Business strategic conflict in computer-mediated communication

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Abstract
In this paper, we introduce the concept of business strategic conflict and examine its influence on communication media selection and use in inter-organisational collaborations. In doing so, we show the inherent complexities in the computer-mediated interactions between synergistic companies in the same industry. The work draws on a field study carried out for 5 months in a case of a product design collaboration between two large high-tech corporations in Taiwan and Korea. Findings show that at an early stage of the collaboration, the use of media has shifted substantially from FTF meetings to email, while it is also found that, due to the competitive nature of the inter-organisational collaboration involved, business strategic conflict significantly influences media selection and, in turn, it is influenced by the selected media. Our results contribute to media selection theories that have so far neglected the coopetitive inter-organisational environment.
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Introduction
In today's global context where organisations form collaborations and alliances with others, even with their competitors, in order to survive and prosper, information technology plays a central role as it facilitates the overcoming of spatial and temporal barriers. In this regard, research has shown that computer-mediated communication (CMC) offers an effective integration of expertise from dispersed organisations and reduces the time and costs associated with travelling (Bal & Gundry, 1999; Prasad & Akhilesh, 2002). CMC is often described as a 'lean' type of communication owing to the lack of physical interaction and social contact (Daft & Lengel, 1986; Maznevski & Chudoba, 2000; Defillippi, 2002; Friedman & Currall, 2003). As a result, it can impose 'high understanding cost' (Friedman & Currall, 2003) and 'social cost' (Panteli & Dawson, 2001), and subsequently it may jeopardise inter-organisational collaborations. Further, when there is a degree of competition between the organisations involved, the challenges are expected to be even greater. In this paper, conflict in such coopetitive environments is termed as 'business strategic conflict', and within this context, our study aims to explore media selection in an inter-organisational business collaboration where the companies involved have also been competitors.

Although several communication media selection theories exist to explain why and how a medium is chosen, the understanding of CMC selection in relation to organisational differences has remained limited (Watson-Manheim & Belanger, 2007; Byron, 2008). This study therefore

was undertaken to add to the limited amount of knowledge in this field of research by taking a focus on CMC selection at the inter-organisational level. Previous research into the choice of communication media has, on the whole, ignored the coopetitive nature of inter-organisational arrangements. Based on this, we tend to understand whether and how the existence of business strategic conflict affects the selection of communication media and how this inter-organisational conflict is influenced by the selected media in the course of the business coopetition. With an increasing number of global business arrangements that ultimately imply high reliance on computer-mediated communication, exploring inter-organisational conflict and its impact on CMC selection becomes of vital importance.

The fieldwork was carried out in a large high-tech company, T-Com (pseudonym), in Taiwan for 5 months (June 2007 – October 2007). Sixteen joint projects in the business collaboration between T-Com and its supplier company AK (pseudonym) in Korea were observed. In addition to the customer–supplier relationship between these two companies, there was a high degree of conflict in business strategies, namely because these two synergistic companies collaborated on a product design within a competitive organisational relationship. As such, they were not only collaborators but also competitors in the market, and awareness of this competitive relationship made the individuals involved in the joint projects, which were formed out of this inter-organisational collaboration, sceptical about their working arrangement. This led to conflict escalation that eventually resulted in the termination of the collaboration. In this paper, a number of events and incidents are presented to illustrate the impact of business strategic conflict on CMC selection and the communication style adopted in the CMC interactions between the two companies. In what follows, we discuss the conceptual foundations of this study.

Conceptual foundations

In this section, we draw upon the literature on inter-organisational coopetition, conflict and CMC to develop the conceptual foundations of the study.

Inter-organisational coopetition

In order to survive the uncertain business environment, companies need support from other companies and thus they cooperate on joint projects (Turnball & Wilson, 1989). The importance of organisational relationships has been highlighted in several publications. For example, the Dell case (Magretta, 1998) points out the importance of business integration in enhancing the quality of customer service and improving problem-solving outcomes. Similarly, Kim & Michell (1999) investigated the organisational relationship network in Japan, which was deemed to have contributed to the success of Japanese companies. They found that close relationships lead to a better sharing of information, an increase in investment on new projects and a reduction

in the indirect and direct costs of products. Nielson (1998) described the concept of 'closeness' in organisational relationships by a causal model; as he puts it 'closeness is a component of the ''atmosphere'' of the relationship' (p. 443), and it will bring about benefits for organisations by joint working and information sharing.

Accordingly, resource exchange and knowledge sharing are seen as key motivators for one organisation cooperating with others (Whitehead, 1986; Chan, 1992; Reardon & Hasty, 1996). However, these varied resources and knowledge between companies are usually the organisations' core competencies and revealing them may endanger their survival. This can lead to companies being suspicious of business collaborations and may cause conflict. The joint venture, S-LCD, formed by the two electronic giants SONY in Japan and Samsung in South Korea (Frauenheim, 2004) is a typical case. In 2003, these companies agreed to share patents in order to speed up the development of basic technologies. Although cross-licensing (Tanenaka & Layne, 2004) is aimed at avoiding unnecessary conflict such as the waste of time in resolving disputes with regard to infringement of patent rights, this has not been the case and these companies remained serious competitors in the consumer-electronics industry. Employees in these companies were, however, reluctant to share their knowledge with those in the other, thus, obstructing any business collaboration and negative conflict has ensued. That is, the companies have struggled in this case to find a healthy balance between collaboration and competition.

It follows, that building inter-organisational collaborations, to some extent presents a paradoxical dilemma, in that current cooperators may become future competitors, while competitors may become cooperators and these may challenge the organisational relationship (e.g. Amason et al., 1995; Cox, 2004; Reid et al., 2004). Earlier studies (Gules & Burgess, 1996; Tang et al., 2001) have argued that such organisational relationships can be generally categorised based on either competitive or collaborative models. The former is when companies pay little attention to developing long-term relationships and use instead a tough negotiation style. In contrast, the latter model refers to the situation when one company co-works with others and each is concerned about developing mutual benefits and long-term cooperation. However, this categorisation has been criticised as being too simplistic; that is to say, companies do not always adopt either competitive or collaborative strategy towards the others. Instead, both competitive and collaborative organisational relationships can exist simultaneously (Bengtsson & Kock, 2000; Wang & Krakover, 2008), which leads to the situation of 'coopetition' (Brandenburger & Nalebuff, 1996). The current business climate supports the emergence of coopetition in the global marketplace. It is within this context of simultaneous competition and collaboration, that we

introduce the concept of 'business strategic conflict'. We discuss the occurrence of conflict caused by business coopetition further in the section that follows.

Business strategic conflict

The term conflict originally meant a fight, battle or struggle, and has gradually come to include disagreements and opposition of interests and ideas between two or more parties (Webster, 1983; Pruitt & Rubin, 1986). Expanded definitions also include psychological aspects, such as blame, anger, fear and threats (Rubin et al., 1994). Conflict can be differentiated at six levels, which include the intra-individual, inter-individual, intra-group, inter-group, intra-organisational and inter-organisational levels (Suliman & Abdulla, 2005), but often it is classified at only three levels: inter-personal, inter-group and inter-organisational (Putnam & Poole, 1987). Intra-individual conflict occurs within a person himself/herself when he/she experiences different goals and roles, and thus certain needs are impeded. Inter-individual conflict occurs when two persons' purposes, opinions and actions tend to disagree with each other. Intra-group conflict means friction and discrepancies that happen among members within a group. When conflict happens in two or more groups having contradictory goals, issues and actions, it is named as inter-group conflict. Conflict at an inter-organisational level refers to differences between organisations that may contribute to disagreements. The inter-organisational type of conflict with organisational and possibly national cultural differences, and which occurs within an 'environmental context' with over-changing organisational relationships (Phatak & Habib, 1999), displays additional complexities to the other types of conflict, yet reference to it in the literature has been limited.

In order to survive or to control the competitive marketplace, companies cooperate to share scarce resource. In such cases, inter-organisational coopetition becomes a strategic approach of enhancing the resource required. Based on this, we introduce a specific type of inter-organisational conflict, business strategic conflict, to signify this coopetitive environment. This type of conflict is especially likely to occur when companies are aware of the business coopetition between them. Because of the dynamics and complexity of the business environment, inter-organisational conflict occurs in a unique pattern, one that is different from individual conflict and group conflict scenarios (Rubin et al., 1994).

Communication media selection

CMC has been seen as 'a process of human communication via computers, involving people, situated in a particular contexts, engaging in processes to shape media for a variety or purposes' (Ulijn & Lincke, 2004, p. 112). There are various forms of CMC media available and several media selection theorists have investigated why and how different communication media are selected. In this section, we discuss media selection by taking into account the natural characteristics of communication media and by using relevant theories on media choice.

Face-to-face (FTF) communication is a common form of social interaction in which people attend in person to complete joint tasks, and it is perceived as the best communication medium (Poole et al., 1992). By contrast, as shown in Table 1, electronic communications exhibit different features to FTF conversations. Clark & Brennan (1991) argued that there are six structured features to FTF meetings: co-presence, visibility, audibility, co-temporality, simultaneity and sequentiality. Co-presence allows people to look at what others are doing in the same surroundings. Visibility refers to the fact that people are able to see the others, even though they are not working in the same place. Audibility allows people to hear the others' voices, so that sound and intonation changes can be recognised. Co-temporality is the feature that people's speech and other utterances can be received immediately, as they are being produced. Simultaneity allows all members to express and receive messages at the same time. Sequentiality is the characteristic that people are involved in a continuous conversation that they cannot get out of sequence. All members in FTF meetings are linked together without time lags.

In contrast to FTF communication, CMC does not exhibit all of the above features; email, for example, retains none of these features (Friedman & Currall, 2003). However, email has appeared as the dominant tool of electronic communication in business environments (Lee, 1994; Panteli, 2002). Friedman & Currall (2003) pointed out that the two key features of email, namely reviewability and revisability, which are only available in this form of communication, explain why email has

Table 1 Structural features of communication media

Medium	Co-presence	Visibility	Audibility	Co-temporality	Simultaneity	Sequentiality	Reviewability	Revisability
FTF	V	V	V	V	V	V		
Telephone			V	V	V	V		
Audio-conferencing			V	V	V	V		
Video-conferencing		V	V	V	V	V		
Email							V	V

V: The medium is associated with the feature.

become the main form of communication in today's business environment (Watson-Manheim & Belanger, 2007).

Apart from FTF meetings, a number of other communication media are widely available, for example telephone, audio-conferencing, video-conferencing. Table 1 shows a summary of the structured features of the most common forms of communication media taken from previous research (Clark & Brennan, 1991; Friedman & Currall, 2003). The table is also used to compare the natural features of main communication media tools.

Several theories exist to explain the phenomenon of communication media selection. The main theories cited in this field are primarily information or media richness theory, social presence theory and social influence theory (Carlson & Davis, 1998; Kock, 2004; Watson-Manheim & Belanger, 2007).

Information richness theory identifies rich and lean media by their objective properties and the invariant characteristics of the media themselves. According to the perspective of information richness theory, choosing media to collaborative tasks is based on the need to reduce communication equivocality, and thus FTF meeting is considered the richest medium and other CMC tools are relatively lean. It explains that the different attributes of communication require different media with varying levels of information richness (Daft & Lengel, 1986). For instance, managers choose higher information richness media for equivocal communication and/or uncertain tasks, and lean media are selected for that with less equivocal content and/or high task uncertainty (Daft & Lengel, 1986; Daft & Trevino, 1987).

However, communication is not just about information interchange, but also about the way information is communicated (Carlson & Davis, 1998). The studies in this field have presented inconsistent results with regards to the choices of communication media (e.g. Sproull & Kiesler, 1992; Dennis & Kinney, 1998). These inconsistent results also indicate that the information richness theory offers limited explanation for media selection and consequently the theory has been criticised by several researchers. Some scholars have argued that the characteristics that influence the choice of communication media should include social context. Communicators possess different understandings of the capability and potentials of a particular communication medium based on their prior experience, not only with the communication technology itself but also with the communication partners, messaging topics and their organisational context (Carlson & Zmud, 1999). For example, email is seen as a low-richness medium (Kiesler et al., 1984; Rice & Love, 1987), but it can improve information gathering and information dissemination strategy (Carlson & Davis, 1998), and by so doing can increase the richness of communication from the users' point of view. Moreover, situational determinants (Trevino et al., 1987; Fulk et al., 1990;

Watson-Manheim & Belanger, 2007), such as organisational norms and work environment, influence the choice of media, while contextual factors (Lee, 1994; Carlson & Davis, 1998; Carlson & Zmud, 1999), such as the 'urgency' and 'importance' of the communicated information, can also significantly affect media selection.

Short et al. (1976) developed the social presence theory where they defined media richness as 'the capacity to transmit information about facial expression, direction of looking, posture, dress and non-verbal cues' (p. 65). According to this theory, FTF is considered as having high social presence while CMC, such as email, has low social presence (Karahanna & Limayem, 2000). What is missing from this perspective, however, is the neglect of the active nature of individual agency, who, with the selective use of the communication medium, is willing and able to reveal, minimise or hide social cues in a mediated environment (Markus, 1994; Panteli, 2002).

As a consequence, social influence theories were introduced to explain the interaction between social activities and communication media selection. They have focused on discussing the role of social actors in the process of media selection (Steinfeld & Fulk, 1986; Fulk et al., 1987; Yoo & Alavi, 2001; Watson-Manheim & Belanger, 2007). Social influences can affect the choice of communication media. For example, peer group pressure among groups of people and managers' preferences can determine the type of media adopted for communication within the group (Trevino et al., 1990).

It follows that a number of theories have been put forward to describe how and why people choose one medium for communication instead of another. However, as Rice et al. (1994, p. 288) observed 'the dichotomy between ''rational'' and ''social'' influences seems artificial and perhaps unnecessary'. Thus, both the objective characteristics of media that information richness theorists focus on, and the effect of social factors on media selection that social influence theorists emphasise, are reasonable explanatory factors. More importantly and for the purpose of this study, the capabilities and appropriateness of use of a communication medium in inter-organisational communication need to be better understood. The choice of communication media in previous research has, on the whole, ignored the aspect of inter-organisational conflict, although the communication technologies to address conflict issues (Zigurs & Buckland, 1998) and seek conflict resolution between companies have been mentioned in some studies (e.g. Watson-Manheim & Belanger, 2007). Notwithstanding this, understanding of how inter-organisational interactions affect communication media selection has been very limited.

Media choice in inter-organisational conflict
CMC interaction has been a double-edged sword. On the one hand, electronic applications improve communication effectiveness (Markus, 1994; Bal & Gundry, 1999; Prasad & Akhilesh, 2002), whereas on the other, the

special pattern of communication behaviour can increase misunderstandings and confusions that potentially lead to conflict (Maznevski & Chudoba, 2000; Friedman & Currall, 2003). Hence, this study proposes that the existence of business strategic conflict would be escalated along the way of CMC. Researchers have increasingly come to recognise that there is a strong relationship between conflict and CMC (e.g. Friedman & Currall, 2003; Usunier, 2003; Ulijn & Lincke, 2004), and CMC selection in international setting have been surfaced in some research (e.g. Boudreau et al., 1998; Kersten et al., 2002; Watson-Manheim & Belanger, 2007), but studies into this phenomenon in inter-organisational settings are still limited. This study aims to cover some of this gap by considering the case of coopetition; in particular we focus on the impact of business strategic conflict on CMC selection. Therefore, two main questions have driven this study: first, 'whether and how the existence of business strategic conflict influences participants' media selection and use in an inter-organisational coopetition'; and second, 'how is this inter-organisational conflict influenced by the selected media?'

Research site
This field study was carried out during a 5-month period in 2007 and examined the relationship between two organisations, traditionally competitors but since 2005 had embarked on a collaborative engineering project. For confidentiality issues, the names of the companies are pseudonyms and some of the project characteristics have been changed.

These two companies are T-Com and AK. T-Com is a large high-tech corporation in Taiwan with about 3000 employees. This company entered in the family entertainment market in North America and it generated over U.S.$2 billion in revenue within 2 years of its launch. This phenomenal success began to take its toll on the other companies in the market, as the intensive competition they brought made it difficult for other companies to survive, and some of them announced that they would exit from the sector. Such a situation would have been disastrous for T-Com because some of these competitors were also T-Com's suppliers, and with fewer material suppliers, T-Com could have found it difficult to acquire the necessary parts for its business. Therefore, while T-Com's business was booming, the inter-organisational relationships with its competitors and also its suppliers became challenging.

AK is a Korean high-tech corporation that also operates in the family entertainment market. It comprises a big manufacturing unit that produces goods for several companies in this market, including T-Com. It is, thus, one of the supplier companies and a rival of T-Com. Their rivalry was intensified especially in the North American market as they were engaged in an aggressive price battle, and they were competing hard for the top one brand in the market. Under such serious competition, these two companies' collaboration sustained for a long period of time. However, when it became clear that T-Com was becoming the top one brand in the U.S. market, AK started to consider freezing all joint projects with T-Com and terminating material supplies to T-com.

From the view point of T-Com, the business collaboration with AK was important. If T-Com and AK's collaboration succeeds, it would contribute to a huge annual income for T-Com. If not, T-Com would face a significant shortfall in supply. Nevertheless, T-Com was worried that revealing information on product development to AK would lead to their business being in danger. AK has also been contemplating whether they should continue to support T-Com further. AK feared that T-Com's increasing market share would threaten their own sales in the market. However, T-Com's large purchases were attractive to AK. Accordingly, T-Com and AK's collaboration is operated within the context of huge business competition and thus, this is a suitable case for examining the impact of business strategic conflict on CMC interactions.

Research methods
Recognising that conflict is a sensitive issue in any organisational setting and that employees may be unwilling to talk about it, the method that was seen the most appropriate for this study was participant observation. This method allows researchers to collect rich data in a direct way (McCall & Simmons, 1969) while distortion of the results can be reduced to a minimum through direct interaction with research objects (Kluchkohn, 1940). During the field study, the first author joined T-Com headquarters as a temporary employee in the team in charge of product specifications discussion with AK. Her engineering background and experience in working in similar sectors allowed her to play an active role in the projects undertaken between these companies and to capture rich team interactions that otherwise would have been impossible.

The main sources of data contain: (1) daily logs; with this we mean that the sequence and context of both formal and informal events that happened in this case were recorded by the first author every workday during the 5 months of participant observation, (2) 21 interviews that were conducted with participants from both T-Com and AK, and (3) documentations including 1359 emails, 11 FTF meeting minutes and 5 audio-conferencing meeting minutes were collected.

The data analysis used 'comparative methods' (Glaser & Strauss, 1967) to establish analytical distinctions. At first, the data analysis was directed towards 'coding incident to incident' (Charmaz, 2006) to explore the new elements that may support or differ from the research questions. Then, by comparing incident to incident, the similarities and differences between different circumstances surfaced. Subsequently, as patterns were identified and were coded (Miles & Huberman, 1994), the later observation could be more theme focused.

Results and analysis

The evidence that has emerged from this case study has shown that awareness of the existence of business strategic conflict led to the participants being biased towards using email in their CMC selection, while telephone conversations and FTF meetings were avoided or refused. Moreover, it was observed that even though the staff in these two firms were engaged in intense business strategic conflict, the contents of email communication tended to be very polite, which revealed that email communication was being used in a rather hypocritical way. As a result, the adopted communication style did not ease the intensity of the business strategic conflict between T-Com and AK, and as the conflict escalated and became even more acute, conflicting business strategies became a taboo subject in email communications. Consequently, the unresolved conflict resulted in a break of collaboration.

Prevalent use of email in intense business strategic conflict situation

As mentioned earlier, AK was both a supplier and a rival of T-Com. The collaboration between the two companies based on their client–supplier relationship was operated in a situation of intense business competition and subsequently experienced intense business strategic conflict. This study has found that awareness of such business strategic conflict among participants influenced their choice of communication media with a bias towards email, whereas telephone conversations and FTF meetings were avoided or refused.

Example A (Table 2) shows the need for email communication in the T-Com/AK collaboration. Moreover, when the first author participated in the data collection, she was often requested to communicate with AK by email. Initially, she was not aware that the business collaboration between these two companies was strained, but became cognizant of the situation when she was blamed by a T-Com manager because she had not used email to confirm certain information. Past research has found that the level of urgency of communication affects the choice of media (Steinfeld & Fulk, 1986; Trevino *et al.*, 1987) and the importance of the communication subject also influences media usage (Jones *et al.*, 1989). However, what has emerged from our case, as Example A has shown, is that business strategic conflict appears to have more significance than the degree of importance and urgency of communication in influencing media selection.

In addition, because of email's recordability, and the fact that it can be stored and recorded in database systems, the entire development of any discussion is able to be referred back to. As a result, email discussions were open to over-elaboration, containing details that were unnecessary and unhelpful for the subjects of their communication. For instance, emails were used for sending reminders about time schedules (Examples B and C, Table 2), when for instance one T-Com engineer

wrote in an email (Example C) 'Since we discussed the issue last Friday, I haven't had any response from you and I am still waiting for the undated spec. We need your clarification to the questions I highlighted. Please speed things up'. Moreover, emails were also used for applying pressure to provide documents (Examples D and E, Table 2), such as in an email from AK to T-Com (Example E): 'I need T-Com's final approval by email on all the below projects or AK's HQ won't schedule production. It's urgent'. Such emails occurred frequently in this case study, and they all contained implied political meanings: highlighting delays in reply and response indirectly alluding to each of the opposing organisation's poor support and inefficient work. If any delays occurred, the organisation would use the emails as proof so as to be able to accuse the opposing organisation of causing the problem (Examples F, G and H, Table 2). Example F gives a typical case, where a T-Com manager said the following in a conversation with the researcher: 'I don't think any AK manager will attend the meeting. They would refuse meetings by any excuse. Then I believe these emails would prove their lack of support'. Outsiders may not easily sense the political meanings from the linguistic settings in the messages easily, but people directly involved in the discussion can realise that these emails reveal concerns and rivalry.

The research findings show that FTF meetings or telephone conversations that carry rich social cues, according to both the media richness and social presence theories, were often avoided or refused in T-Com and AK interactions. These two conversations quoted from the fieldwork illustrate this: 'I hate talking to him [AK manager]. I may shout at him if he continues to speak in a tough way', a T-Com engineer refused to attend a meeting with AK (Example I), and another T-Com engineer avoided meeting with AK people when he was invited: 'No! I have no interest in knowing anyone from their company [AK]'. The above examples have shown that though on the one hand, rich communication media tended to be avoided when conflict was being escalated, on the other, email has been found to provide another way for sustaining communication. In Example J, a T-Com engineer expressed his preference of avoiding meeting directly with AK people, while email communication was still going on between him and the relevant AK engineers and managers, as shown in Example D. This outcome supports the view that posits that when conflict occurs, people usually desire psychological distance (Heider, 1958). In such conflict circumstances, email's asocial feature can be turned into an advantage, in that when active participation is refused, interaction by such written communication allows for discussion to continue.

In sum, the email's characteristic of recordability was considered as political implicative and legally binding and thus it became the most preferred communication tool in heavy conflict circumstances. Moreover, FTF meetings and telephone were avoided or refused by any

Table 2 Evidence regarding the prevalent use of email

Example	Content	Resource
A	[AK sales manager Jeff and T-Com R&D manager Robert were having an argument] Jeff accused Robert of being mistaken about the quantity of the information of the product for next month and thus AK had not produced a sufficient number of the product for T-Com. The manager turned around to face me and said 'Joyce, could you find the email which AK sales sent to us before?' I replied, 'I didn't ask for an email from AK sales. She told me this by phone. I thought she would confirm the information with our purchasing department'. T-Com manager was mad and said, 'I told you several times that we need emails, emails!! You need to be really sensitive when working with AK. DO NOT trust their oral information!'	Daily logs
B	Dear Jin [AK manager], We've been waiting for your response for two weeks. Could you hurry it up? Robert [T-Com manager]	Email records
C	Dear Li [AK engineer] Since we discussed the issue last Friday, I haven't had any response from you and I am still waiting for the updated spec. We need your clarification to the questions I highlighted. Please speed things up. Wong [T-Com engineer]	Email records
D	Dear Li [AK engineer] I haven't heard anything from you for a week. We need you to clarify the specification urgently. Please speed things up. Best regards, Joseph [T-Com engineer]	Email records
E	Dear Shu [T-Com purchaser] I need T-Com's final approval by email on all the below projects or AK's HQ won't schedule production. It's urgent. Ling [AK sales]	Email records
F	T-Com had been waiting for AK's confirmation regarding a design issue for over 2 weeks. Robert [T-Com R&D manager] was becoming impatient. He tended to write an email to AK manager for requiring a meeting. I (the researcher) asked him, 'Why don't you make a phone call to him? Isn't it quicker?' He then answered, 'I don't think any AK manager will attend the meeting. They would refuse meetings by any excuse. Then I believe these emails would prove their lack of support'.	Daily logs
G	Dear Li [AK engineer] … I couldn't understand why such a simple engineering change took you two months to complete. 31/July – engineering change notice released from AK 1/Aug – T-Com asked for clarification regarding some unclear information 9/Oct – Li replied to the email (……) Wong [T-Com engineer]	Email records
H	Dear Sam [AK manager] I haven't received your document for spec reviewing & the certificate/banned use of substances information…… Best regards, Robert	Email records
I	Alan [T-Com engineer] was writing an email to discuss a simple technological issue with Sam [AK manager]. I saw Alan was trying to draw a picture to illustrate the issue, so I asked him, 'Sam is usually very busy. You may wait for several days to get his email reply. Why not just call him? If he didn't understand the issue, you can explain it to him'. 'I hate talking to him', Alan responded in a cool way. 'I may shout at him if he continues to speak in a tough way'. I knew Alan and Sam had arguments before, so I offered help, 'Would you like me to call him to clarify the issue?' 'Oh … That would be great. Thank you'. He answered happily.	Daily logs
J	Joseph [T-Com engineer] helped me [the researcher] to set up a machine for the meeting with Sam (AK manager) and Pan (AK's engineer). Joseph advised, 'I'd like to warn you that the AK people always behave in a very tough manner. You should brace yourself for this meeting with them … Months ago, Robert was away in China and I was asked to attend the meeting with Sam. The way he spoke to me was like he was 'lecturing' me, telling me that my testing methods were incorrect, like I was an idiot. He complained on and on and I didn't get any chance to speak at the meeting. I was upset. How can he be so tough towards his customers?!' I nodded and said, 'Yes, thank you … . But Pan is a new member in the AK team. He might be more polite. Would you like to join our meeting?' I asked. 'No. I have no interest in knowing anyone from their company'.	Daily logs

excuses because people were reluctant to accept a compromise under tension and compulsion, and intensive social cues and physical interaction might lead communicators into stressful situations. Email thus turned its disadvantage of asocial feature to advantage. While people stopped meeting and speaking to each other, written communication provided another way to sustain their connection.

This study has shown evidence that business strategic conflict influences participants' communication media selection in favour of email. However, it should be noted that business competition in this market where T-Com and AK operated was a complex one, so that these two companies usually lingered in obscurities of business coopetition, either being more collaborative or competitive to each other. As a result, the unresolved business strategic conflict was deeply rooted among the participants between these two companies, and participants' communication behaviour in email was influenced.

Stylised email communication in the case of business strategic conflict

Having shown that where there was business strategic conflict, email became the preferred communication medium, in this section we present evidence of the communication styles that occurred in these email interactions.

Although the participants were involved in intense business strategic conflict, their communication behaviour was neither aggressive nor hostile in the vast majority of the emails. Instead, offensive language hardly ever occurred in email, which contrasted with spoken communication where it was used regularly. In this regard, several examples in Table 3 offer a comparison of how the same communicators with the same events presented different communication manners and styles between telephone conversations (Examples K and L) and email discussions (Examples M, N, O and P). This shows that while strong language was used in verbal communication, written communication was presented in a more polite, although at times more cynical, manner. Considering this aspect in greater detail, Example L and Examples N, O and P provide a significant contrast. When T-Com's R&D manager, purchasers and AK's sales manager were involved in an argument, their expressions in the conversations were harsh and tough, such as 'What! It is a threat!' However, in the emails, they behaved more politely using for instance 'Sorry' and 'I really appreciate your support as always'. AK has often adopted a tough negotiation style towards T-Com, and vice versa, but email communication between them was processed in mild-mannered expressions. People expressed apology and appreciation to those in the opposite firm even though the business relationship between these companies was tense. 'Sorry', 'thank you' and 'appreciate your support' were written in almost every email. However, the data collected from participants' everyday

communication and phone conversations did not show the same. T-Com actually complained about AK's ineffective responses and AK argued that T-Com raised difficulties. Apparently, this interesting contrast explains that communication tools are instrumental to communication behaviour.

The outcomes of this case study provide two conceivable explanations for email preference: one is its natural characteristic of revisability that allows people to check over and revise the content before sending it out; the other is that written communication may be operated and manipulated sensitively and neutrally as previous research has shown (Panteli, 2002).

Verbal communicators may not have time to sift through all appropriate vocabulary and ideas to develop a conversation effectively, and typically pick the first words that occur to them (Chafe & Danielewicz, 1987), but writing can be produced at any pace and speed set by the writer alone (Yates, 1984). So, it is found that participants in this case generally pondered on the words, sentences and even tones for emails while writing and reviewing the contents repeatedly. Impulsive and emotional expressions could therefore be avoided.

Moreover, collaboration between T-Com and AK was in limbo during this fieldwork. The relationship between these two organisations was in an uncertain condition because of a changing market environment that employees in these companies cannot control and in which there was no advancement and improvement for their business collaboration. Because of this uncertainty in the status of their coopetition, any communicative mistake could cause a failure in their business collaboration. Business strategic conflict was a taboo subject in email communication as email's written-based discussions can be used as formal, legally bounded statements and this reduced further opportunities to resolve their conflict. That is, employees in the two companies had never given opinions to the conflicting business policy by email, but only convey information by spoken communication, particularly during informal conversations (Examples Q and R, Table 3). Although the participants informally did talk about the potential of terminating their business collaboration, such conversations appeared to be increasingly infrequent, as explained above, as participants tended to avoid telephone or FTF communication. Because the conflicting business strategies had never been tackled through in any form of media, the collaboration between these two firms was never auspicious, and it was terminated in the end.

The above examples show that the sensitivity of conflict was obvious and easily noticed from both verbal communication and non-verbal signs (e.g. a sigh, a laugh or hesitant responding). However, in the email discussion, it was difficult to recognise the signs to understand the authenticity of the communication, such as whether a statement was a true one or an excuse for covering up conflicting business policies because there

Table 3   Evidence about conflict transformation in emails

Example	Content	Resource
K	I (the researcher) called Jin (AK manager) for a discussion on a technical issue. He picked up the phone. I introduced myself (this was the first time I had called Jin) I said that I would like to discuss the cosmetic spec. He suddenly shouted at me 'Why are you so fussy? Why are you still not satisfied with our support? I've told you several times we've done our best. We can't change anything for you …' Initially, I didn't say anything but only listened to him. He complained endlessly and impolitely. Then I was getting annoyed and answered back angrily. Then I answered back, 'Stop shouting!! I just want to discuss the issue. If anything I said was wrong, please correct me. All the questions that I wrote in those emails were pure questions. I really don't understand why you couldn't respond to one single email in the past two weeks!'……	Daily logs
L	Shu [T-Com purchaser) came to our office to speak with Robert. She looked anxious and was worried about the progress of the material approval. Shu talked to Robert, 'Jeff [AK sales manager] told me that if we can't approve the material today, he would transfer the 3000 pcs we ordered to other companies'. Robert answered, 'What! It is a threat! We pushed their engineers to issue the spec. sheets to us but we have received no response over the past two weeks. We received the document just this morning and you want us to approve it today!! It is ridiculous!! You want me to close my eyes and sign for the approval, don't you?! You should be pushing the supplier to provide the documents earlier, rather than pushing me!!'	Daily logs
M	Dear Joyce I am really sorry for all the confusion. I'll resend the spec … Please see the reply below to your questions …… Best regards, Jin [AK engineer]	Email records
N	Dear Robert [T-Com Manager] Sorry for the late response. Li will send you the document later today. Best regards, Jin [AK engineer]	Email records
O	Dear Robert [T-Com manager] I really appreciate your support as always. As you know, we respect your professional knowledge and hard work. I fully understand your feelings. Sorry for causing you inconvenience. But, it is very difficult to complain to AK at such a critical time otherwise they would refuse to supply the material to us. I can only now express my appreciation to you and apologise any inconvenience caused. Hope you can understand. Shu [T-Com purchaser]	Email records
P	Dear Shu [T-Com purchaser] We always understand the situation of heavy workloads and tightening schedule pressures. Thank you for your great support. Robert [T-Com manager]	Email records
Q	I [the researcher] received a phone call from Joe [AK manager]. He wanted to speak to Robert [T-Com manager] but he was not at the seat so I answered the call for him. Joe said that it was impossible to provide the materials to the quality that T-Com requested as he had addressed in emails. He explained this to me in quite a nice manner. This is our conversation on the phone. Joe: I think you've got the emails for explaining the material shortage problem. I am sorry that our company can't support you the materials with the better quality. Joyce: It has been an open secret that your company does manufacture the materials of a better quality. Why don't you sell them to us? Joe: Um … It's our company's policy. Joyce: I don't understand it. We would like you to support us with higher grade materials and you do produce the ones we need. Why don't you just sell them to us, then we won't waste more time on arguing about the quality? Joe: (There was silence for a few seconds. Joe cleared his throat and continued.) As you know, your company and our company are serious competitors in the North American market. Do you think we would let you have the better-quality materials? ……	Daily logs
R	Finally, the problematic technology issues have been sorted out after protracted discussions. However, today, T-Com's project manager issued an email saying that there was a material shortage in AK. All on-going processes for this project would therefore have to be terminated. Later on, I [the researcher] received a phone call from Sam [AK manager], 'I am so sorry to hear that we are facing a shortage of supplies. We have spent so much time on these technology issues, but the project has finally come to an end because of a business issue'. I answered, 'It's because of your company's policy, not because of product shortages, isn't it? Our business in North America is getting stronger, so you don't want to sell the materials to us. Everyone knows that!!' He suddenly laughed. It sounded extremely sarcastic to me.	Daily logs

were no clues like those in direct contact scenarios. Examples Q and R are typical cases of this. The email statements regarding the pending material support explained that it was because AK experienced a material shortage but, according to AK managers' responses on the phone, it seemed that business policy was instead the real reason (Examples Q and R show the contextual conversations in details).

In this case study, business strategic conflict in email communication was expressed in a different pattern from verbal communication. It was obvious that CMC was influential for participants' communication behaviour because of their perspectives of the technologies' objective features (such as email's recordability). However, more importantly, this study also pointed out that communication behaviour change in terms of media selection is far more than just a technical matter; instead it is influenced by complex elements including social influence (e.g. manager's insistence on email communication) and situational determinants (e.g. business competition in the market), which can lead to a conflict escalation and result in the business collaboration failure between the companies involved.

Discussion

The relevant elements that emerged in this study, with regards to the connections between business strategic conflict and media selection, are summarised and further discussed in this section.

Highly reliance on email communication

This study has investigated a case of inter-organisational coopetition that showed heavy reliance on the use of CMC, especially email. Previous researchers have suggested that geographic distribution and thus lack of physical proximity can lead users to choose 'lean' communication media, rather than the richest medium of FTF (e.g. Trevino et al., 1990; Poole et al., 1992; Kock, 2004). Our study has shown that it was the existence of business strategic conflict that characterised the inter-organisational collaboration in consideration that exercised an influence on CMC selection.

A number of examples in this paper showed that the telephone conversations were usually avoided while conflict between T-Com and AK was intensified. Moreover, several examples indicated that FTF meetings were refused when complicated issues were urged to be resolved. Therefore, although previous researchers have found that the level of urgency of communication affects the choice of media (Steinfeld & Fulk, 1986; Trevino et al., 1987) and the importance of the communication subject influences media usage (Jones et al., 1989), this study argues that the impact of business strategic conflict on CMC selection is more significant than the factors of the importance and urgency of communication.

Email with its feature of 'recordability' was established as a means for legally binding agreements, and thus it became the major communication media in situations where there was business strategic conflict. By recording emails, evidence was collected and could be used to make judgements on responsibility, for example to show opposite parties' mistakes or breaking of agreements. Concerns, therefore, regarding business strategic conflict encouraged participants to communicate by email.

Moreover, this case study provided evidence in connection with email's written-based nature to explain why a certain communication style was elicited; first, email's natural characteristics of reviewability and revisability (Watson-Manheim & Belanger, 2007) allowed people to ponder over and revise the content before sending it out, and second, written communication taking the form of formal statements was manipulated to appear neutral and task-oriented while emotions were hardly expressed in this form of communication.

Therefore, while business strategic conflict between T-Com and AK escalated, participants hardly exchanged information to signify the competitive status of their collaboration in email communication. That is, the overall email discussions have given false evidence that these two companies were in harmonious relations, whereas conflict actually exacerbated and, as a consequence, their business collaboration was terminated during the course of the study.

Although email communication was preferred when the companies are involved in heavy business strategic conflict, participants' communication style in email is not necessarily hostile. A great deal of examples in this case study presented that email communication was employed in a polite way or, more precisely, in a hypocritical way. That is, harsh and offensive language regarding conflicting business policy could show up in telephone conversations, but hardly ever in emails. As it was seen in the examples addressed earlier, people expressed apology and appreciation to those people in the opposite firm even though the atmosphere was tense. It became apparent that 'sorry' in these email does not mean 'sorry', and 'thank you' maybe meaningless (Panteli, 2002).

Conflict escalation in email communication

Overall, in this case study, email was the most widely used medium owing to both its inherent characteristics (such as recordability and reviewability) and the business strategic conflict situations that prevailed. The above discussion presented how the existence of business strategic conflict influenced communication media selection, and, in this section, we discuss how the choice of CMC, mainly email in this case, influenced the escalation of business strategic conflict.

The study has shown that the role of email in conflict situations was far more than a pure communication tool and its political implications were manipulated as a 'business weapon' that impeded communication

effectiveness. As a result, the content of these email discussions were open to over-elaboration, containing details that were unnecessary and unhelpful for the subjects of their communication. Such emails occurred in this case study frequently, and they all possessed political implicative meanings between the lines of the message. For example, highlighting delays in reply connoted the other organisation's poor support and inefficient work. As such, emails were used by one organisation as a proof to accuse the other for causing delays.

The fact that employees in these two companies communicated via email in a foreign language (i.e. English in this case) might have further contributed to this conflict escalation. Hence, it was not easy for people in such circumstances to show respect properly and even more challenging for them to negotiate an agreement with tact and diplomacy. It became apparent that email communication in a foreign language encountered serious difficulties when attempting to convey non-verbal signs. As a consequence people tended to establish their non-verbal interpretations by decoding the text through the lens of their prejudices with much pre-existing business strategic conflict involved, and this can easily result in misunderstandings that lead to conflict escalation.

What this study therefore shows is that in the case of intense business strategic conflict, such as that of T-Com and AK, email was not only the preferred CMC, but it was also used as a 'business weapon' that ultimately exacerbated business strategic conflict and resulted in their collaboration failure.

Conclusion and implications

Our study began with an interest to understand the nature of conflict in the inter-organisational global context. In doing so, we have integrated theories from three areas: conflict, inter-organisational business and CMC, and we have introduced the concept of business strategic conflict to signify strategic organisational differences in the coopetitive business setting. In our case study, it has been evident that the use of media has shifted substantially from FTF meetings to email, while it was found that, due to the competitive nature of the inter-organisational collaborations involved, business strategic conflict significantly influences media selection and, in turn, it is influenced by the selected media. With this finding therefore, we contribute to the media choice literature that so far has neglected the inter-organisational context. Further, this study has extended previous research on written communication (e.g. Yates, 1984; Friedman & Currall, 2003; Byron, 2008) by highlighting how communication style affects conflict development through email communication.

This study makes several theoretical contributions. First, it extends current research on media selection theories by taking a focus on inter-organisational collaborations that experience conflict. That is, the research

findings have outlined the interrelations between conflict and media selection in an inter-organisational business context, and has shown conflict escalation in CMC selection. Second, it has taken a specific focus on CMC selection in coopetitive inter-organisational settings that has not previously been considered in the literature. Third, it introduces an inter-organisational type of conflict, namely business strategic conflict to signify the case of competitors becoming collaborators.

In addition, our study offers implications for practitioners. First, cases of business strategic conflict in any coopetitive inter-organisational arrangement need to be discussed and managed early on in the collaborative process in order to avoid for the conflict to be escalated as it happened in the case we studied which ultimately resulted in the termination of the collaboration. Second, our findings can be used to form guidelines for inter-organisational project teams that may communicate primarily through CMC. For this, it is important to attain an understanding of the most effective combination of communication media, so as to maximise performance in business collaboration. Third and as discussed earlier, although conflict is not necessarily exacerbated by the use of email, when there is high level of reliance on email, thereby supplanting other available communication media for disseminating complex information, conflict can escalate. In this regard, organisations that operate in a coopetitive environment may want to set up business protocols for regular FTF meetings in order to resolve problematic communication promptly. By so doing, they would be able to reduce instances of misunderstandings that were found in this case and which further escalating business strategic conflict. Finally, by taking a more proactive role with regards to the use of CMC, managers will be able to acquire a better understanding of the nature of CMC and thus be better able to deal with any potentially destructive developments with regards to their business and/or any inter-organisational collaboration.

While emphasis has been given in this paper on business strategic conflict, this may not be the only factor that influences CMC selection in an inter-organisational environment. For instance, cultural elements may be other factors that should be taken into account in the context of avoidance behaviour. In particular, avoidance behaviour is a common approach to managing disputes in East Asian cultures (Friedman et al., 2006), and future research should take this into consideration. Further research is also required in order to examine other patterns and types of conflict (e.g. task conflict and organisational process conflict) and also to involve additional inter-organisational collaborations to increase generalisability. Moreover, in this research, the use of foreign language (i.e. English in this case) appears to be another important factor in communication media selection that needs further study for gaining more grounded understandings.

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