based technology vendor in the DVD Forum (the HD camp). In addition to their OEM business, F was invited to join C4's promotional events for the HD format in Japan using F's branded media. F expected their cooperation with this format leader would enable them to increase their influences in the DVD Forum

in which they could participate in standardisation activities. However, F's cooperation with C4 was short-lived; a few months only. F's business relationship with C4 came to an end when C4 announced in February 2008 that they would no longer make and market HD DVD players and recorders.

Prior to the relationship ending with C4, F discontinued their cooperation with C1 and C2 roughly at the same timing in mid 2007, rendering another reconfiguration of the focal net. Being as a patent member in the Blur-ray Disc Association (the BD camp), C1 thought the best strategy to survive the optical recording media industry was to focus on BD-R manufacturing because they were able to waive the royalty fees in each piece of disc produced. Then in July 2007, C1 agreed their brand recording media business being acquired by a US-based technology vendor whose business focus was placed on the areas of magnetic, optical, flash and removable hard disk storage. This refocus of the attention on media manufacturing made it difficult for F to continue their OEM business with C1.

As for C2, they changed their operational strategies when the development of DVD+R DL reached its technical limit in early 2007; they began to sell their manufacturing process and key materials to other media makers in order to improve their performance. Unlike their strength in CD-R, DVD+R and DVD+R DL, C2 considered themselves as a "follower" in the battle of high definition optical recording

media because they possessed neither key materials nor patents. Finally, C2 decided to exit from the optical recording media industry.

5. Discussion

5.1 Theoretical discussion

Using a strategic lens to examine several empirical examples of relationship ending occurred in the evolution of the focal net driven by technological change, we are permitted to provide some insights into the relation of relationship ending to competitive advantage of firms, in terms of its strategic significance, its impact and its exercisability.

We find that the strategic significance of relationship ending can be realised in two aspects. First of all, an ending of interfirm relationship allows a firm's resources that are devoted for the dyad to be released and used for other dyad(s) in a more beneficial way. For example, the CD-R production capacities released from the ending of relationships with C1 and C3 permitted F to produce more DVD+Rs and DVD-Rs for C2 and their newly established brand business by their competences in transferring production lines. Secondly, relationship ending at a certain point in time may become necessary for the purpose of improving or enhancing firm performance.

This can be exemplified by the partnership between F and C2. The F-C2 partnership as an OEM enabled C2 to acquire DVD+R OEM orders from C1 and C3, which were also their competitors in the end-users markets. But after the introduction of DVD+R 16X and DVD+R DL to the markets, C2 opted to discontinue their OEM business followed by their relationship ending with C1 and C3, rather than terminating their relationship with F.

The result allows us to derive some strategic implications. We argue that an interfirm relationship can act as a platform that renders the creation of valuable and imperfectly imitable resources possible, e.g. the combination of C2's product knowledge and know-how with F's manufacturing capabilities. This finding extends the notion of resource-based view (RBV) by placing a particular emphasis on interfirm interaction rather than intrafirm operation (Barney, 1991; Lavie, 2006). We also argue that the utilisation of interfirm relationships to create valuable resources needs to contain a dynamic fashion in which relationship ending can be one of the options, allowing the aggregate resources across firm boundaries to be structured. This notion of relationship ending, to some extent, addresses the static view of RBV and complements the knowledge of dynamic capabilities (Ambrosini & Bowman, 2009; Priem & Butler, 2001).

With regard to the impact of relationship ending, we find this issue needs to be

investigated on a network level, or at least, a "net" level that comprises important relationships of a firm (e.g. supplier and customer relationships) and which exhibits an interdependency structure of which the firm is part. Our empirical data obviously shows that the ending of interfirm relationships reconfigures the focal net (see Figure 2). The reconfiguration of the focal net, no matter by the ending of directly or indirectly connected relationships, signifies the change of a firm's competitive stance or network position, in terms of the combination and acquisition of resources (both tangible and intangible) (Mattsson, 1987; Tsai, 2001; Zaheer & Bell, 2005). From the focal actor's perspective, for example, the second reconfiguration of the focal net rendered C2 gradually marginalized in this jointly value-creating system.

Additionally, our empirical data reveals that the radical changes of relationships (including the ending, establishment and reactivation of relationships) are associated with the changes of actors' roles. For example, F's relationship ending with C1 and C3 in the first net reconfiguration was partly because of F's development of their brand business; that is, to be a brand marketer. This finding demonstrates that an actor's role(s) performed for the interacting counterparts can be seen as the dynamic aspect of its network position which is conceptually static (Anderson *et al.*, 1998). A strategic implication here is that a firm can enhance its performance by acting a new role to benefit from the recombination of resources; and this can be facilitated through

radical changes of relationships, including relationship ending.

From the previous discussion, we identify another related issue: the reactivation of an ended relationship. We uncover that a firm still can exploit the resources of a disengaged (or disengaging) firm once they are indirectly connected via a third party and work towards a cooperation end, such as F's partnering with C2 as an OEM to serve C1 and C3. We see such "positive indirect relationships" as a concrete form of relationship energy which makes the reactivation of an ended relationship possible (Havila & Wilkinson, 2002). Moreover, we find that almost of all factors that contribute an ending of relationship contain "profit-seeking" or "performance-enhancing" logic, such as F's new VP's reluctance to purchase C1's used CD-R production lines and F' preemptive launch of their DVD+R DL. In this sense, we are able to suggest that an actor can reactivate an ended relationship by creating strategic fit, functional fit or time fit for the disengaged party. And, we argue that "dormant" would be a better wording for "ending" in the strategy contexts, because the latter usually implies something traumatic, negative and irrevocable.

Although relationship ending permits the renewing of aggregate resources and generation of variety in resource combination (e.g. resulting in technological innovation), we find it is still far from conclusion about how a firm can utilise relationship ending as a means to pursue strategic goals. In some occasions,

relationship ending can be a planned strategy, such as F's disconnecting their relationship with C3 based on their new criteria of selecting OEM customers. While in other occasions, relationship ending is followed by an actor's change of its role, such as C2's and C4's exits from the industry (stop acting their roles for F). In other words, relationship ending under such circumstances is not antecedent to firm performance. Based on our empirical findings we think it would be more sensible to view relationship ending as an option to achieve competitiveness in the process of "strategizing" between connected actors.

5.2 Managerial implications

From our empirical findings towards relationship ending, we develop two managerial implications for practitioners. First, it is imperative for firms to regard interfirm relationships in order to take relationship ending into strategic consideration.

According to Håkansson *et al.*(2009), interfirm relationships are a type of resource entities and they links tangible (e.g. production facilities) and intangible (e.g. business units) resources, and thus, they can be seen as an aggregation of resources. When relationships are viewed as resources, there are a number of possibilities for a firm to generate new combinations of resources that produce value. This is as what existing literature suggests that innovation resides in a process of business interaction across

firm boundaries towards combining and recombining resources (Håkansson *et al.*, 2009; Lundvall, 1992). As a result, the meaning of the establishment, ending or even reactivation of an interfirm relationship lies in its potential of restructuring the interdependency structure that benefits the firm's position in the network.

Second, we suggest that studying temporal influences shall be part of exercising radical changes of relationship to attain strategic goals. This is particularly important when a firm tries to end a relationship on the one hand and build a new relationship on the other hand. Our empirical data confirms the existing understanding that a relationship may positively or negatively influence connected relationships, in which the combination or recombination of resources may be facilitate or constrained (Anderson *et al.*, 1994). This can be exemplified by F's failure to acquire dye materials from a Japan-based supplier and then being forced to approach C3. Thus, investigating historical components (e.g. interaction episodes and events) allows a firm to better understand the possibility of resource combination. Such an understanding also permits emergent strategies for a firm to respond its counterparts' actions which are based on their respective interpretations of the past and future.

6. Conclusions

This research is driven by the lack of understanding of relationship ending in strategy

contexts. A traditional view on relationship development tends to suggest firms shall develop long-term oriented interfirm relationships and avoid relationship ending which is considered as the "dark side" of relationships (e.g. Morgan & Hunt, 1994).

Moreover, a plenty of studies have demonstrated that interfirm cooperation can improve or enhance a firm's performance, and especially in the face of changing conditions, a firm's ability to gain access to complementary resources through new relationships or weak ties becomes crucially important (Afuah, 2000; Håkansson *et al.*, 2009; Harryson *et al.*, 2008; Kash & Rycroft, 2002; Powell *et al.*, 1996).

Addressing the gap in the literature about the importance of relationship ending to a firm's pursuit of competitive advantage is the contribution this research has achieved. We contribute the existing knowledge by explicating relationship ending using a strategic lens, in terms of its strategic significance, its impact and its exercisability. Even so, our understanding towards this subject remains limited. Thus, we think it would be beneficial to continue this research, e.g. in different empirical settings or from a different actor's perspective, such as a supplier or a customer.

Moreover, it would be interesting to see if we, as researchers and practitioners, share the same understanding of relationship ending (e.g. the definition of ending). This can be a research direction. Then, reviewing what constitutes a relationship becomes important.

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Figure 1 The focal net

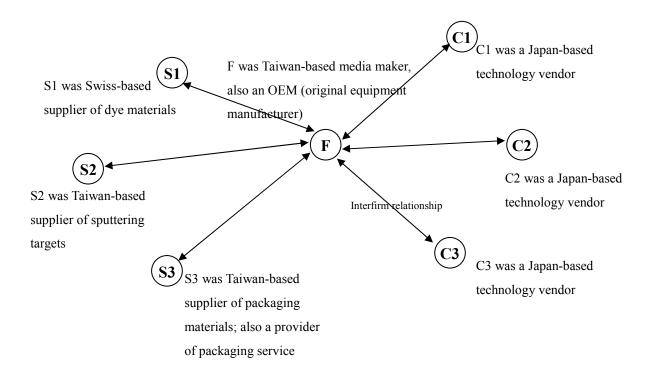
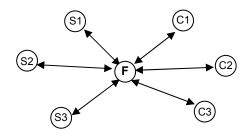
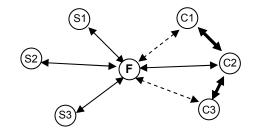


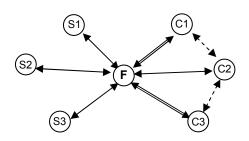
Figure 2 The evolution of the focal net marked by net reconfigurations



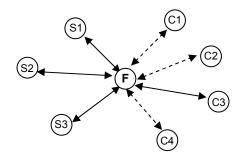
I. The focal net in late 2001



II. The focal net in early 2004



III. The focal net towards the end of 2005



IV. The focal net in mid 2008

