Business strategy and its consequences

Hsin-Hui Chou
National Cheng Kung University, Department of Business Administration
70101, Tainan, Taiwan
Tel: +886 6 275 7575 # 53319
hhchou@mail.ncku.edu.tw

Christina Öberg
Lund University, Department of Business Administration
P.O. Box 7080, SE-220 07, Lund, Sweden
Tel: +46 46 222 7338
christina.oberg@iml.lth.se

Tommy Tsung-Ying Shih[1]
Lund University, Department of Business Administration
P.O. Box 7080, SE-220 07, Lund, Sweden
Tel: +46 46 222 0198
tommy.shih@fek.lu.se

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[1] Corresponding author

Abstract

Business strategy in an interactive context has been a recurrent theme in the industrial marketing literature for over three decades. While scholars have indicated how interactivity makes strategizing a difficult task, due to unforeseeable consequences, the link between business strategies and network consequences has not been elaborated in industrial network studies. This paper aims to develop the understanding of network consequences from a focal company's perspective and how different strategies influence these. Based on a case study from the optical recording media industry, the paper finds that the focal company's strategies trigger reactions of various magnitudes and characteristics. This implies that the kind of strategy matter for network consequences. The paper finds four types of strategies: copying, shared, reflexive, and company-rooted that point to how network consequences diverge from intentions especially among parties not considered in the strategy, and increasingly more the more confronting the strategy is.

Keywords: Strategy; Interactive; Network consequences; Optical media industry; Ritek

1. Introduction

This paper adopts an industrial network perspective on strategy. Business strategy in an interactive context has been a recurrent theme in the Industrial Marketing & Purchasing (IMP) literature for over three decades (Baraldi et al., 2007; Gadde, Huemer & Håkansson, 2003; Håkansson & Snehota, 1995; Mattsson, 1987; Turnbull & Valla, 1986). It refers to how strategy is contingent on others based on the interconnectivity between companies that forms networks (Harrison & Prenkert, 2009). The interactive context hence refers to how any strategic activity in a network may have consequences for the network and its parties. In other words, change by a company expectedly leads to changes in needs, or structures of interconnected parties (Gadde, Huemer & Håkansson, 2003). Strategy also becomes a response to changes among business partners, and any introduced change may have consequences that either reinforce or disable the intentions of the company. With this understanding, strategy in an interactive context becomes a complex balance between conforming to and/or confronting present structures and changes introduced by others (Ford et al., 2003).

Based on how other parties act in parallel, try to adapt to present structures or intend to change them, outcomes are unforeseeable. Several studies have focused on these issues (see Baraldi et al., 2007, and Brennan, Gressetvold & Zolkiewski, 2008, for overviews). Baraldi et al. (2007) even state how strategizing in an interactive context is an impossible task. Still, companies do formulate and implement strategies (Möller & Halinen, 1999). While some studies discuss actions and effects (e.g. Ford & McDowell, 1999; Ford et al., 2003; Wilkinson & Young, 2002), a search in the *EBSCO database*, on business strategy and consequences/outcomes in a network context resulted in zero hits. The link between strategy and consequences, nevertheless, is a relevant research topic. According to Ford et al. (2003) companies will always have outcomes in mind when undertaking strategic action. Moreover it is important to evaluate these consequences/outcomes in order to understand whether or not strategies are realized (Cannon & Perreault, 1999; Ford & McDowell, 1999).

Researchers have suggested the complexity of strategizing in an interactive context and referred such strategizing as conforming to or confronting present structures (Ford et al., 2003). Surprisingly, however, less is known about network consequences and the link to different kinds of strategies. This paper focuses on the issue. Network consequences refer to what happens in the network in terms of changed contents of relationships, and/or changed network structures. We describe the consequences as either intended or unexpected (cf. Andersson, Havila & Salmi, 2001) from the focal company's perspective and link them to different strategies. The aim is to develop the understanding, from an industrial network perspective, of network consequences from a focal company's perspective and how different strategies influence these. The research questions that we seek to answer are:

- How can different strategies in an interactive context be categorized?
- What network consequences, intended and unexpected for a company follow from the strategic option the company has at its disposal?
- How are different strategies linked to network consequences from a focal company's perspective?

The paper contributes to the growing interest for strategy in a network context and describes the link between different strategies and network consequences. This link has both practical and theoretical implications in how it reflects the possibility to realize strategies and in creating patterns of whether and how a strategy challenges the interactive context. The rest of the paper is structured as follows: The next section presents the theoretical background, which includes a review of strategizing in an interactive context, the notions of strategies in networks and consequences, and presents an analytical tool. The method discussion follows thereafter, and the case study is presented. We follow a focal company's strategizing in its network and investigate the consequences, both intended and unexpected. The case serves as the empirical basis through which strategies and consequences are subsequently analyzed. The conclusions present the theoretical contributions, managerial implications and suggestions for further research.

2. Theoretical background and framing

2.1 Interactive business strategy

The roots of strategy research point to strategy as a plan (Payne, 1957). This indicates how companies take their point of departure in individual aims and goals. The resource-based view similarly departs from the individual company (Barney, 1991). The company context here becomes a source for resources. The context associates with competition (Porter, 1996) rather than collaboration (Gadde, Huemer & Håkansson, 2003), and strategic activities are about attacking the context (Grant, 1998). Other streams in the strategy area have incorporated how companies adjust to the context and how competences that allow such changes are important (Baden-Fuller & Volberda, 1997; Teece, 2007; Zhou & Wu, 2010). Adaptation as a strategic mode highlights adjustments (Chaffee, 1985; Mintzberg, 1973), but network consequences are not discussed explicitly in relation to changes intended to challenge current structures, or as further changes of adaptation.

The IMP perspective identifies a company's context as the relationships established directly and indirectly with other business and non-business organizations (Håkansson & Snehota, 1995). This context is described as interactive (Mattsson & Johanson, 2006). Strategizing in such a context has been described since the late 1980s (e.g. Håkansson & Snehota, 1989; Mattsson, 1987; Turnbull & Valla, 1986),with rejuvenated interest recently (Baraldi et al., 2007; Gadde, Huemer & Håkansson, 2003; Håkansson & Ford, 2002; Harrison, Holmen & Pedersen, 2010; Munksgaard et al., 2012). The main idea is that a company's context influences its strategic decision and activities (Håkansson & Ford, 2002), that is, strategic planning and implementation are not autonomous processes controlled by a single company (Harrison & Prenkert, 2009). Instead, business strategies are contingent on company's relationships with other companies (Munksgaard et al., 2012). In this vein, Welch and Wilkinson (2002) suggest that companies need to be responsive and flexible.

Ford & Håkansson (2002) describe how companies react to the activities of others in a pattern of perpetuation, which consistently repeats itself. A company is constantly exposed to pressures from other parties; flexibility and responsiveness to other parties thus become integral in strategic activities (Axelsson & Easton, 1992; Mattson, 1987). As Håkansson and Ford (2002) note, strategy is not planning and maintaining one strategy at all costs, but the handling of uncertainty originating from the diverse forces in a network. Brennan and Turnbull (1999) inform that the success of a company is contingent on an ability to purposefully interact with its context and to adapt strategies in response to the dynamics of the context. Consequently, it is not only a matter of strategy being contextually dependent, but also how companies may choose a strategy that adapts to the context and its changes. The IMP perspective on strategy has with this understanding for the most part described how companies adapt to other parties. Competences such as flexibility and knowledge related to renewal would hence be important (Zhou & Wu, 2010; Baden-Fuller & Volberda, 1997; Teece, 2007).

2.2 Strategies in networks

IMP studies broadly describe companies as conforming with or confronting the network context (Ford et al., 2003; Håkansson & Ford, 2002). Conforming as a strategic option describes how the company adapts to a complex context and copes with it, rather than masters it. This relates to the description above on how companies need to be able to adapt to contextual circumstances and refers to a responsive strategy (cf. Brennan & Turnbull, 1999). Ford et al. (2003) describe how a company decides to follow changes of others by adjusting to them. Conforming therefore relates to keeping present relationships. Confronting present business structures and practices associates with seeking opportunities (cf. Mintzberg, 1973). Scholars have described confrontation as a company activity primarily intended to build advantage for itself and erode the advantage of competitors (cf. D'Aveni, 1994; Porter, 1996). Ford et al. (2003) depict confrontation as the active aim to change established business structures; in other words, activities that intend to change network positions and challenge current structures (Håkansson & Ford, 2002; Harrison, Holmen & Pedersen, 2010; Harrison & Prenkert, 2009). This follows from how current ways of conducting business in established structures do not fulfil the needs of the company. As Holmen and Pedersen (2003) note, companies frequently strategize by introducing changes.

Conforming and confronting in their original descriptions (cf. Ford et al., 2003) relate to individual business relationships, that is, conforming to a business partner, or the confrontation and possible establishment of a replacing relationship. Based on how a company engages in several business relationships, it may decide to conform to certain ones, while confronting other ones (Håkansson & Ford, 2002). Ford et al. (2003) also identify the strategic choices of consolidating and creating to describe the repositioning of companies within networks and; coercing and conceding to indicate how companies act based on their own wishes or disregard of them. We here use conform and confront to indicate any intended adjustment or attempts to introduce change in present structures. We also see the link between the pairs of concepts introduced by Ford et al. (2003). Consolidate, coerce and conform all indicate the adjustment to others; create, concede and confront intended shifts in interaction patterns, relationship structures, and/or positions.

Based on how the context is interactive, both conforming and confronting may have network consequences. These may be partly driven by the company's intentions and hence be expected from the perspective of the focal company, or they may follow from how other parties act and react, which we refer to as unexpected consequences.

2.3 Network consequences

Strategizing in an interactive context has, as described by Baraldi et al. (2007), been considered a futile task. This is due to the parallel activities of others, and to the reactions that are expected based on any attempt to change (but potentially also stabilize) current structures (Håkansson & Ford, 2002). Other companies' strategies may collide with the individual company's intentions. A further difficulty with strategizing in a network is how activities intended in the relationship to one company may have consequences in interactions with other companies (Gadde, Huemer & Håkansson, 2003).

Conventionally, network studies refer to changes in existing business relationships based on adaptation and development. This means that contents of relationships are altered, but the relationships continue as previously. Contents relate to frequencies of exchange, or how activities, resources, or actors change while the overall business relationship continues (cf. Palmatier et al., 2008). Changes could however also be expected that affect present structures: new relationships are established, present ones dissolve (Möller & Halinen, 2003). Halinen, Salmi and Havila (1999) describe relational effects as confined and connected, and as incremental or radical. The latter indicates how present relationships are dissolved or new ones established.

Anderson et al. (2001) refer to consequences as intended or unexpected. In other aspects, network consequences are rarely categorized, and they are not linked to the different strategies of companies. This suggests a need to describe on the one hand strategies and on the other hand their consequences (cf. Ford & McDowell, 1999). As Ford et al., (2003: 184) note "it is important that companies try as far as possible to decide which networking actions are important for them and examine the different outcomes for these actions".

2.4 Analytical framework

Network studies thus indicate that strategies are contingent on others, while also affecting others. Reactions among directly and indirectly connected business partners, and their parallel activities in the network make outcome unforeseeable (Casadesus-Masanell & Ricart, 2011; Öberg, 2010). Previous research on strategy in an interactive context has, as referred to above, described strategies as conforming and confronting. Reactions, effects, or outcomes as synonyms for different consequences have been referred to as intended or unexpected, and as occurring on different levels and with different magnitude. Intended consequences in relationships from the individual company's perspective, may be based on activities of the company, but also how other companies comply with these activities, or act in ways that enable the strategy of the company. Hence a strategy that leads to conforming activities of others would be described as intended. Any strategy that meets resistance from other companies, which disable its implementation or realization, that these parties reinforce the change, or that coincide with strategic changes by any such party, is described to have unexpected consequences. Since perspectives matter here, we see these as what a focal company aimed for (intended), and consequences following from activities of others as reactions challenging the focal firm's intentions (unexpected). We also suggest that a strategy aimed to change a position, would have intended consequences, while a conforming strategy would not expect any such consequences. This in turn indicates how different strategies would be associated with different consequences. Figure 1 outlines the analytical tool.

Strategy		Network consequences: Intended	Network consequences: Unexpected
	Conforming		
	Confronting		

Figure 1: Analytical tool

3. Method

This paper uses a single case study methodology (Dubois & Araujo, 2007) to enable the capturing of contexts and links between different strategies and consequences. The investigation into a company's strategizing in an interactive context and the consequences calls for the adoption of process thinking (Halinen & Törnroos 2005), that is, to be able to investigate consequences of strategies we need to follow the company, as well as the activities and reactions of other parties over time. As Langely (2010) notes, process thinking deals with behavioral phenomena that are embodied in flows of activities and reactions by interacting parties. A single case study with a processual view thus permits the investigation of what kind of different strategic activities are taken and what the consequences are in a network context (cf. Halinen et al., 2012). Such a methodological choice is preferable particularly when attention is focused on unique business interaction in networks (Dubois & Araujo, 2007).

The case study follows Ritek, a Taiwanese optical recording media manufacturer and its interaction with business customers and material suppliers, from 1997 to 2008. The case, followed in retrospect, was chosen for its rich description of the focal company's strategizing and interaction with business partners. The optical recording media industry's swift changes in technological standards particularly influenced the active strategizing of the focal company.

Interviews constituted the main data source. Interviewees were from Ritek, its business partners (including suppliers and customers), companies representing complementary products (drive makers) and competitors. During the data collection, access was allowed into Ritek's management teams for in-depth interviews. Interviews with Ritek's main business partners identified through a snowball sample also provided essential information. All the interviews were conducted between September 2007 and June 2009. Drawing on these interviews permitted us to gain an understanding of the interactive context, within which the association between strategy and network consequences was studied. The average length for an interview was 70 minutes. Some informants were interviewed more than once in order to verify data or ask for more details. A total of 72 interviews were performed (see Appendix 1 for an overview of interviews). The interviews were carried out using an interview protocol. Secondary material was also gathered to complement the interview data. This material included information from corporate websites, annual reports, planning documents, industry reports and newspaper articles. The secondary material was used to complement and substantiate interview material (Huber & Power, 1985; Welch, 2000).

The analysis of the study formed an iterative process (Dubious & Gadde, 2002). After identifying various strategies through a literature review, we sought to catch these strategic activities in the case. The case data allowed us to find network consequences related to a number of strategies. We also related this to previous descriptions on different consequences/network outcomes, and to categorizations of strategies. We hence moved back and forth between empirical data and our theoretical foundations in order to understand the interrelationship between different strategies, and network consequences. In the empirical capturing of consequences, we relied on their links to the different strategies as described by interviewees. Each strategic activity from the focal company's point of view was in our analysis seen as a separate trigger to these consequences, while in reality it might have been linked to previous strategies and consequences. This was done so as to investigate the link between consequences and strategies by means of their explanatory power (Welch et al., 2011).

The case is defined by its context, and the context matters for strategic choices as well as network consequences. In part, this is a point of view that the case intends to highlight – how and what consequences follow from different strategic activities in an interactive context and the context thereby adds to the understanding and creates a contributing component (Welch et al., 2001). The context is also specific in how it represents companies in a specific country that is also marked by country-specific features (a highly regulated market; a strong focus on technological developments), and based on how the development from CDs to DVDs constitutes a context of frequent technological shifts. The positioning of the case in the paper and also how we compare strategies with consequences, these links expects to apply in situations beyond the case under study (while the occurrence of individual strategies could be considered as case specific).

4. Strategizing in an interactive network context – A case study

The case embeds in the optical recording media industry between 1997 and 2008. During the period, the industry was marked by various technological transitions from Compact Disc (CD) to Digital Versatile Disc (DVD) to Blue-Ray Disc (BD). The case description follows the focal company, Ritek, a Taiwanese manufacturer of recordable media. The different technologies were developed by competing coalitions. Sony and Philips created the first generation of recordable media, the CD-Recordable (CD-R). The second-generation technology was developed by two different international standardization coalitions that had a similar objective to define, disseminate and verify their own standards; *The DVD Forum*, chaired by Toshiba, created the DVD-R format, and the *DVD+RW Alliance*, led by Ricoh, developed DVD+R. The third-generation recordable media formats, High Definition (HD) DVD-R and BD-R were developed by the DVD Forum, and the Blu-ray Disc Association, led by Sony. Figure 2 summarizes these different technological transitions and we structure the case description around these different technologies. Appendix 2 presents an overview of the parties referred to in the network.

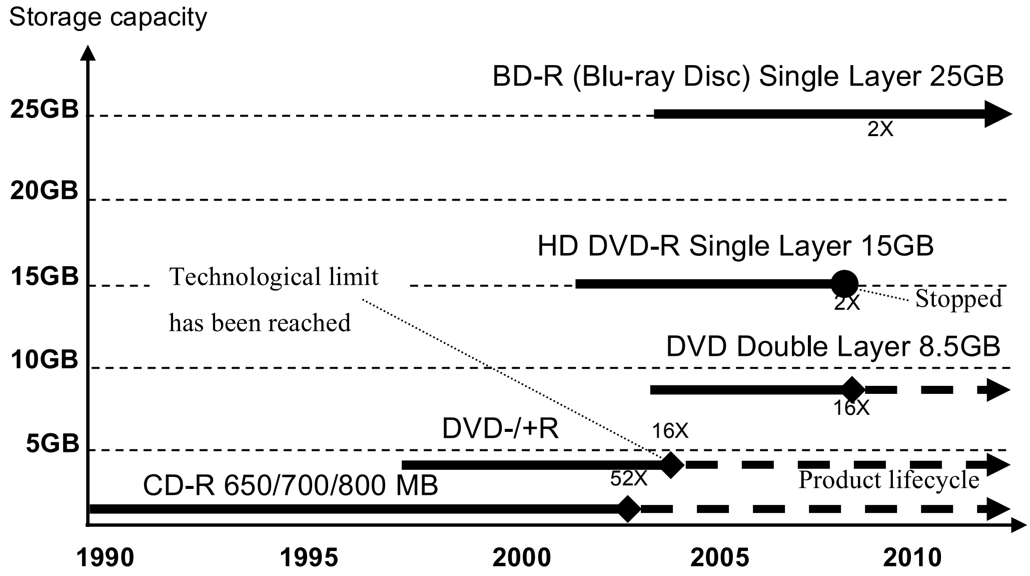

Figure 2: Technological development for optical recording media

4.1 CD-R

Philips and Sony dominated the market for CDs during the 1980s. In 1990, the optical recording media industry opened up after these two companies released CD-R specifications. Not long thereafter, the competition in the industry intensified and pioneers, especially those based in Japan, such as TDK and Ricoh, started to look for outsourcing partners in order to improve their operational efficiency. In this context, Ritek saw opportunities to specialize in manufacturing and to become an OEM for global companies. In order to become such a manufacturer, Ritek had to prove that it could deliver to customers' requirements, and as the company did, Ritek established OEM relationships with TDK and Ricoh. These relationships were formed in late 1998 and August 1999, respectively. The strategic intent of positioning itself as a leading OEM to large global brands, also allowed Ritek to gain CD-R OEM orders from Fuji, starting at the turn of the millennium.

As part of the strategy to establish itself as an OEM, Ritek enhanced its production capability by establishing close collaborative relationships with Ciba, a supplier of dye material and Solar, a developer of sputtering targets. These materials were crucial to the quality of optical recording media in terms of compatibility with recording drives and media longevity. Dye materials also allowed customer companies to differentiate their products. Through different chemical formulas, colors on the recording side of the optical recording media could be changed and thus easily be distinguished by end users. By joining forces with Ciba and Solar, Ritek secured timely delivery, higher production efficiency and increased knowledge of essential materials. Solar was able to provide Ritek with good quality, relatively low cost sputtering targets. The frequent communication on technical issues between Ritek and Solar also allowed Ritek to quickly respond to OEM customers' requirements and new product development. TDK, Ricoh and Fuji cooperated with Ritek due to the company's knowledge of dye materials. Ritek used in-house developed dye solutions to produce CD-Rs for TDK and Fuji. For Ricoh-branded CD-Rs Ritek used Ricoh's proprietary dye materials.

Ritek also established, Prorit, a subsidiary specialized in providing packaging materials and services in 2001. Ritek's establishment of Prorit enabled Ritek to control the packaging quality and reduce material and logistics costs. This was important as OEM customer companies wanted to quickly introduce new packaging styles so as to appeal to end users. Competition though grew increasingly fierce as other companies moved into the niche as OEM suppliers.

4.2 DVD+R/DVD-R

The late 1990s saw the emergence of DVD-R technology, while DVD+R technology was introduced in early 2002. The two technologies were fairly similar in technological design but resulted from the competition between two coalitions. Although the standard battle between DVD-R and DVD+R was in full bloom, CD-R had not been rendered obsolete. Media makers often produced all three formats. A reason was that DVD-R and DVD+R co-manufacturing did not incur any large investment in production equipment to media makers. The ample availability of turnkey solutions and key materials lowered the technical barriers and encouraged existing CD-R makers as well as new parties. Companies developed new versions through upgrading the recording speed of the media and introducing new technology in order to stay competitive. Once a new product could be released ahead of competition, a company could enjoy higher profit margins.

Ritek viewed the introduction of DVDs as an opportunity to diversify and alleviate the pressures from the increasingly fierce OEM competition in CD-R. Ritek's strategy was to produce both types of DVD recordable media. Ritek was able to acquire necessary materials, especially the dye materials via in-house development and was also capable to transfer CD-R production into DVD manufacturing. This capability was developed from the expansion of CD-R production capacity, and from the acquisitions of two small and medium sized media makers in early 2000 and allowed Ritek to reduce its equipment expenditure. The difference between DVD-R and DVD+R manufacturing was that the production of DVD-Rs required an additional procedure, namely pre-writing. Adding this procedure was not a big effort for media makers. While relying on its in-house solution to produce DVD-Rs, Ritek opted to form a strategic alliance with Ricoh in 2002 for DVD+R. The strategy for the alliance was to function as an OEM entity. As Ricoh was a technology leader in a DVD+RW (rewritable DVDs) alliance, the company controlled the product quality and approached OEM customers, while Ritek was responsible for the manufacturing of DVD+R. The partnership allowed Ricoh to release good quality DVD+R products and gain OEM orders from major media brands, such as TDK and Fuji.

Parallel to engaging in the alliance, Ritek developed its own brand and approached OEM customers in early 2003. It was believed that an own brand could enhance the company's competitive stance in the recording media industry. Ritek's strategy however resulted in some conflicts with Fuji and TDK that were not happy with Ritek's decision. Ricoh also expressed its dissatisfaction, but did not take any measures towards Ritek. The business relationships with TDK and Fuji dissolved in 2003 and early 2004, respectively. The dissolution resulted from several combining activities. In addition to Ritek's attempt to launch its own brand, TDK had asked for more CD-R production capacity from Ritek and wanted to produce DVD-Rs by itself, while Ritek decided to steer production from CD-R to DVD manufacturing. TDK's strategy was to also purchase DVD+Rs from Ricoh in order to strengthen its competitiveness, but Ritek was reluctant to this. Moreover, prior to this, in 2001, Ritek had refused to purchase TDK's used CD-R production lines because Ritek viewed used CD-R lines as a burden. TDK was forced to approach CMC Magnetics Corporation, which was Ritek's main competitor. CMC had a strong relationship with Mitsubishi Kagaku Media (MKM), a Japan-based technology vendor. In its turn, Ritek developed a trading relationship with Gigastorage, Ritek's competitor based in Taiwan, in order to account for the shortage of CD-R supply.

Amid technological transition from CD-R to DVD-R and DVD+R, Solar and Prorit continued the business interaction with Ritek based on the existing routines. Ciba however had problems with establishing its DVD dye material business. The reason was that the DVD Forum and the DVD+RW Alliance did not verify Ciba's new dye material samples in time. Ciba ascribed the failure to political reasons.

In 2004, Ritek encountered a technical bottleneck, which affected the manufacturing of high recording speed DVD-Rs. This resulted in the suspension of Ritek's DVD-R business momentarily. In order to solve the technical problem, Ritek turned to external solutions. Ritek approached MKM for a solution but the company was not interested. The reasons were that Ritek had been reluctant to adopt to an MKM solution in 2002 and Ritek's close relationship with Ricoh (MKM's competitor). Instead, Ritek had to approach Fuji, which had just built its dye materials business for DVD manufacturing. Fuji and Ritek had severed business ties due to business disagreements, but Fuji needed to cooperate with other media makers in order to sustain its material business. The renewed cooperation was additionally strengthened by how Fuji gave Ritek OEM orders and initiated a project to co-develop a niche product. This was also followed by Riteks's reactivation of the OEM business relationship with TDK. The latter company had changed its outsourcing strategy from relying on a single supplier to multiple suppliers. TDK believed that that the DVD-Rs produced by Ritek using Fuji's dye materials could help to broaden its own product line.

By the end of 2004, the developments of DVD-R and DVD+R were near their technological limits. Introducing double-layer technologies therefore became a focus among many companies. Ricoh started its DVD+R DL OEM business by signing OEM and technology transfer agreements with Ritek in 2005. Ricoh's strategy to partner with Ritek could however hardly sustain profitability. A reason was that Ricoh sales capabilities were weak in the management of its OEM and branding businesses for both DVD+R and DVD+R DL. Another reason was that the launch of DVD+R DL squeezed the profit margins of DVD+R that had to be shared with Ritek. Ritek also ran its own in-house manufacturing of DVD+R DL as Ritek thought that Ricoh had become slow in responding to contextual changes. Many of Ricoh's OEM customers started questioning why they should purchase Ritek-made DVD+R or DVD+R DL from Ricoh. By the end of 2005, Ricoh decided not to continue its OEM business but kept the branding business. Ritek had shortly before this started to volume produce DVD-R DL products based on its in-house solutions.

4.3 BD-R/HD DVD-R

In 2004 the DVD Forum and the Blu-ray Disc Association respectively, released the specifications for HD DVD-R and BD-R. This led to Ritek starting projects for the development of HD DVD-R and BD-R. Ritek believed that its competitive stance could only be sustained if it was able to embrace the next generation of technology. In 2006 the competition between HD DVD-R and BD-R toughened when Toshiba launched its industry-leading HD DVD player and Sony debuted with PlayStation 3. That year, Ritek also achieved a breakthrough in its development of HD DVD-R. Ritek was capable of producing cost-competitive HD DVD-Rs using in-house dye materials without any major changes in the existing DVD production system. Additionally, Ritek's HD DVD-R had a very good compatibility with key drive makers' prototype recorders. Despite the breakthrough in HD DVD-R development, there was a dispute between Ritek's R&D and marketing teams whether a preemptive strategy for HD DVD-R business was needed. On the one hand the R&D team argued that an active utilization of the technical achievement in HD DVD-R could strengthen Ritek's competitive position and further to participate in standardization activities in the DVD Forum. Ritek's marketing team, on the other hand, thought that the timing was not appropriate to promote its HD DVD-R. The reason was that the battle between HD DVD-R and BD-R was just initiated, and DVD-R, DVD+R and some portion of DVD double layer were still the main products on the market. The dispute resulted in Ritek taking an observatory position in the format battle. After 2006, when the market focus gradually shifted to HD DVD-R and BD-R, Ritek's new business based on these two types of technology strengthened.

With this development Ricoh attempted, in vain, to sell its technical resources for DVD+R DL manufacturing to some media makers. Finally, perceiving little advantage in either HD DVD-R or BD-R and experiencing declined profitability in DVD+R and DVD+R DL businesses, Ricoh decided to exit from the optical recording media industry. Ritek's other customer, TDK, repositioned itself as an OEM specialized in BD-R manufacturing. Subsequently, TDK sold its media branding business to a US-based technology vendor. TDK's strategic move disconnected its relationships with Ritek and CMC, and Ritek's relationships with TDK and Ricoh ended in 2007.

Ritek's resistance to introduce its HD DVD-R remained unchanged until 2007, when Toshiba, a Japan-based format leader, approached Ritek to cooperate in the HD DVD business. By signing a non-disclosure agreement, Ritek initiated OEM business with Toshiba and joined Toshiba's HD DVD standard co-promotion program in Japan. Ritek expected that the cooperation with the format leader would increase its influence in the DVD Forum, and was based on Ritek's strategy to participate in standardization activities. However, the cooperation between Ritek and Toshiba was short-lived. In 2008, Warner Bros. Home Entertainment Group, a major supporter of HD DVD format, announced that it would only release its movies in the Blu-ray format. This announcement started a chain reactions where major retailers, such as Wal-Mart and Best Buy said that they would stop selling HD DVD movies and players. The HD DVD camp was given a fatal strike. Without having the support from major studios and retailers, Toshiba finally decided not to make and market HD DVD players. This resulted in Toshiba's discontinuation of its relationship with Ritek.

While the dramatic events unfolded, Ritek's relationships with Priorit and Solar remained. Ritek's relationship with Ciba continued in CD-R business. Following the dissolution of the relationships with TDK, Ricoh and Toshiba, Ritek attempted to utilize its branding business combined with its production advantage to pressure major BD-R brand marketers, particularly on the Japanese market and create opportunities for OEM. In spite of being able to volume produce BD-R in early 2007, Ritek had no key OEM customers and had to rely on its branding business to promote new products.

5. Analysis

The case illustrates several strategies employed by the focal company, activities of others, and network consequences of Ritek's strategies. Table 1 summarizes the case study.

Table 1: Ritek's strategies and network consequences

Background	***Ritek's strategy***	***Strategic pattern***	***Consequences***
As the optical recording media industry opened up in 1990, firms such as TDK and Ricoh started looking for outsourcing partners to improve their operational efficiency and position themselves as major brands of recording media. The situation led to new opportunities for OEMs.	Specialize in manufacturing and aiming to become an OEM for large brand companies.	Reflexive (Complementary)	Intended: • Ritek managed to establish OEM relationships with the major media brands, TDK and Ricoh, after proven to be a reliable OEM. • Roles in the network became clearer (manufacturing, design, sub-suppliers). Unexpected: • Ritek gained CD-R OEM orders from Fuji. • Increased competition.
To build production capabilities for OEM operations the access to components such as dye material, and sputtering targets were essential. The availability of packaging materials was also necessary.	Establish a sub-supplier network to increase production efficiency.	Shared	Intended: • By joining forces with Ciba and Solar, Ritek gained access to essential components. • Ritek's establishment of Prorit enabled Ritek to control the packaging quality and reduce the material and logistics costs. Unexpected: • Ritek's alliance with Ciba strengthened the business relationship with TDK, Ricoh and Fuji as the customers needed dye materials to differentiate their products from others. • The collaboration that Ritek established with the suppliers, involved frequent communication on technical issues.
The introduction of DVD-R and DVD+R technology which created a standardization battle.	Diversify product lines by moving into DVD in order to stay competitive.	Copying	Intended: • Ritek diversified and due to fairly similar technology and low additional investment needs, managed to produce DVD-R and DVD+R. • Alliance with Ricoh for DVD+R. Unexpected: • Increased competition from new and established parties in the sector put focus on recording speed and new technology. • Loss of orders as some CD lines were abandoned to create capacity for DVD production. Some customers of CDs, such as TDK, sought out new manufacturers as a result in order to fulfill their needs of CDs. • Ritek had develop a trading relationship with Gigastorage, Ritek's competitor based in

			Taiwan, to account for the shortage of CD-R supply. • A technological bottleneck was reached in 2004 that resulted in a temporary suspension of Ritek's DVD-R business.
The strengthening of technological levels, and the build-up of competitive OEM business led Ritek to pursue other avenues to create additional business value.	Start a branding business to create additional business value.	Company-rooted	Intended: • Ritek gained new customers and a new source of income from the branding business. Unexpected: • Conflicts with Fuji and TDK that was not happy with Ritek's new business decision. The business relationships with these two parties ended. • Ricoh (see below) expressed its dissatisfaction, however remained in the alliance with Ritek.
Increased competitive pressure in the industry led to firms seeking new avenues of collaboration.	Form an alliance with Ricoh to increase efficiency.	Shared	Intended: • The alliance was established and increased production effiency. Unexpected: • The attempt to enhance recording speed and volume produce DVDs by joining forces benefitted both Ritek's branding business and Ricoh's OEM and branding businesses. • The alliance led to OEM orders from major media brands, such as TDK and Fuji. The alliance was however not profitable.
In 2004, Ritek encountered a technical bottleneck, which affected the manufacturing of high recording speed DVD-Rs. This resulted in the suspension of Ritek's DVD-R business momentarily.	Collaborate with other firms for technological solutions to come to turns with technological bottleneck.	Reflexive (Complementary)	Intended: • An external solution solved the technological problem and Ritek continued its production and sales of DVD-Rs. Unexpected: • Problems to establish such relationships (Ritek was turned down by MKM). • The strategy led to the reactivation of old business relationships. Ritek had to approach Fuji, which had just built up its dye materials business for DVD manufacturing. Fuji needed to cooperate with other media makers in order to sustain its new material business. • The renewed cooperation was additionally strengthened by Fuji giving Ritek OEM orders. • The Fuji-Ritek relationship led to the reactivation of the OEM business relationship with TDK. TDK believed that that the DVD-Rs produced by Ritek using Fuji's

			dye materials could help broaden its product lines.
In 2004 the DVD Forum and the Blu-ray Disc Association, released the specifications for HD DVD-R and BD-R.	Start projects for the development of HD DVD-R and BD-R. The strategy was a result from the uncertainty over which technology would become a standard.	Reflexive (Complementary)	Intended: • Ritek was enabled to produce HD DVD-R. • Ritek's decision to stand on the sidelines resulted in the continuation of existing customer relationships. Unexpected: • Internal conflict within Ritek. • Ritek could not utilize its technological achievement in HD DVD-R to gain influence in standardization processes. • To take a neutral position adversely affected some of Ritek's sub-supplier relationships that were put on hold for material verifications by competing coalitions. • Customer losses due to not taking a position towards either of HD DVD-R and BD-R.
Toshiba, a Japan-based format leader in HD DVD, sought to tie companies to the HD DVD technology and strengthen the technology's position on the market.	Become an active part on the DVD Forum in order to gain influence in standardization processes.	Reflexive (Challenging)	Intended: • Ritek initiated OEM business with Toshiba and also joined Toshiba's HD DVD standard co-promotion program in Japan. The cooperation with Toshiba enabled Ritek to increase its influence in the DVD Forum and standardization activities. Unexpected: • Warner Bros. Home Entertainment Group, a major supporter of HD DVD format, announced it would only release movies in the Blu-ray format, which started a chain effect where major retailers said they would stop selling HD DVD movies and players. As a result Toshiba decided not to make and market HD DVD players. This resulted in Toshiba's discontinuation of the business with Ritek. • The focus on DVD decreased the influence of Ritek in the BD field. When BD became the standard, Ritek lost existing business.

5.1 Categorization of strategies

From the strategic activities of Ritek (Table 1) we identify four different strategic patterns: (i) strategies that copy strategies of others (cf. DiMaggio & Powell, 1983; Öberg, 2014); (ii) shared strategies on coalition levels (cf. Achrol & Kotler, 1999; Dyer & Singh, 1988); (iii) reflexive strategies that complement or challenge other parties' strategies (cf. Fuller & Lewis, 2002); and (iv) company-rooted strategies that depart from the focal company and are not shared or rooted in strategies of others (cf. Harrison & Prenkert, 2009). All patterns of strategies may in turn lead to new strategic movements among other companies, as well as adjusting strategies by the focal company, indicating how strategy is interactive and have consequences on the network level.

For each strategy, certain parties are considered. When Ritek, for instance, decided to become an OEM of CD-R, the company based its decision on TDK's and Ricoh's outsourcing strategy. Ritek's strategy only focused on a limited number of parties, but had wider consequences. Some companies were threatened by the advancement of Ritek's position, other parties either adjusted or actually were attracted by the new way of working, or new parties involved. This means that while a strategy may intend to conform or confront one or more business relationships (cf. Ford et al., 2003), its *network consequences* reach beyond those particular relationships. A strategy intended to conform in a business relationship may be considered to confront the network level, and vice versa. Looking at the four strategic patterns described above, a copying strategy may both conform to and confront others. Copying a competitor would confront the competitor, copying a business partner may conform to the activities of that party. Shared strategies (strategies on a coalition level) would conform among participating parties, while potentially confront other parties (cf. Achrol & Kotler, 1999). Complementary or challenging strategies as response to other parties' strategies, conform (complementary) or confront (challenging) these, while on the wider network level conform or confront also other parties. Strategies departing from the individual company may have meanings that result in them conforming to certain parties, while confronting others.

Based on the above discussion, we propose that it is not enough to distinguish conforming strategies from confronting ones. We suggest describing strategies as copying, shared, complementary, challenging, and company-rooted strategies, and consider conforming and confronting as a scale rather than absolute strategies. Here, challenging and company-rooted strategies would generally be more confronting; shared would be conforming on the coalition level; complementary would be foremost confronting; and copying would be confronting or conforming based on relative positions of companies.

What then decides whether a strategy is foremost conforming or confronting? The case indicates that a context marked by competition lead to more confronting strategies, while a collaborative context invites to more conforming strategies. This is for instance illustrated when opportunities to become an OEM to TDK and Ricoh led Ritek to establish such a strategy (conforming through complementarity). As competition grew fierce, companies, including Ritek, tried to build their positions, and the battle on standards also led to several confronting activities among the companies in the industry. The characteristics of the individual company, in terms of its capabilities and financial strength, were another motor for confronting strategies. This is seen in the development of Ritek, and how the company moves from focusing on primarily conforming strategies (shared, complementarity and copying) to increasingly confront current structures (challenge and company-rooted strategies). An interesting paradox appears here, when strategies become more company-rooted, as the company establishes a stable network position, but consequences are increasingly embedded in past interactions (decisions on who to interact with or not follows from previous decisions taken, such as when MKM turned down Ritek based on previous interaction between the companies).

5.2 Network consequences

As for network consequences, we divide those into intended and unexpected (cf. Anderson et al., 2001). Table 1 points to how all strategies had both intended and unexpected consequences. The intended consequences relate to how Ritek managed to achieve its intended strategy, which often included how the company allied with other parties such as customers, suppliers, or collaboration partners. Unexpected consequences include reactions that reinforced intended strategies (such as when Ritek gained OEM orders from Fuji while it had only solicited such orders from TDK and Ricoh); had spin-off effects (for example how Ritek's alliance with Toshiba strengthened an existing relationship); led to a strategy not being fully accomplished (such as when Ritek established an alliance with Ricoh but did not meet intended results); or completely disabled a strategy (for instance when BD-R became the de facto standard, Ritek's strategy to impact standardization activities was lost). Unexpected consequences either changed contents of relationships (cf. Palmatier et al., 2008) or meant that relationships were dissolved (cf. Möller & Halinen, 2003). Intended consequences more often included the establishment of new relationships (cf. Ford, 1980).

5.3 Linking strategies to consequences

Based on how a strategy that intends to conform may confront other parties, and based on the interactive context which included parallel changes, reactions to previous consequences, and also how the strategy is embedded in decisions taken by others, it is difficult to link different strategies to different consequences. However, through treating each strategy as the starting point and viewing its network consequences, patterns of tendencies with explanatory power emerge (cf. Welch et al., 2011). The case points to how complementary strategies were those that for the most part met their target in terms of intended consequences. Unexpected consequences predominately reinforced these strategies. Shared strategies on the coalition level indicated intended consequences based on how they were formed on that level, while in the wider network, they may have lead to spin-off consequences or consequences that did not fully meet intentions of the focal company. Copying strategies resulted in unexpected consequences based on how copied parties acted in their turn. Company-rooted and challenging strategies led to consequences that meant that they were not fully accomplished or completely disabled. Table 2 summarizes the strategies and their network consequences.

Table 2: Link between strategies and network consequences

	Strategy	**Network consequences**
Conforming	Reflexive - Complementary	Intended and reinforcing
	Shared	Intended on coalition level; spin-off or not fully accomplished in wider network
	Copying	Intended and unexpected: strategy not fully accomplished
	Company-rooted	Unexpected: strategy not fully accomplished or completely disabled
Confronting	Reflexive - Challenging	Unexpected: strategy not fully accomplished or completely disabled

Returning to the analytical tool presented in Figure 1, the case findings suggest a relation between the various degrees of conforming/confronting and the network consequences. It is only challenging and company-rooted strategies that may be completely disabled, and these would be considered as foremost confronting strategies. Other strategies either follow plan, are reinforced, spun-off to new circumstances, or are not fully accomplished. These represent a mixture of conforming and confronting strategies, with complementary strategies being those most conforming. Hence a suggested link is that a more conforming strategy has a higher likelihood to be realized and the more confronting a strategy is, the more likely it will be that reactions among others disable the strategy. Conversely unexpected consequences would possibly reinforce conforming strategies, while consequences are negative from the focal company's point of view for confronting strategies.

6. Conclusions

The interest in strategy in an interactive context has rekindled in the past decade. While focus has been aimed at predominantly the nature of strategizing in such a context, studies have not focused on the link between various strategies and network consequences. This paper explicitly looks at network consequences of different strategies. The introduction raised three questions that are elaborated on below:

How can different strategies in an interactive context be categorized? Strategies can be categorized as (i) copying; (ii) shared; (iii) reflexive (complementary or challenging); and (iv) rooted in the individual company (with no or limited network attention). These strategies express different degrees of conforming and confronting network parties.

What network consequences, intended and unexpected for a company follow from the strategic option the company has at its disposal? Intended network consequences indicate how other parties enable the realization of a strategy. Unexpected network consequences express direct and indirect reactions that reinforce, lead to additional consequences, and partly or fully disable the planned strategy.

How are different strategies linked to the network consequences? The present study indicates how the more conforming the strategy, the more probable that it meets its plans or have positive, reinforcing consequences. The more confronting the strategy, the more likely that it is disabled, in full or part. Consequences are here foremost negative for the focal company. More confronting strategies also suggest to lead to changes of relationships, while conforming strategies foremost changes contents of relationships) (cf. Halinen et al., 1999 on radical and incremental effects). Intended consequences delimit themselves to those parties considered when the strategy was formulated, and based on how conforming strategies rarely expects major adjustments by other parties, consequences suggest an overall resistance to change, where other parties act negatively to changes induced on the relationships. Figure 3 outlines links between strategies and consequences, and company and context characteristics as antecedents to strategy.

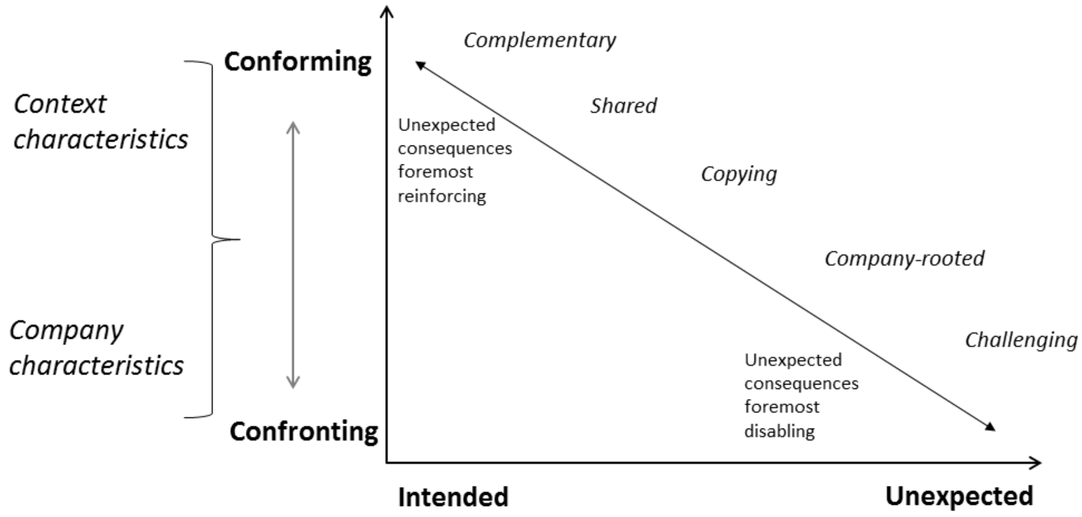

Figure 3: Link between strategy and network consequences

6.1 Theoretical contribution

The paper contributes to the growing interest for strategy in a network context and the link between different strategies and network consequences in the following ways:

- The categorization of strategies into copying, shared, reflexive, and company-rooted adds to research on strategy in interactive contexts, through pointing to a more fine-tuned categorization than conforming/confronting and pointing to conforming and confronting as scale-measures rather than absolute categories. The division between company-rooted and network challenging strategies is important as it indicates different viewpoints by the firm, and shared strategies acknowledge the net as an analytical level in networks.

- The paper indicates how strategies may include other parties in terms of considerations (reflexive or copying strategies) or as joint parties (shared strategies), and how intended consequences foremost appear on that level, while unexpected consequences occur in the wider network. The paper divides unexpected network consequences into reinforcing, spin-off effects, partly disabling, and fully disabling, and thereby adds to understandings and categorizations of network consequences.

- The link between strategies and network consequences points to how the more confronting the strategy, the more unexpected consequences, and also the more negative their impact on the strategy realization, which also attracts attention to the importance of including the network in strategy formulation. This adds to present understanding on strategizing in interactive contexts, and highlights the network's impact to the strategy literature.

6.2 Managerial implications

This paper points to how the type of strategy matters for network consequences. Strategy needs to be viewed as a portfolio of activities in an interactive context, where the network may, for instance, reinforce or disable any such strategic activity. Network insight (cf. Mouzas, Henneberg & Naudé, 2008) is important for companies based on how unexpected consequences appear beyond those parties considered in the strategy formulation.

A manager should in strategy formulation and implementation consider the following questions: What parties are considered and what parties are disregarded with the suggested strategy? What other strategic options does the company have? What changes are forced on other parties and what activities among them are needed to realize the strategy? What indicates that these parties would act accordingly (their motivation)? How can their motivation be helped so as to adjust to the strategy? What consequences may follow?

6.3 Future research

The paper presents a single case study and the findings are contextually dependent. This infers that the findings could be different in different contexts. In this respect, we would suggest additional studies on strategy and network consequences, which may include empirical research in other countries and technological contexts. The awareness of the network in strategy formulation and how that affects consequences would be of interest to research through comparative studies, as would the difference between small and large companies, established and new firms, and other differences in company and context characteristics as influences on strategy.

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Appendix 1: List of interviews

Company	Relation with Ritek	Informant position (number of interviews)	Numbers of interviews
Ritek	N/A	General Mgr. (3); MKT head (2); Sales Director (1); Sales Mgr. A (2); Sales Mgr. B (1); Deputy General Mgr./Prod Dept. (1); Deputy General Mgr./Research Center (1); R&D Div. Mgr. (2); Process Div. Mgr. (1); Technical Mgr. (1); Director (1); QA Mgr. (2); Project Deputy Mgr. (6); Account Mgr. (4); Prod Director (1); Prod Mgr. (1); QA Section Mgr. A (2); QA Section Mgr. B (4); Global Logistics Mgr. (1); Customer Quality Eng. A (1); Customer Quality Eng. B (1); Customer Quality Eng. C (1)	40
TDK	Customer	Sales Mgr. (2); Procurement Mgr. (2); QA Mgr. (1); QA leader (2)	7
Ricoh	Customer	Senior Mgr. (1); Sales Mgr. (1)	2
Fuji	Customer	Operations Mgr. (1)	1
Maxell	Customer	Managing Director (1)	1
Ciba	Supplier	Sales Mgr. (2)	2
Solar	Supplier	Sales (1)	1
Prorit	Supplier	General Mgr. (1); QA Mgr. (1)	2
Formosa Plastics Group	Supplier (of poly carbonates)	Administrator (2)	2
SABIC	Supplier (of poly carbonates)	Strategic Account Mgr. (1)	1
Industrial Tech Research Institute of TW	Complementor	Director (1)	1
LITEON	Complementor (drive maker)	Senior Engineer (1)	1
Accesstek	Complementor (drive maker)	Product Mgr. (1)	1
Gigastorage	Co-opetitor	Deputy General Mgr. (1); Dept. Mgr. (1); Sales Mgr. (1)	3
MKM	Co-opetitor	Sales (1)	1
Daxon	Competitor	Vice President (1); Senior Mgr./R&D (2); Senior Sales Mgr. (1)	4
Optodisc	Competitor	Senior Mgr. (1)	1
Digital Storage Technology	Competitor	Finance Mgr. (1)	1

Appendix 2: An overview of network parties

Company	Headquarters	Employees (ca) in 2002
Ritek (the focal firm)	Hsinchu, Taiwan	3,250
TDK	Tokyo, Japan	35,000
Ricoh	Tokyo, Japan	67,300
Fujifilm (Fuji)	Tokyo, Japan	37,200
Mitsubishi Kagaku Media (MKM)	Tokyo, Japan	38,600
Toshiba	Tokyo, Japan	176,400
Ciba	Basel, Switzerland	19,000
Solar Applied Materials Technology Corp. (Solar)	Tainan, Taiwan	270
Prorit	Miaoli, Taiwan	200
CMC	Taoyuan, Taiwan	3,000
Gigastorage	Hsinchu, Taiwan	450

Sources: Company annual reports and documents