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The connection between trust and information sharing in buyer-supplier relationships: A qualitative study of the retail sector

PhD dissertation

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Acknowledgements

Well, they don't *give* PhD degrees away - that's for sure. In some ways it seems like the start of my PhD was a long time ago, and in other ways, the journey has gone by in a flash. This might depend on whether I choose to think about the good times and the tough ones, with the former taking the lion's share of the experience. I can say that this has been the most challenging, but rewarding project that I have ever taken on. Aarhus as a city provided the perfect setting, and I have met so many great people along the way. This is for you.

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William Newell (but my friends call me Billy)

A handwritten signature in blue ink, appearing to read 'William Newell', with a stylized flourish at the end.

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Executive Summary

This thesis examines how information sharing and trust are connected within buyer-supplier interactions, and how these interactions can lead to changes in the overall buyer-supplier relationship. In buyer-supplier interactions, trust and information sharing play a crucial yet complex role. A buying firm's ability to compete depends on its ability to collect and act on valuable market and customer information, and suppliers are important senders and receivers of this information. Meanwhile, trust is one of the most critical success factors in developing buyer-supplier relationships, and encourages open information sharing between both parties throughout their daily interactions. Therefore, there is a vital connection between trust and information sharing among buyers and suppliers.

While the importance of these concepts and the link between them is recognized in the business-to-business and industrial marketing research streams, many questions remain as to how they are connected in more detail. Furthermore, trust and information sharing exist within complex business interactions alongside a number of factors, many of which also influence an interaction's outcome. This makes it particularly difficult in determining how exactly the individual interactions between buyers and suppliers can affect their overall relationship on a higher level. Although the above research streams have made significant progress in these areas, methodological and theoretical challenges remain prominent.

The research question for this thesis is: *“How are trust and information sharing connected in buyer-supplier interactions, and how do these interactions affect the buyer-supplier relationship?”* To answer this question, this thesis explores two case firms as the settings of inquiry – a mid-sized Danish DIY retailer (HomeCo), and a small Canadian high-end bicycle dealership (BikeSmart). The data for HomeCo are composed of seventeen semi-structured interviews with buying managers, along with the collection of internal company material. The data for BikeSmart include over two thousand emails between the buyer and its key suppliers, combined with company archival material, and a two-week field study at the dealership's location. Through these two settings, the thesis is composed of four studies, which consist of two qualitative single case studies, and two qualitative embedded case studies. Each study addresses different aspects of the research question, and provides its own theoretical and managerial contributions.

The first two studies consider the case of HomeCo. The first study closely examines the link between trust and strategic information sharing by breaking each concept down into its respective components. The study considers trust as an antecedent to information sharing, and generates propositions addressing this link. It concludes that strategic information will vary depending on what type of trust has been established – either goodwill or competence trust. If firms wish to encourage more open strategic information sharing, they must establish both forms of trust. The second study explores the extent to which information exchange can affect how and when supplier relationships are segmented through a pre-planned or emergent approach. This study features a model outlining when emergent and planned approaches take place, and connects these approaches to the type of information that a buyer acquires from suppliers.

The third and fourth studies examine the case of BikeSmart, and its interactions via email with its suppliers. The third study analyses the specific, short-term buyer-supplier interactions that are critical in the development of their relationships. It explores how the dimensions of social space and critical times affect the outcomes of these interactions. This study finds that the development of buyer-supplier relationships is multifaceted and complex, and outlines five different pathways in which the observed relationships developed in terms of these dimensions. The final study is the first to empirically focus on the concept of a trust breach (or violation), and how buyers and suppliers repair trust after a breach. It presents a series of propositions on the tactics that are employed to repair trust, along with the degree in which such tactics are successful in different contexts over time. This study informs managers on how they can successfully repair trust, which is important given that it is a crucial factor in buyer-supplier relationships.

In terms of a general contribution, this thesis uncovers new connections between trust and information sharing within buyer supplier interactions through more detailed examinations of the concepts. Specific buyer-supplier interactions are examined through new theoretical lenses, and further insight is provided into how they affect the development of the interfirm relationship. It also has a methodological contribution through the use of buyer-supplier emails, which is generally an underused but fruitful data source in the business-to-business and industrial marketing literature. The findings guide both buyers and suppliers in the management of their interfirm relationships, which remains an important aspect to their firms' success.

Resumé

Denne afhandling undersøger sammenhængen mellem informationsdeling og tillid i køber-sælger-relationer, og hvordan den gensidige påvirkning mellem informationsdeling og tillid kan føre til ændringer i det overordnede forhold mellem køber og sælger. I relationen mellem køber og sælger spiller tillid og information en særdeles vigtig og kompleks rolle. Købervirksomhedens konkurrenceevne afhænger af dens evne til at indsamle og agere på værdifuld information om markeder og kunder, og leverandører er vigtige kilder til og modtagere af denne information. Samtidig er tillid en af de vigtigste faktorer i udviklingen af køber-sælger-relationer, og tillid fremmer delingen af informationer mellem parterne. Med andre ord er der en central forbindelse mellem tillid og informationsdeling mellem køber og sælger.

Mens vigtigheden af disse elementer og forbindelsen mellem dem anerkendes i B2B markedsføringslitteraturen, er der stadig mange ubesvarede spørgsmål, hvad angår, sammenhængen. Endvidere opstår tillid og informationsdeling inden for rammerne af et kompliceret forretningsmiljø, hvori andre faktorer indgår, som også kan have indflydelse på udfaldet af samspillet mellem aktørerne. Det gør det ganske vanskeligt at bestemme, præcis hvordan den individuelle interaktion mellem køber og sælger påvirker deres overordnede relation. Selv om den ovennævnte forskning inden for B2B markedsføring er nået langt, er der stadig væsentlige metodiske og teoretiske udfordringer inden for disse områder.

Denne afhandlings forskningsspørgsmål er ”*Hvordan hænger tillid og informationsdeling sammen i samspillet mellem køber og sælger, og hvordan påvirker samspillet køber-sælger-relationen?*” For at besvare dette spørgsmål har afhandlingen to case-virksomheder som sit undersøgelsesfelt – en mellemstor dansk byggemarkedskæde (HomeCo) og en lille canadisk forhandler af cykler i den dyre ende af skalaen (BikeSmart). HomeCo-dataene består af 17 semistrukturerede interviews med indkøbschefer samt virksomheds-internt materiale. BikeSmart-dataene består af over 2000 e-mails mellem BikeSmart og dens vigtigste leverandører samt virksomhedens arkivmateriale og et to-ugers feltstudie hos forhandleren. Disse rammer danner baggrunden for afhandlingens fire studier, der består af to kvalitative single case-studier og to kvalitative indlejrede case-studier. Hver af undersøgelserne behandler et særligt aspekt af forskningsspørgsmålet og leder til bidrag indenfor ledelsesfeltet.

De to første undersøgelser omhandler HomeCo. Den første af dem ser nærmere på forholdet mellem tillid og strategisk informationsdeling ved at analysere hvert element for sig. Studiet ser på tillid som en forudsætning for informationsdeling og fremkommer med propositioner om denne forbindelse. Konklusionen er, at ledere deler strategisk information baseret på den type tillid, der er blevet oparbejdet – enten goodwill eller kompetencetillid. Hvis virksomheder ønsker at fremme mere åben informationsdeling, er det nødvendigt at oparbejde begge typer af tillid. Det andet studie undersøger, i hvilken grad forskellige typer af informationsudveksling kan påvirke, hvordan indkøbsledere segmenterer sine leverandørrelationer, hvilket kan være enten planlagt og struktureret på forkant eller tilpasset hen ad vejen som et resultat af påvirkninger udefra.

Tredje og fjerde studie omhandler BikeSmart og denne virksomheds e-mail korrespondance med virksomhedens leverandører. Det tredje studie analyserer specifikke kritiske køber-sælger episoder, som er vigtige for udviklingen af køber-sælger relationen. Det undersøges, hvordan det sociale rum og tidsaspektet påvirker udfaldet af interaktionen. Undersøgelsen viser, at udviklingen af køber-sælger-relationer er kompliceret og mangesidet, og den beskriver fem forskellige retninger, som de observerede relationer udvikler sig i i forhold til disse dimensioner. Det fjerde studie er det første, der empirisk undersøger tillidsbrud som koncept, og det analyseres hvordan købere og sælgere genopretter tilliden efter et tillidsbrud. Studiet præsenterer en serie af propositioner om, hvilke taktiske redskaber der anvendes for at genoprette tillid, og om i hvilket omfang disse redskaber skaber en positiv effekt i forskellige sammenhænge over tid. Dette studie giver anvisning på, hvordan ledere kan genoprette tillid, hvilket er vigtigt, givet at det er en kernefaktor i køber-sælger-relationer.

Hvad angår det overordnede bidrag, afdækker denne afhandling forbindelserne mellem tillid og informationsdeling i køber-sælger-relationer gennem en tilbundsående undersøgelse af denne sammenhæng. Særlige køber-sælgerinteraktioner undersøges ud fra nye teoretiske vinkler, og viden om, hvordan de påvirker udviklingen af relationer mellem virksomheder, fremlægges. Ved at analysere e-mails mellem køber og sælger yder afhandlingen også et metodemæssigt bidrag, da e-mails er en ikke fuldt udnyttet, men rig datakilde i B2B markedsføringslitteraturen. Resultaterne er vigtige både for købere og sælgere i styringen af deres relationer, som er et vigtigt aspekt i et firmas succes.

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1.0 | Introduction to the dissertation

This thesis examines the complex connection between information sharing and trust in buyer-supplier relationships, with the research settings occurring specifically between buyers and suppliers in the retail sector. Arguably, information is one of the most important flows between organisations (Vargo and Lusch, 2004). Some say it is even the “lifeblood” of business-to-business (B2B) exchange relationships (Tong and Crosno, 2015, pg. 167). Information plays a major part in the connection between buyers and sellers (Cannon and Perreault, 1999), and is a key component in the development of interactions - in particular for retailers and their suppliers (Ailawadi *et al.*, 2010). For many reasons, this is not surprising. Through developments like Efficient Customer Response systems during the early 2000s, suppliers aimed at collaborating with retailers through information sharing to experience cost reductions for the entire supply chain (Corsten and Kumar, 2005). During a similar period, information sharing manifested through allowing suppliers access to a retailer’s loyalty card data in order to create new economic gains, and reduced costs for both parties (Duffy *et al.*, 2013). With an increased availability of consumer data, RFID technology, and the emergence of suppliers going direct to consumers, information sharing has become ever-more prominent (Ailawadi *et al.*, 2010). However, the choices among firms on whether to share the information (and with whom) and resulting insight remains an issue (Kembro and Näslund, 2014; Tien, 2013).

While new ways of sharing information have developed, there remain some “timeless” elements to this buyer-seller activity. For one, firms can be reluctant to share information, as there are risks for the other party to either “leak” the information to an unwanted party, or even use information such as pricing data to squeeze the margins of the other party during negotiations (Dyer and Chu, 2003; Mohr and Sengupta, 2002). Similarly, retailers may not wish to share information with large suppliers who have also established a direct channel to the end consumer. In these cases, retailers do not share information in the hopes of maintaining that supplier’s dependence on the retail firm (Chung *et al.*, 2012). This is related to another underlying feature of information, being that the nature of sensitive information itself is constant, regardless of any new developments in which it is shared. Information within a firm can be quite private and strategic, which focuses on long-term corporate goals, internal management conflicts, underlying motives, succession plans or undocumented capabilities (Uzzi and Lancaster, 2003). In the retail sector, studies on information are primarily related to learning from, responding to, and predicting consumer and

market activities, all of which represent a degree of sensitivity of the information, and a question of whether it should be shared (Frazier *et al.*, 2009)

The reluctance to fully share information reflects a relational deficiency in the buyer-supplier relationship – a lack of trust. A lack of trust can be detrimental in collaborative buyer-supplier relationships. For instance, several leading researchers argue that recent developments in the retail sector have fostered increased channel conflict, which has reduced trust and information sharing between buyers and sellers (Ganesan *et al.*, 2009). Therefore, the presence of trust (along with its many components) is one of the central concepts in developing close and collaborative relationships (Blois, 2003; Morgan and Hunt, 1994). Trust is a “*firm’s belief that another party will perform actions that will result in positive outcomes for the firm, as well as not take unexpected actions that would result in negative outcomes for the firm*” (Anderson and Narus, 1990, pg. 45). Trust allows information to be shared more freely between actors, and the actors choosing to share information do so without considering the potential negative repercussions that may follow (Uzzi, 1997). Trust has received a large amount of attention in the buyer-seller literature, yet there has been some inconsistencies in how it is defined/measured (Blomqvist, 1997; Seppänen *et al.*, 2007). Furthermore, there have also been many questions as to how trust is developed in buyer-supplier relationships (Huang and Wilkinson, 2013).

While it is generally understood that more collaborative relationships “built” on trust are characterised by more frequent and in-depth information sharing (Dwyer *et al.*, 1987), the link between information sharing and trust is complex, and not straight-forward (Becerra *et al.*, 2008). Information sharing actions can either build or erode trust, and the overall level of trust also determines the level of information sharing (Day *et al.*, 2013; Mayer *et al.*, 1995). Trust can have diminishing returns, resulting in no extra information sharing after crossing a particular threshold (Ryu *et al.*, 2007). Trust is also context dependent, meaning that there is no “blanket trust” that applies to all competencies of a partner firm (Blois, 1999). This means that while a firm may trust their exchange partner not to actively share information with competitors, they may not trust them to have the ability to use the information to benefit both partners (as theory would suggest). From a theoretical standpoint, there is also a question of how trust manifests across organizational levels, and therefore different levels of analysis. Prominent studies have found that trust on the personal level (interpersonal trust) and trust on an organizational level (interorganizational trust) are distinct constructs, and have very different effects on exchange behaviours between firms (Zaheer *et al.*, 1998). Finally, firms and the actors within them can violate/breach trust, and therefore act against the mutual understanding of the trustor. It has been said that trust is a fragile plant, which may not endure an inspection of its roots, even if these roots were healthy prior to the inspection (Baier, 1986). Therefore, there is a question of how firms can repair trust after this violation has occurred

(Dirks *et al.*, 2009; Kim *et al.*, 2009; Tomlinson and Mayer, 2009). Repairing trust to restore the relationship, and re-encourage information sharing is also complex, and to achieve this one must take a number of different factors into consideration (Janowicz-Panjaitan and Krishnan, 2009).

To examine and analyse the complexities of the link between information sharing and trust, I turn to the concept of buyer-supplier interactions. While the goal of this study considers trust and information sharing in buyer-supplier interactions, interactions occur over a number of levels of analysis. These include specific, short-term dyadic interaction episodes, the long-term overall interfirm relationship, and the composition of the entire supplier portfolio through a number of interacting relationships (Holmlund, 2004). The buyer-supplier interaction is one that encompasses exchanges of information, finances, social benefits, or products and services (Håkansson and Waluszewski, 2013; Schurr *et al.*, 2008). It has arguably been the unit of focus for much of the Industrial Marketing and Purchasing (IMP) group, especially during the earlier years of the research stream (Håkansson, 1982; Håkansson and Snehota, 1989). This literature has made significant inroads in the understanding of buyer-supplier interactions, but much still remains to be understood. For example, existing interaction frameworks have not clearly delineated how communication elements impact the functioning of relationships (Celuch *et al.*, 2006). Many aspects of examining and theoretically reproducing interaction episodes, and how these affect the longer-term buyer-supplier relationship (on a higher level of analysis) remains overlooked (La Rocca *et al.*, 2017).

The problem with overlooking these specific, short-term, buyer-supplier interactions is that they can set the stage for the development of overall buyer-supplier relationships (Halinen *et al.*, 1999). Repeated buyer-supplier interactions can build, repair, or diminish trust, and also eventually encourage or discourage information sharing (Anderson and Narus, 1990). Interactions between actors of the buying and selling firms can be quite routine and non-eventful, but certain actions can lead to large changes in information sharing, levels of trust, and other exchange variables. These specific interactions have been labelled as “critical episodes” (Schurr, 2007; Strandvik and Holmlund, 2008), or episodes of higher criticality (Edvardsson, 2000). Critical episodes result from a number of different factors (Edvardsson *et al.*, 2014), but provide a fruitful unit of analysis when examining trust and information sharing. This holds true for several levels of analysis within the interactions. Episodes themselves can have their own characteristics and actions within them, but they also impact and are impacted by the overall interfirm relationship or the portfolio of relationships that is being managed (Wilke and Ritter, 2006). This makes analysing episodes and forming conclusions based on their outcomes challenging, but a worthwhile task.

1.1 - Motivation and research question

From an introduction of information sharing and trust within buyer-supplier interactions, several areas have been identified as requiring more understanding from a theoretical perspective. This is coupled with the importance of these concepts for managerial practice. Together, these areas form the motivation for researching this topic, and therefore the papers of this thesis address several of these areas.

First of all, previous studies in business-to-business relationships often focus on information sharing as a broad concept. However, the many dimensions of information affect how and why it may or may not be shared, and this is often overlooked in the literature, specifically with how it might affect the overall buyer-supplier relationship (Kembro and Näslund, 2014). Moreover, trust is generally accepted as a crucial component to information sharing, and there is room for more detailed examinations of its link as an antecedent to information sharing. The definitions of both trust and information sharing are often vague, and the complexities of trust appear to be implied (Frazier *et al.*, 2009; Johanson and Mattsson, 1987). Trust is multifaceted, with a wide range of outcomes, antecedents, and dimensions (Seppänen *et al.*, 2007). To link these two concepts and build on this theoretical and practical link, one must break down information sharing and trust into their smaller components, examining their link in a more fine-grained manner. This should be especially true for when trust is breached, or information is deliberately withheld.

Moreover, since trust and information sharing are central concepts for collaborative buyer-supplier relationships, arguably actors should make efforts to repair trust and share information more freely. Repairing trust requires a variety of tactics, which are often themselves communicated through the exchange of information (Day *et al.*, 2013; Kim *et al.*, 2009). The current literature has conceptually addressed the varying trust repair strategies that actors in firms may employ, but have not empirically verified their findings (Janowicz-Panjaitan and Krishnan, 2009). Therefore, this thesis will take a step in empirically examining the trust repair process.

The final two areas acting as the motivation for this thesis lie within the information sharing actions, and how these have repercussions towards the buyer-supplier relationship. This is done specifically through the consideration of buyer-supplier exchange episodes. Episodes involve information sharing, and can have positive, neutral, or negative effects on the relationship (Schurr, 2007). The dimensions of such episodes include the contextual time and space of the interaction, yet these dimensions have not been explicitly examined (Abrahamsen *et al.*, 2012; Halinen *et al.*, 2012). Uncovering the effect of these dimensions, and their effect on the relationships beneficial for research and practice (Schurr, 2007). This

would be especially helpful in determining how relationships develop in both constructive and destructive ways.

Finally, with information sharing being one of the primary flows between buyers and sellers, then it is likely that the acquisition of information can change the way an actor of a buying firm manages their portfolio of suppliers. Aside from a wide range of supplier management and segmentation tools (Day *et al.*, 2010), how exactly this occurs in practice is not well-understood. Information is the foundation of managing and segmenting suppliers, and the basis on which perceived trustworthiness is established. This link could be further explored, with an emphasis on which types of information and specific exchange episodes involving information exchange effect the configuration of the supplier portfolio.

The overall research question and objectives for this PhD thesis is therefore: *How are trust and information sharing connected in buyer-supplier interactions, and how do these interactions affect the buyer-supplier relationship?* To answer this question, the thesis examines two case firms as the research setting, which have resulted in four separate studies. Case study approaches are often advocated to explore different aspects of information sharing, and the complexities of trust (Blois, 1999; Kembro *et al.*, 2014). Moreover, the two case firms are in the retail sector, and therefore the findings of this thesis are highly relevant for this industry. The retail sector thrives on market and consumer-related strategic information, as retailers interact directly with the end consumer, and must respond to the needs of a dynamic, consumer-driven market. Retailers derive insights from this information that can underscore their entire marketing approach (Dawar and Stornelli, 2013). The importance of the information flow in guiding the decisions of retailers is critical and growing (Ailawadi *et al.*, 2010), which makes it an appropriately suitable sector to address the research question.

1.2 – Structure of the thesis

This thesis is structured into five broad sections, plus three appendices. The current introduction section will continue by outlining the contributions of the individual studies (see table 1). The second section will discuss the theoretical background of the four studies. It reviews the theory behind buyer-supplier interactions, and further reviews trust and information sharing within these interactions. The goal of this section is to also position the four papers at the intersection of the broad interorganizational management literature, the B2B marketing literature, and the IMP school. Section three discusses the research approach and methods of the studies, and section four presents all four studies in their entirety. Section five reviews the overall contributions of the thesis, while also addressing several limitations, and areas for future research. Lastly, the appendices contain organized tables reviewing the relevant literature, the interview guide for studies 1 and 2, and the co-authorship statements for the required studies.

Table 1 provides an overview of the main research aims and contributions of the four individual studies in this thesis, presented in section 4. The goal of each study was to address a specific issue between the link of trust and information sharing, and to uncover some of the aspects of the buyer-seller interaction which also involves these concepts either in the periphery or as a primary theoretical foundation. Studies 1 and 2 take place in the research setting of HomeCo, while Studies 3 and 4 draw from data collected from BikeSmart. Study 4 has referred to its case firm as “CycleSmart,” however this is simply a different name for the BikeSmart firm.

Table 1: Aims and contributions of individual studies			
Study Number	Research setting	Research design	Aims and contributions
Study 1	HomeCo – Danish DIY retailer	Single case study	Further “unpacks” the theoretical link between trust and strategic information sharing by examining these concepts through their different components. <ul style="list-style-type: none"> - Shows which type of trust leads to different levels of information sharing - Suggests that trust has its limits, and that no level of trust will lead to completely open information sharing - Finds that the specific category of information shared and level of trust is also dependent on the individual buying manager involved
Study 2		Single case study	Explores the views of planned supplier relationship management (particularly segmentation) from the planned view versus the emergent view, with the consideration of information acquisition. <ul style="list-style-type: none"> - Associates public information with more planned actions and private information with emergent actions - Highlights which actions are emergent and which actions are planned when buyers segment their supplier base
Study 3	BikeSmart – Canadian bicycle retailer	Embedded case study	Examines the dimensions of social space and critical time of buyer-supplier exchange episodes, and how these dimensions might influence an episode’s criticality. <ul style="list-style-type: none"> - Proposes five patterns on how the buyer-supplier relationship develops over time with respect to the above dimensions
Study 4		Embedded case study	First paper to explore the bilateral trust repair process through the use of empirical data. <ul style="list-style-type: none"> - Presents findings relating the trust repair tactic of the trustee and responses of the trustor. - Shows the effectiveness of trust repair tactics over time and in different contexts

In study 1, we examine information sharing and trust in more detail by breaking both concepts down into their different types. Trust is examined on the basis of competence and goodwill trust (Sako, 1992), and on how it acts as an antecedent to a buying manager's choice to share strategic information (Frazier *et al.*, 2009; Samaddar *et al.*, 2006). By separating information sharing and trust into its different types, we were able to contribute to the literature by showing which type of trust leads to information sharing, and uncover some additional factors that affect the trust and information sharing link. This is presented through several testable propositions. We find that while competence trust may be enough to encourage strategic information sharing, establishing goodwill trust will help further ensure sharing takes place. Furthermore, we show when and why information sharing may be deliberately withheld in terms of the type of trust involved.

Study 2 generally addresses the second part of the research question by examining how information sharing affects the buyer-supplier relationship. Specifically, we adopt the definition of private versus public information as defined by Uzzi and Lancaster (2003) to discuss when and how acquiring this information leads to an emergent or a planned segmentation approach of their suppliers. Segmentation involves organizing and classifying suppliers through specific attributes or bases to match with current market conditions (Day *et al.*, 2013). Generally, the literature argues that the segmentation of the supplier base is a prescriptive, and pre-planned approach, while a growing body of literature suggests that this process is more emergent (Dubois and Pedersen, 2002). We find a different result, which is that buyers generally adopt a planned supplier segmentation approach early in the process, and must form an emergent approach as they implement their segmentation plan during their interactions with suppliers. Moreover, this study adds to the literature by associating an emergent segmentation approach with private information, whereas the current literature typically focuses primarily on public information.

Study 3 focuses on changes and continuity of the buyer-supplier relationship by examining critical, short-term interaction episodes. I examine how the dimensions of social space and time affect the outcome (which I term as criticality) of these episodes (Abrahamsen *et al.*, 2012). Social space is examined through the buyer's perception of the role in different contexts, and time is considered as critical time (see Edvardsson and Strandvik (2009)). A buyer's perception of their own role affects the criticality of an episode, while the critical time enhances the episode's criticality. It also shows how the patterns of interaction between these dimensions lead to changes and the continuation of five different buyer-supplier relationships.

Lastly, study 4 is one of the first (to our knowledge) to empirically examine the bilateral trust repair process. This process involves a trustee who has violated the trust of the trustor, and must take action to

repair that trust. The series of repair tactics and responses can be considered as a special form of buyer-supplier interactions affecting the status of the relationship. We build directly upon previous studies that have delineated this process theoretically (Janowicz-Panjaitan and Krishnan, 2009; Kim *et al.*, 2009; Tomlinson and Mayer, 2009). Previous studies suggest which tactics are used to repair violations of trust. Through the development of testable propositions, we add to these models by showing the effectiveness of repair tactics over time, in different contexts, and for different types of trust breaches. The study finds that suppliers have more possibilities to blame trust breaches on third parties, and that severe breaches lead to the use of many simultaneous trust repair tactics, and to a long-lasting negative effect in the buyer-supplier relationship. Interestingly, we also find that repeatedly making excuses for a violation of trust can either erode the credibility of the trustee, or establish a new expectation level of the trustor. The outcome in this case depends on the resistance of the trustor to the trustee's repair tactics.

2.0 | Theoretical background

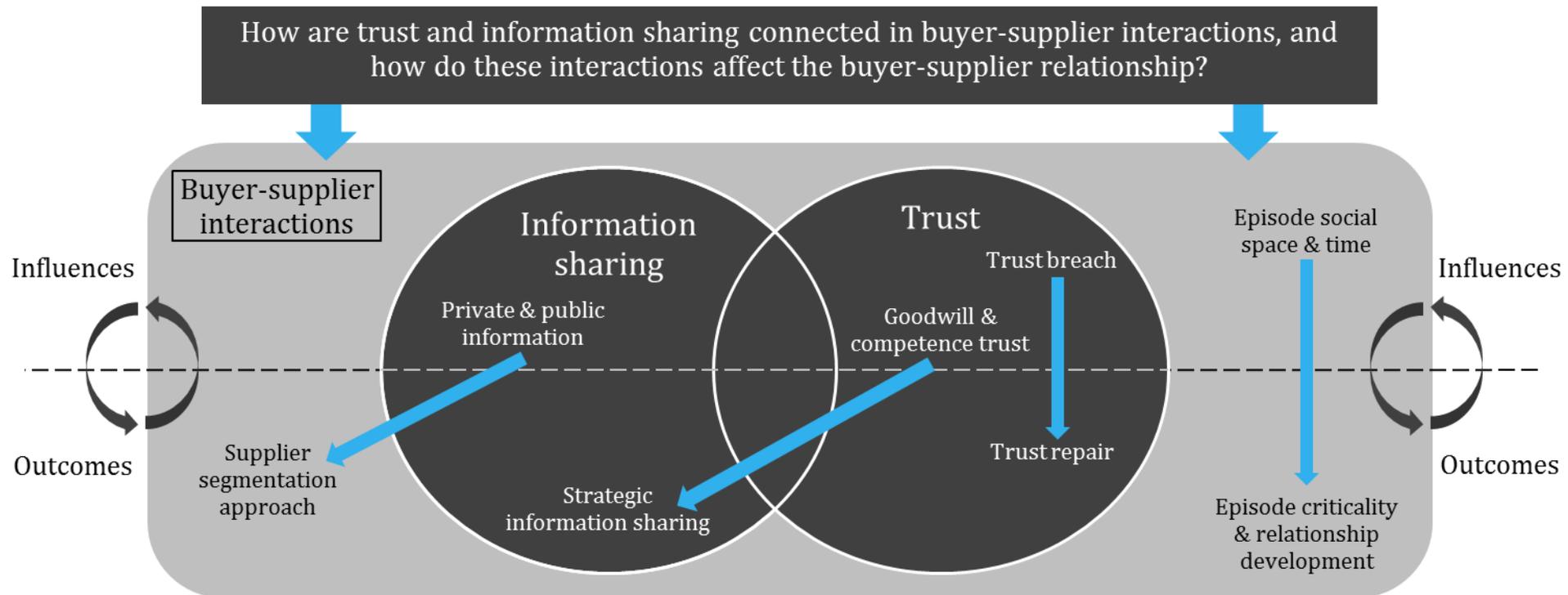
As suggested by the title of the thesis, there are three main concepts to unpack in its positioning, as well as an examination of the theoretical link between them. The studies within this thesis rest on the concepts of information sharing and trust, occurring within the complex interactions of buyers and suppliers. These concepts represent the intersection of several fields where this thesis is positioned. Trust and information sharing occur and are developed through interactions between actors in the buying and selling firms. Information sharing and trust are broad concepts, and have been examined extensively within the general management field focusing on inter-organizational relationships, including research on intraorganizational trust such as between managers and employees (Blois, 1999; Dyer and Chu, 2003; Mayer *et al.*, 1995; Rousseau *et al.*, 1998; Wu, 2008). The same holds true for the concept of trust repair as the primary focus for study 4 of this thesis.

The buyer-supplier relationship is unique, and contains a number of particularities that require an understanding of the business-to-business marketing research field that have specific foci on the nuances of this context, along with a focus on trust and information sharing. This business-to-business marketing field therefore acts as the second stream used to position the thesis. Thirdly, interfirm interactions are explored through a number of different literature streams, yet studying the concepts from the Industrial Marketing and Purchasing (IMP) stream offers some important insight into how interaction can be conceptualised, and analysed. This research stream has made significant progress, yet it also has many promising areas for future research. Therefore, as a whole, the papers in this thesis lie at the intersection of the general interorganizational management literature, the business-to-business marketing literature, and the IMP research stream.

Figure 1 presents the structure of the review of the literature, and graphically summarises the theoretical positioning of the four featured manuscripts. While not an exhaustive review, some of the more important studies reviewed, and used to identify the research gaps for this thesis, and position it in the literature, are presented in tables in Appendix A. This review is not meant to be exhaustive, but as a means for inspiration in the positioning of the thesis. The review has been organized into three subsections: conceptualizing and analysing buyer-supplier relationships, buyer-supplier information sharing, and trust and information sharing in both the general interorganizational and buyer-supplier settings in the retail sector. Articles within each subsection were not chosen systematically. They are simply presented here as publications which have guided the research, and helped identify the proposed research gaps.

Although there are some overlaps between information and knowledge, I do not specifically contribute to the interorganizational knowledge sharing literature. I have considered some papers that place themselves specifically within this field, yet these studies are mostly to illustrate the complexity between trust and information sharing, and discover additional factors that might affect the link between them (Becerra *et al.*, 2008; Easterby-Smith *et al.*, 2008; Perrone *et al.*, 2003; Zaheer *et al.*, 1998). This is due to the nature of the type of information examined in each paper. The knowledge sharing literature generally considers the difficulty in transferring tacit knowledge within and across organizational boundaries (Nonaka, 1991). However, information is more closely related to explicit knowledge, being easily codified, transferred, and potentially valuable by simply possessing it (Boisot and Canals, 2004). In turn, information sharing focuses on data regarding end-consumer demand levels, and market structures, while knowledge sharing involves a much higher level of integration between firms involving the exchange of tacit knowledge and the development of mutual understandings (Cheung *et al.*, 2011; Myers and Cheung, 2008).

Figure 1: Summary of thesis concepts and connections



2.1 - Conceptualizing & managing buyer-supplier interactions

Before beginning to understand the link between trust and information sharing in a buyer-supplier setting, we must take a step back and consider the theory behind how interfirm interactions are analysed and conceptualised (see Appendix A – table A). This can also shed some light on how trust and information sharing are related not just across constructs (as in Figure 1), but across levels of analysis in interfirm interactions. This is not a simple task, and arguably the terms “interaction” and “relationship” are not completely well-defined in the literature (Blois, 2003). Examining interactions poses many challenges for researchers (Abrahamsen, 2016), and certain literature streams have progressed to address these challenges. For example, the IMP school developed an early interaction model to highlight several important factors of the buyer-supplier interaction: the specific interaction process, the parties involved, the environment where the interaction takes place, and the atmosphere affecting and affected by the interaction (Håkansson, 1982). The Actors-Resource-Activity (ARA) model was developed within the same stream to examine interactions in relationships which bind firms together: actor bonds, resource ties, and activity links (Håkansson and Shenota, 1995). A common assumption among this school’s approach is that the interaction has a holistic relational and atmospheric substance. This means that an interaction has not only direct cost and revenue effects for firms, but affects their overall activities and resources during and after the interaction (Håkansson and Waluszewski, 2013). Both parties are mutually affected by the interaction process (Abrahamsen, 2016).

Observing the state of the interfirm relationship as the result or “dependent variable” is also common across these analytical frameworks (Holmlund, 2004). Levels of analysis within buying and supplying firms can range from the macro, network level, down to the micro-level of a particular individual’s actions, but generally the overall aim of examining the buyer-supplier interaction is to capture both the content and the effect of the interaction on each organization (Håkansson, 1982; Håkansson and Waluszewski, 2013). The substance of the interaction can be analysed across several levels of the interfirm interaction. The thesis crosses several levels of the buyer-supplier interaction, with a focus on the interpersonal level. It analyses the involved actors’ individual actions, interaction episodes, and considers these levels within the context of an entire organization and group of organizations.

2.1.1 – Interaction episodes

Episodes are of significant importance for this thesis, as they form the basis of analysis for the studies involved. The buyer-supplier episode is a central component of the interaction process, and is concerned with exchanging products, services, information, financial instruments, or socially valued experiences (Håkansson, 1982; Schurr *et al.*, 2008). Analysing episodes helps uncover the substance and effects of the interaction. It is the reconstruction and interpretation of these episodes that have led to each paper’s

respective findings. This was motivated by the fact that many of the mechanisms occurring within interaction episodes remain overlooked, despite notable progress from the IMP research stream (La Rocca *et al.*, 2017). In parallel with the concept of interaction, the notion of an episode causes some confusion, especially when considered alongside ideas such as “events” or “actions”. While the literature has not completely reconciled the differences and similarities between these concepts, I will outline how I have interpreted and used this idea.

In the simplest form, actions make up episodes, and episodes and events are very closely related concepts, with their primary difference lying in their epistemological assumptions. Holmlund (2004) argued that the basic level of analysis is the actions of one individual. In contrast, an event describes human actions, nonhuman actions, or both over time and in given place (Hedaa and Törnroos, 2008). Actions are the building blocks of events, and an event is a description of what happened, with a beginning and an end (Makkonen *et al.*, 2012). Episodes are very similar, with some researchers defining them as; “*a series of related events through which structural change unfolds* (pg. 945).” – thus claiming that episodes consist of events. Episodes have also been described as a distinct group of actions and reactions from actors across firms that occur in relatively short period of time, and have a clear, nameable subject (Biggemann and Buttle, 2009).

The differentiating factor of an episode is that it focuses on how actors experience human and nonhuman actions, and how the interpretation of this experience is transmitted into an episode through their own actions and communication (Olkkonen *et al.*, 2000). From this perspective, one also realises that different actors involved in an episode will perceive it differently, and one must account for these differences. Moreover, actors have different levels of tolerance as to what constitutes a favourable or unfavourable outcome (Schurr *et al.*, 2008). Finally, limited memories and expectations of the actors involved also limit the effects of older episodes, yet can place more importance on the most recent ones (Biggemann and Buttle, 2007). As shown in Figure 2, I have adopted the definition of an episode as a series of actions pertaining to the exchange of products, services, information, financial instruments, or socially valued experiences that form a bounded, nameable unit as interpreted and communicated by the actors involved (Biggemann and Buttle, 2009, pg. 551; Håkansson, 1982).

A challenge in working with episodes lies in understanding its contextual elements. Deciding on which elements of an episode to focus on ultimately requires one to simplify reality, as an episode resides within the complex and dynamic business relationship (Holmlund, 2004). Although episodes contain their own distinct actions and reactions, they should be considered within both a temporal and situational context. Study 2 of this thesis explains this in further detail. While focusing more exclusively on relationships on a

network level, Håkansson and Ford (2002) suggest that the way an actor will respond and behave in a particular interaction depends on prior acts within previous interactions, knowledge gained in other relationship dyads, current episodes that occupy an actor (within and outside a focal dyad), expectations regarding future episodes, and episodes occurring in the extended network.

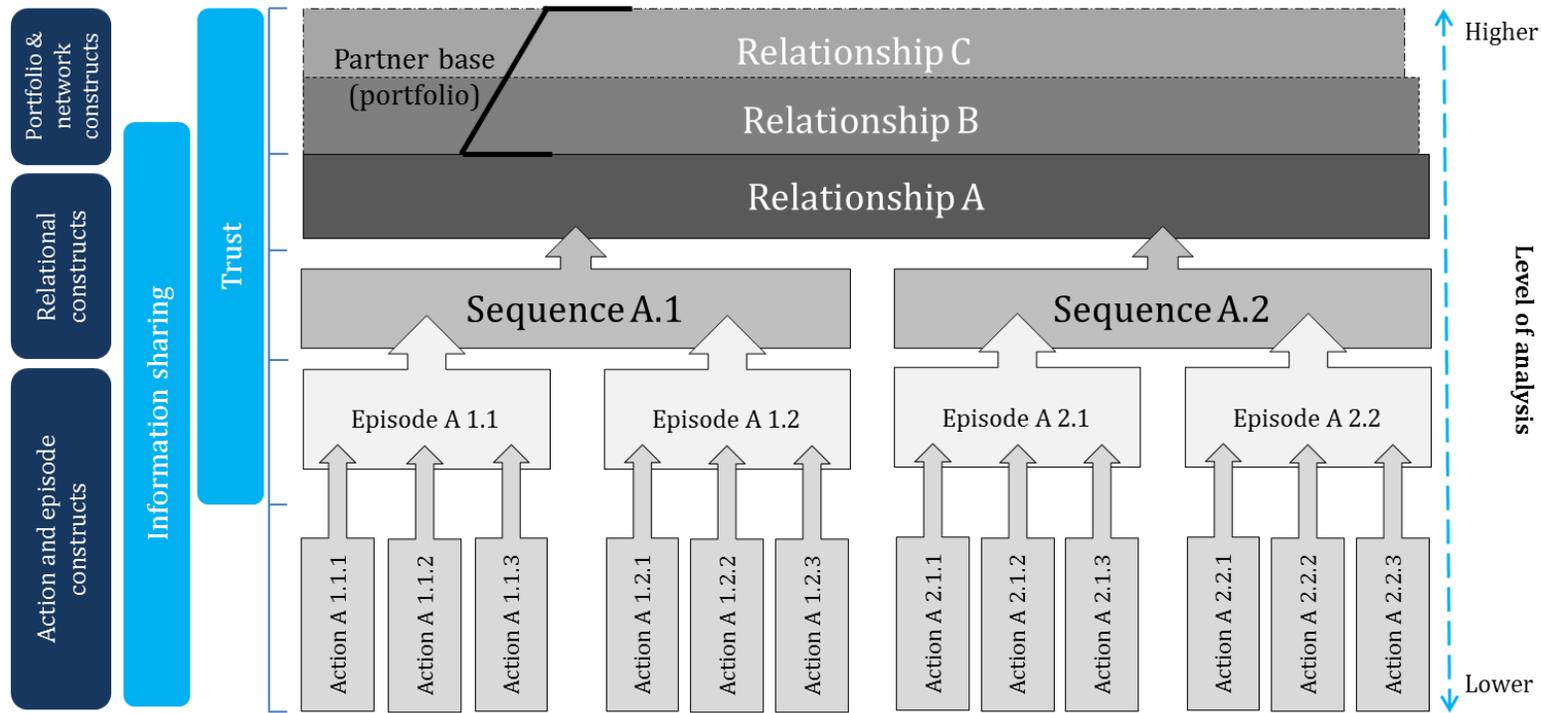
In terms of the situational context, episodes can be impacted by an actor's perception of their role in the interfirm relationship (Abrahamsen *et al.*, 2012), the atmosphere of the relationship (Gadde and Håkansson, 2001), or the purpose of the episode (Sarmiento *et al.*, 2015). Current and future episodes are also impacted by the previous episodes that have taken place (Håkansson and Waluszewski, 2013; Schurr *et al.*, 2008). Therefore, the timing and time horizon of an episode should also be considered (Schurr *et al.*, 2008). For instance, at times of relational stress, the tensions, interpretations, and actions of the actors involved are significantly different than under the "normal" course of business (Holmlund-Rytkönen and Strandvik, 2005). As Halinen *et al.*, (2012) stated, "*the different human times, both event time and clock time, define how the process evolves and becomes punctuated in the minds of business managers and consequently in researchers' reproductions of the process*" (pg. 218).

Episodes are important because they are the essential drivers of relational change (Schurr, 2007; Schurr *et al.*, 2008). The outcome of an episode is its degree of criticality, which is the degree to which it triggers behavioural or perceptual attention from one of the actors involved (Edvardsson, 2000). Episodes that change the nature or state of the overall relationship have been referred to as either "high criticality" or simply "critical" episodes (Edvardsson, 2000; Schurr *et al.*, 2008). The study and concept of critical episodes is derived from the critical incident technique, which was initially used to study failures in aviation (Flanagan, 1954). Since the development of this technique, it has been used to reconstruct episodes of interfirm interactions, and point to which episodes in particular proved as a turning point in either a positive or negative direction (Edvardsson and Roos, 1992). Critical episodes can also set the stage for change in a relationship, and cause slight, cumulative disturbances that might have considerable repercussions on the interfirm relationship (Edvardsson *et al.*, 2014; Halinen *et al.*, 1999). Critical episodes can be positive or negative in nature, representing either constructive or destructive effects on relationships (Schurr, 2007).

Studies employing the critical incident technique in this fashion include Edvardsson *et al.*, (2014), Edvardsson and Roos (1992), Holmlund-Rytkönen and Strandvik (2005), and Schurr (2007). Such studies generally focus on critical episodes or times that are especially turbulent, or lead to relationship dissolution (Good and Evans, 2002; Schurr *et al.*, 2008). However, Schurr *et al.*, (2008) highlighted that researchers have generally omitted episodes of lower criticality, and therefore called for an expanded

view of criticality, which encompasses episodes that have any effect on changing or maintaining the actor bonds, activity links or resource ties of the actors and firms involved. Therefore, I have attempted to examine episodes that are of higher criticality – focusing on changing behaviours or perceptions of actors involved in the context of the episodes of lower criticality (see Figure 2). Some of the papers do not explicitly state that such episodes are examined, but this is done nonetheless. For example, in study 4 focusing on trust breach and repair, while we do not state that the process is an episode, the action of a trust breach and subsequent actions of repair is a particular type of episode. The techniques I have employed for examining episodes in the research manuscripts will be summarised in the review of the research methods employed throughout the papers.

Figure 2: Levels of interfirm interaction analysis, theory, and key terms



Adopted from Holmlund (2004; pg. 281) and Schurr *et al.*, (2008)

Construct	Definition
Portfolio	The consideration of an entire set of supplier relationships at a particular point in time, emphasising an integrated approach to the management of the company’s various business relationships and units (Day <i>et al.</i> , 2010; Turnbull, 1990).
Relationship	The result and content of all episodes (and therefore all actions) between a buyer and seller in the establishment of relational constructs such as embodied roles, trust, and commitment (Dwyer <i>et al.</i> , 1987; Holmlund, 2004).
Episode	A series of actions pertaining to the exchange of products, services, information, financial instruments, or socially valued experiences that form a bounded, nameable unit as interpreted and communicated by the actors involved (Biggemann and Buttle, 2009; Håkansson, 1982).
Episode Criticality	The outcome of an episode, with higher criticality, with an episode of high criticality triggering behavioural attention, perceptual attention, or both of an involved actor (Edvardsson, 2000; Schurr <i>et al.</i> , 2008).

2.1.2 – Buyer-supplier relationships

Relationships can be analysed by grouping together sequences of episodes. In other words, when added together, episodes can raise the level of analysis to the relationship-level. Groups of episodes can set the general relational climate, and when considered as a whole, are what is generally accepted as the overarching interfirm relationship (Holmlund, 2004). This is somewhat aligned with the classic views of interfirm relationships, as a series or sequence of connected interactions known as episodes (Håkansson, 1982). While relationships are still socially constructed concepts, they exist on a higher conceptual level of analysis than episodes (Biggemann and Buttle, 2009; Holmlund, 2004). Episodes represent short term interactions, while relationships are more generalized and long-term in nature (Johanson and Mattsson, 1987).

The literature is ripe with explanations for why firms enter into relationships based on a broad variety of theoretical perspectives (Barringer and Harrison, 2000). Generally, I have focused on the “social exchange” aspect of interfirm relationship development (Cropanzano and Mitchell, 2005; Lambe *et al.*, 2001). This view would suggest that relationships refer to the ongoing establishment of roles, adaptation of processes, and the simultaneous evaluation of the outcomes (Holmlund, 2004). A firm’s exchange interactions result in economic and/or social outcomes, which are compared over time to other exchange alternatives to determine one’s dependence on a particular relationship (Lambe *et al.*, 2001). Relationships are the result of long-term processes that take time to develop through repeated interactions with the other party (Dwyer *et al.*, 1987; Larson, 1992). Over time, relational variables that develop include dependence, commitment, and trust, to name a few (Morgan and Hunt, 1994). Moreover, the continuous interactions of organizations with one another in a specific context endows the organization with meaning and roles (Håkansson and Snehota, 1989). Relationships are socially constructed, and the state and meaning of a relationship exists in the minds and the perceptions of the actors involved (Blois, 2003; Schurr *et al.*, 2008).

2.1.3 – The portfolio level of analysis

The consideration of a number of relationships gives rise to analysis of an overall network, which can be in the form of a portfolio of relationships (Wilke and Ritter, 2006). Figure 2 shows that more than one relationship can be considered at a time, which gives rise to portfolio and network constructs. In study 3, we examine how information sharing affects a buyer’s supplier segmentation view and actions in their supplier portfolios. The portfolio-level of analysis consists of the entire group of relationships (suppliers) of a buyer at a particular point in time (Holmlund, 2004). Segmenting a supplier portfolio relies on managing various sorts of risk inherent in interacting with suppliers by categorising them through various

selected characteristics or bases of interest (Day *et al.*, 2010). It considers the relative relationships and characteristics of suppliers, and not just the evaluation of these characteristics from a dyadic perspective.

However, just as Figure 2 suggests, it is the individual buying managers who must decide on how they view their portfolio (Dyer *et al.*, 1998; Nollet *et al.*, 2005). Figure 2 outlines that the network or portfolio level includes some constructs specific to this level, yet the network level of analysis can be analysed using the constructs of both trust and information sharing (Chang *et al.*, 2012; Lamming *et al.*, 2000). Portfolio approaches also consider overall constructs such as firm or market attractiveness (Fiocca, 1982), product specifications (Nellore and Soderquist, 2000), and the degree of specificity of investments in a relationship relative to other relationships (Bensaou, 1999). However, it is the individual episodes both with a supplier and from individuals in supplying firms that can guide the activities and methods in which segmentation takes place (Andersen *et al.*, 2016), and in study 3 episodes involving information sharing are used as the unit of analysis to determine how such episodes affect portfolio-levels constructs.

2.1.4 – Trust and information sharing among levels of analysis

Trust and information sharing occur across several units of analysis, as indicated in Figure 2. Therefore, they are considered across several levels of analysis, and specifically where they can overlap in the levels of episodes and relationships. Information sharing can occur as an individual action of a retail buyer, either during a negotiation (Frazier and Summers, 1984; Herbst *et al.*, 2011), or has even been considered as a higher level construct or characteristic of an entire relationship (Cannon and Perreault, 1999; Lamming *et al.*, 2005). Similarly, trust has been considered as a “meso-level” integrating individual psychological concepts with group dynamics, and even institutional arrangements (Rousseau *et al.*, 1998). Trust can be slowly built or destroyed by the specific actions of a firm’s representative (Dirks *et al.*, 2009; Sarmiento *et al.*, 2015), which can in turn affect the perceived trust on an organizational level (Zaheer *et al.*, 1998), or even to the level of an entire network (Uzzi, 1997). However, how this occurs across levels is a considerable challenge for researchers, and is a fruitful area for further examination (Wilke and Ritter, 2006).

2.2 - Buyer-supplier information sharing

Modern retail supply chains have developed numerous methods for gathering and disseminating data and information. Retailers have built entire strategies around understanding the needs of their customers, and sharing the remaining insight with their partner suppliers (Dawar and Stornelli, 2013). Retailers have collected data through their customer loyalty cards, and through the data generated by the use of RFID technology to share with suppliers (Boeck and Wamba, 2008).

While new methods are constantly developing and evolving, a common thread among them is the concept of information sharing, or information exchange. Information sharing is one of the foundational activities and crucial exchanges between buyers and sellers (Cannon and Perreault, 1999; Vargo and Lusch, 2004). Information is one of the key flows representing effective supply chain collaboration (Kembro and Näslund, 2014). A firm's ability to compete in the modern business environment depends on its ability to gain information on market characteristics, competitor actions, and consumer preferences (Frazier, *et al.*, 2009; Thomas *et al.*, 2011). It is highly related to partner satisfaction in supply chain partnerships (Whipple *et al.*, 2002), and is one of the primary resources exchanged between firms (Håkansson, 1982).

Information sharing has been thoroughly addressed in the fields of business and industrial marketing, and supply chain management (see Appendix A – table B). Reviews of the literature in the business and industrial marketing field are generally concerned with the effects of information sharing on the performance of the interfirm relationship (Tong and Crosno, 2015). Buyer-supplier information sharing has also been addressed in the field of supply chain management, with literature reviews showing that the primary foci are on the means in which information is shared, the barriers and enablers to sharing information, and the reasons why or why information should not be shared (Kembro and Näslund, 2014; Kembro *et al.*, 2014). Both of these fields highlight the need to further understand these issues.

Information sharing is a multidimensional concept. While many definitions have been brought forth, information sharing can generally be pictured as “*the mutual sharing of business and market information between exchange partners*” (Wu, 2008; pg.123). It involves the exchange of consumer demand information, market structures, and other important data (Myers and Cheung, 2008). The nature of information and how it is shared has been considered from a range of different angles. Successful information sharing can be dependent on the type of information itself, and in terms of how and to what degree it is shared between buyers and suppliers. The result is a wide range of dimensions in which information sharing is connected to the literature. A summary of many of these dimensions can be found in Table 2.

Table 2: Summary of information sharing reviews and their central information sharing dimensions	
Authors	Dimensions
Lamming <i>et al.</i> , (2001)	<i>Transparency</i> : Buyer-supplier information is understood as opaque, translucent or transparent, representing no sharing of information, partial information being shared through “black box” coordination, or most information shared through collaborative activities, respectively.
Biggemann (2012)	<i>Mutual disclosure and multi-contact</i> : The willingness of both parties to share meaningful information and the establishment of multiple points of contact to facilitate fluid and intense information sharing.
Samaddar <i>et al.</i> , (2006)	<i>Strategic importance and the volume of information</i> in order to match the conditions of the channel partnership.
Hsu <i>et al.</i> , (2008)	<i>Level of strategic importance</i> , with tactical being of less importance, and strategic being of higher importance.
Uzzi and Lancaster, (2003)	<i>Accessibility</i> : public information is reported through standard instruments, and available and verifiable through third parties. Private information is “soft” information, referring to nonstandard information of the firm such as corporate strategy, underlying motives, or management conflicts.
Frazier <i>et al.</i> , (2009)	<i>Internal and external strategic information</i> : whether the information lies inside or outside of the boundaries of the sharing firm.
Wang <i>et al.</i> , (2014)	<i>Extent of information sharing and the quality of information sharing</i> : Extent is concerned with the frequency and scope of information sharing, while quality refers to the accuracy, timeliness, adequacy and credibility of the information shared.
(Baraldi, 2008)	<i>Mechanisms</i> : Routine versus ad-hoc or project-based information sharing

From a supply chain management perspective, information sharing “refers to the extent to which crucial and/or proprietary information are available to members of the supply chain. Shared information can be tactical (e.g. purchasing, operations scheduling, logistics) or strategic (e.g. long-term corporate objectives, marketing and customer information)” (Hsu, *et al.*, 2008; pg. 298). Information that is more strategic is of higher value, and more sensitive in nature, and has a wider scope than tactical information (Cheung, *et al.*, 2011). As the complexity and scope of information increases, so does its potential for making more strategic and meaningful decisions (Finne and Sivonen, 2009). Studies making this distinction, such as study 1 in this thesis, are primarily concerned with different levels of information in terms of its value and its sensitivity (Klein and Rai, 2009).

Information is also defined by considerations of the quantity being shared. Information of a more sensitive nature may not be shared in high quantities due to the fear that it might be leaked to competing suppliers, retailers, or even used to the detriment of the sharing party (Dyer and Chu, 2003; Mesquita *et al.*, 2008; Mohr and Sengupta, 2002). The degree to which information sharing occurs has been referred to as the degree of transparency or, conversely, the degree of asymmetry of information between parties resulting from a lack of sharing (Lamming *et al.*, 2004; Tong and Crosno, 2015). Transparency is a characteristic of

a relationship, where information is shared on a selective and justified basis. The development of information sharing leads to shared knowledge and collaborative abilities (Lamming, *et al.*, 2001). Transparency represents the mutual disclosure of information across many contact points between firms. This is in agreement with Biggemann's (2012) information sharing construct, considering mutual disclosure, and multi-contact. It reflects the parties' willingness to share meaningful information, and the establishment of several points of contact to ensure information sharing takes place across multiple areas of the interfirm boundary. The degree of accessibility of information was also stressed by Uzzi and Lancaster (2003), who characterised information as either public or private. Public information is available to all actors, and is verifiable by third parties. Private information involves "soft" information on the inner workings of a firm such as any management conflict of future corporate goals.

Finally, information sharing can be considered based on how it is shared, and in defining the points of contact that facilitate or inhibit the information sharing. Information sharing can be completed in a manual sense, or automatically through the development of information technologies (Corsten and Kumar, 2005; Dawar and Stornelli, 2013). Information sharing can take place through one contact between firms, or between a large number of actors, making the process highly complex (Biggemann, 2012). Moreover, information sharing may not always occur between firms, but be limited to specific, ad-hoc projects. Alternatively, it can be a daily routine whereby the sharing is fluid and constant (Baraldi, 2008; Perna and Baraldi, 2014).

2.2.1 - Factors influencing information sharing in buyer-supplier relationships

The dimensions of information and the existence of information asymmetries between buyers and suppliers point towards the complexity of information sharing in buyer-supplier relationships. Information sharing is a difficult process, partially due to the differences in goals of the parties involved (Hsu *et al.*, 2008), and thus the complicated relationships that exist between industrial buyers and suppliers (Dwyer *et al.*, 1987). In some cases, buyers do not even know the value of their information, and neglect to share it effectively (Stone and Condron, 2002). However, with the continued interaction and iterative development of the buyer-supplier relationship, information sharing can help supply chain partners develop mutual understandings and align expectations of the exchange (Lusch and Brown, 1996). Information is an explicit form of knowledge (Cheung *et al.*, 2011), and reviews of interfirm knowledge sharing outline that the relational factors influencing knowledge sharing include power relations, social ties, structures and sharing mechanisms, and trust and risk (Easterby-Smith *et al.*, 2008). It is generally agreed that a higher frequency of contact and exchange of information improves relationships between retailers and suppliers, and helps in keeping suppliers' products listed on the shelves of large retailers (Davies, 1994).

In terms of power relations, studies in the retail field, the focus is often on the increase in size and purchasing power of retailers, and how this affects supplier relationships – including information sharing (Hofer *et al.*, 2012). Some studies show that in cases where large retailers share efficient customer response information with smaller suppliers, the smaller suppliers, while not getting the same share of financial benefits, will still partner with the retailer to learn from them (Corsten and Kumar, 2005). The larger and more powerful firm is more likely to share information since they are less prone to suffer negative effects from the leaking of such information (Mohtadi and Kinsey, 2005). Similarly, Frazier *et al.* (2009), found that retail buyers are more likely to share strategic information when dependence asymmetry is in the favor of the distributor, and when specific investments have been made by both distributor and supplier.

When it comes to social ties, the consensus is that information sharing is more fine-grained, open and more likely to lead to effective problem solving when closely embedded social ties exist between buyers and suppliers (Uzzi, 1997). At times, the social aspect of the exchange is what is most important. For example, when retailers attempt to engage suppliers regarding their consumer information, suppliers are more likely to engage in information sharing if they feel they are being treated fairly in the sharing process with the retailer (Duffy *et al.*, 2013). Finally, the structures and mechanisms of the information exchange also influence sharing, which includes the structures of the external environment. A conceptual paper by Mohr and Nevin (1990) stressed that communication in marketing channel relationships vary greatly depending on the characteristics of the channels themselves. Similar arguments have been made in supply chain management (Samaddar *et al.*, 2006). In this study, the intensity of information sharing was positively related to environmental uncertainty, demand uncertainty, the key supplier's dependence on the buyer, and the buyer's dependence on the supplier. In turn, the intensity of information shared is positively related to resource performance, output performance, and flexibility performance (Yigitbasioglu, 2010). The size of the supply base may also affect the willingness of a firm to share information. If the supplier base is large enough, buyers perceive less chance of opportunism among supplying firms, and are more likely to share strategic information (Mohtadi, 2008). While not specifically focused on information sharing mechanisms, the presence of a buyer's time coping mechanisms can greatly influence the means and level in which information is shared between buyers and suppliers (Thomas *et al.*, 2011). Information can be shared through automated mechanisms, which can increase the available data to both parties, assuming that the insight from this data is acted upon (Finne and Sivonen, 2009).

2.3 - Trust and buyer-supplier information sharing

2.3.1 - Considerations of interfirm trust

As a relational construct, trust is of special interest for this thesis as a factor linked to information (Easterby-Smith *et al.*, 2008). It is a complex and multi-faceted concept (Blois, 1999; Blomqvist, 1997; Mayer *et al.*, 1995), and has been considered as part of the interfirm “atmosphere” by IMP scholars. The atmosphere is a component in developing true commitment from an exchange partner (Gadde and Håkansson, 2001). Trust has varying outcomes for strategic information sharing, yet an increase in trust generally facilitates the sharing of internal strategic information (Frazier *et al.*, 2009). Trust is also a unique governance mechanism because the investments that buyers and suppliers make to build trust also create economic value in the exchange relationship through the minimization of transaction costs (Dyer and Chu, 2003).

For the two studies in this thesis focusing explicitly on trust, my colleagues and I have adopted two prominent definitions. In study 4 on the trust repair process, we consider trust as “*the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party*” (Mayer *et al.*, 1995, pg. 712). From study 1, we adopt Blomqvist's (1997, p. 282) proposed definition as “*an actor's expectation of the other party's competence and goodwill*”. This definition breaks trust into a competence and a goodwill component (Das and Teng, 1998; Sako, 1992), and is a fitting complement of the first. That is, one party must be willing to be vulnerable to the actions regarding the competence and the goodwill of the other. In this sense, competence trust focuses on a party's ability or technical performance for a specific task, while goodwill concerns a partner's good faith and intentions (Das and Teng, 2001). As will be reviewed here, the literature on the link between trust and information sharing is wide, yet still requires further exploration.

Blois (1999) outlined several complications when studying and conceptualizing interfirm trust, which arguably still remain in the more current literature. They are also useful in distinguishing what is exactly meant by trust, and they will form the basis for this part of the discussion. First of all, he critically distinguishes goodwill and ability, as the second of the above definitions suggests. He claims that trust is not solely based on reliance. From a buyer-supplier perspective, one can say that a buyer might rely on a supplier's ability to deliver a product on time, but in cases where unforeseen problems arise, the buyer must trust the supplier to go above and beyond what is required to ensure the problem is fixed. Therefore, trust is also contingent on a partner's goodwill and good intentions (Blomqvist, 1997). This was also observed by Uzzi (1997), who found that trusted partners would make efforts to offer extra benefits to

customers with no formal governance mechanism to enforce this practice. Moreover, trust has been measured and broken down into a number of different components, such as credibility, faith, integrity, and honesty – to name a few (Seppänen *et al.*, 2007).

The second consideration is what Blois (1999) terms “blanket trust” - the presence of trust in all situations. Many studies incorrectly assume that trust applies to all situations. But trust is context and task dependent, and although a buyer might trust a supplier to perform task *A*, they may not trust them to do task *B* due to previous negative experiences, for example. Therefore, when asking one party if they trust another, one must consider exactly what they trust them to do (or not do) (Mayer *et al.*, 1995)! It is also possible that the same buyer may have no opinion or evaluation on a supplier to perform task *C*. This point also highlights a difference between “no trust” and “distrust”. That is, there is a further distinction than simply stating whether there is a presence or absence of trust. A lack of trust exists when one party has no basis of evaluating whether an actor is trustworthy or not. Conversely, distrust exists when one party perceives the other is not sharing key values (Sitkin and Roth, 1993). Distrust may arise out of trust being violated by the actions of another, which would confirm that they are not to be trusted in that particular context.

The third point in Blois (1999) is related to the idea of reciprocity, and is closely related to the second point. Trust is often considered to be reciprocal in nature, but this is not always the case. Just because one party trusts another, does not mean that this trust has to be reciprocated. If *A* trusts *B*, then *B*, may not need to trust *A*, or even know that there has been trust placed upon them (Blois, 1999). Trust is built on the perception of both parties, and each has their own personality, experience and propensity to trust (Mayer *et al.*, 1995). One party *A*, although knowing that *B* has placed their trust in them, may not have reached the same level of trust, and might feel no obligation to reciprocate. However, reciprocity is one of many antecedents to trust and relationship development according to many views of Social Exchange Theory, in general (Cropanzano and Mitchell, 2005). Therefore, reciprocity may be at least one of the many dimensions of trust (Seppänen *et al.*, 2007), but not a requirement.

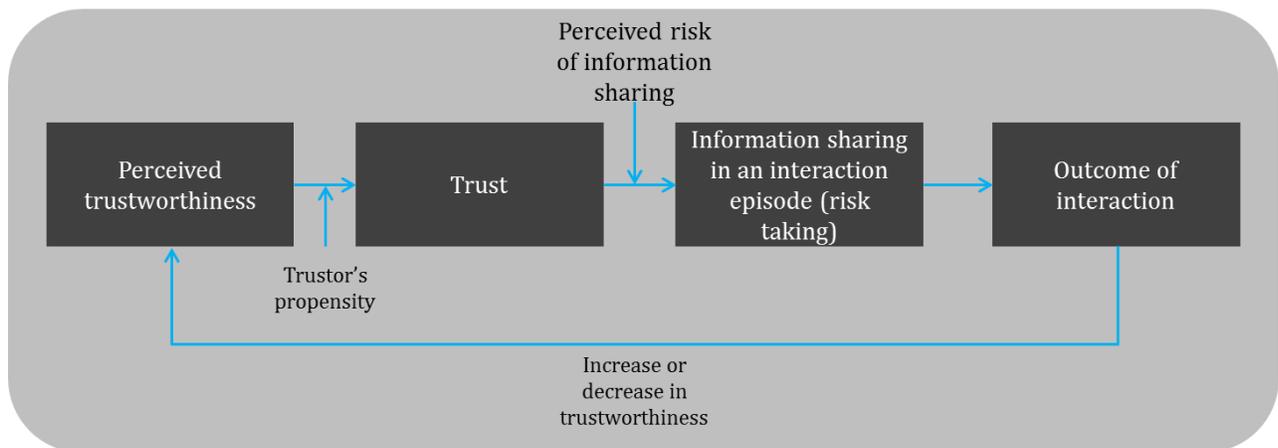
The fourth consideration clarifies the above point, and focuses on the distinction between trust and trustworthiness. It is generally argued that many studies claiming to focus on trust are actually focused on trustworthiness (Blois, 1999). Trustworthiness focuses on a party’s disposition and motivations. It is the characteristic that trust is actually based upon, and it is the trustor’s perception of the intentions, ability, and expected behaviours of the trustee (Becerra *et al.*, 2008). Trust is built upon the assumption that a party is trustworthy. Barney and Hansen (1994) argued that trust is a mutual understanding, which is an attribute of a relationship, and the perception of the parties within it. Trustworthiness is an attribute of the individual actors involved, and they concluded that a firm developing trustworthiness can be a source of

competitive advantage as other parties are more likely to trust them. Finally, Blois (1999) outlines that while several studies appear to assume that organizations trust, it is generally the people within organizations who are the ones that trust. The object of trust, or the trustee may be an organization as whole, but it is generally assumed in this thesis that the individual within an organization is the trustor (Perrone *et al.*, 2003; Zaheer *et al.*, 1998).

2.3.2 – An illustration of trust and information sharing

The studies reviewing trust and information sharing are numerous (see Appendix A – table C). Trust is closely, yet complexly linked to information sharing in a variety of ways (Becerra *et al.*, 2008; Dyer and Chu, 2003; Frazier *et al.*, 2009). The exchange of information during interaction episodes successively builds up inter-organizational contact patterns, role relationships, and the overall atmosphere (Håkansson, 1982). Trust is very useful in governing information sharing in cases where the product is complex, or if there is a high-level of market uncertainty (Frazier *et al.*, 2009; Yigitbasioglu, 2010). It gives a partner confidence that the quality of information is high, and that recommendations provided from an exchange partner are in both parties’ best interest (Das and Teng, 1998). Managerial ties that develop trust can significantly improve the quality of the information shared, and the extent of information sharing (Wang *et al.*, 2014). Trust and information sharing are central features of close and embedded ties between buyers and suppliers (Uzzi, 1997). Trust and information sharing develop through an iterative process, whereby trust encourages information sharing, which can then again foster more trust in the exchange partner (Anderson and Narus, 1990; Dyer and Chu, 2003). To illustrate this cyclical and iterative nature, I have adapted the Mayer *et al.*, (1995) proposed model of trust to account for information sharing as the particular risk taking action. This is shown below in Figure 3.

Figure 3: A model of trust relating to information sharing



Adapted from Mayer *et al.*, (1995)

Information sharing involves the sharer of information (the trustor) to take risk by sharing information with the receiver (the trustee). In this model, the perceived trustworthiness of the trustee must first be established in the mind of the trustor. This may be done through referrals, research, or other activities to establish the credibility or benevolence of the trustee (Ganesan, 1994). It may also take a gesture in good faith of one party to display that they are prepared to trust the other. Affecting the perceived trustworthiness is the trustor's propensity to trust, which may be dependent on their personalities or previous experiences in sharing (Mayer *et al.*, 1995).

As mentioned in the section on information sharing, the choice to share valuable information can place an actor at risk, as they are exposed to potentially opportunistic behaviour by the receiver (Dyer and Chu, 2003; Sezen and Yilmaz, 2007). Every bit of additional information (especially strategic information) revealed to suppliers increases a firm's vulnerability (Wathne and Heide, 2000), and therefore trust in the partner is a critical determinant of information exchange (Morgan and Hunt, 1994; Sezen and Yilmaz, 2007). Trust requires vulnerability and uncertainty, as under perfect information, there is no trust, but simply a rational calculation of whether to share an extra piece of information (Blomqvist, 1997). This is emphasized by Barney and Hansen's (1994) view, where interfirm trust can be in a weak form, semi-strong form, or strong form, depending on the overall perceived risk or vulnerability inherent in the structure of the relationship. Conversely, no information regarding the other party leads to instances of faith or gambling, and no consideration of trust exists (Blomqvist, 1997). When an interaction is about to take place, the trustor perceives some degree of risk before they share sensitive information.

Over time, the trustor can evaluate whether there were any negative repercussions, opportunism, or ill will from the receiver of information, such as leaking it to an unwanted party. This, in turn, influences the resulting trustworthiness of the trustee once more to determine the willingness of the trustor to share information in future interactions. This may not always be the case, however, and Sezen and Yilmaz (2007) argue that information sharing should be highly contingent on the ability of the trustor to detect that opportunism has occurred, and that punitive measures can be taken. The trustee can behave opportunistically in a number of ways with sensitive information that was shared by the trustor. For example, they can use profit margin information to negotiate for lower prices, thus squeezing the margins of the sharer (Dyer and Chu, 2003). There have also been cases where a buyer has shared information about their market with a supplier, who was eventually able to gain a thorough understanding of the buyer's customer base. The supplier began selling directly to the end consumer, cutting the buyer out of the supply chain completely (Hamel *et al.*, 1989). There are a number of ways through which trustworthiness deteriorates, which can lead to a breach or a violation of trust. This will be examined in more detail in section 2.3.4.

2.3.3 – Complexities of the trust-information sharing link

The above cycle is a good way to conceptualize the general positive relationship between trust and information sharing, but the relationship is not always this simple. The outlined considerations of trust, and the multi-dimensional issue of information sharing illustrate the added complexity of this link. The result is a number of extra factors and caveats that change the dynamics of this cycle. These will be discussed in parallel with Blois' (1999) considerations of trust. First of all, there are also cases where the sharer of information must consider if the receiver has good intentions, and will act in the best interest of the sharer when sensitive information is provided (Dyer and Chu, 2003; Uzzi, 1997). With trust comprising both a goodwill and a competence component, there are likely variations in how they impact information sharing (Das and Teng, 2001). For example, goodwill trust has been found to contribute more to interfirm learning than competence trust (Sezen and Yilmaz, 2007). These two components reflect the consideration of whether a firm will share information due to concerns whether the receiver is competent to act on the insight the information yields, and whether the receiving party will act opportunistically having received this information, respectively (Ganesan, 1994; Ireland and Webb, 2007).

Second, since trust is not a “blanket term”, the sharer of information may not know if the receiver of information will act similarly in different situations, or if they will act outside of the interests of the sharer for different types of information being shared (Becerra *et al.*, 2008; Blois, 1999). Research has found that the type of information involved also impacts the perceived risk of the trustor. For example, Becerra *et al.*, (2008) suggest that more tacit knowledge is associated with a party's higher willingness to take risk, and tacit knowledge is more associated with the need for perceived trustworthiness in the exchange partner.

When one considers reciprocity, similar to trust, it should also not be assumed that information sharing is reciprocated between two parties. Parties in an interfirm relationship are not equally informed about a transaction, which creates a level of information asymmetry in the buyer-supplier relationship (Mishra *et al.*, 1998; Tong and Crosno, 2015). Limiting information sharing, and therefore exacerbating the level of information asymmetry can be a source of rents for the firm withholding the information (Patnayakuni *et al.*, 2006). Specific to the retail sector, small suppliers likely share little information with larger buyers, as the small supplier does not possess the competence to share valuable information that the retailer needs (Corsten and Kumar, 2005). The lack of reciprocity in information sharing should be considered alongside the lack of reciprocating trust.

Finally, when considering the nature of the trustee, previous research has outlined that individuals can trust individuals in an organization, as well as have a general feeling of trust about the entire organization (Zaheer *et al.*, 1998). But there are often differences in how a buyer trusts a salesperson from a supplier versus the organization as a whole (Ebrahim-Khanjari *et al.*, 2012; Plank *et al.*, 1999), and therefore there

exists differences in the information that will be shared. Finally, the trust-information sharing relationship does not provide a continuously increasing cycle – there is a limit to what trust can do (Ryu *et al.*, 2007). Given the complexity of trust and information sharing within buyer-supplier relationships, this link is ripe for further exploration (Blois, 1999).

2.3.4 – Trust breach and repair and information sharing

Study 4 focuses specifically on the issue of trust being violated or breached, and in study 1, we argue that there is a related difference between not sharing information and actively withholding it – which relates to the lack of trust or distrust. Trust violations can be defined as “*the failure of one party to perform in line with the expectations of the other*” (Janowicz-Panjaitan and Krishnan, 2009, p. 245), and trust repair is the subsequent actions of the trustee to return the relationship to a normal state. Several theoretical models have been proposed regarding trust repair between firms (Dirks *et al.*, 2009; Gillespie and Dietz, 2009; Janowicz-Panjaitan and Krishnan, 2009; Kim *et al.*, 2009; Tomlinson and Mayer, 2009). If we refer to the model in Figure 2, a trust breach would be considered an outcome of information sharing, which would have negative consequences on the perceived trustworthiness. The severity of the breach, the repair tactic, and the complementary governance mechanisms will determine if the relationship will continue, and if trust is restored (Janowicz-Panjaitan and Krishnan, 2009; Kim *et al.*, 2009). For example, trust can be effectively repaired if a breach occurs at the operational level of a relationship, if a goodwill trust-based violation occurred, and if there is a high level of interdependence between each partner (Janowicz-Panjaitan and Krishnan, 2009). If no repair occurs, there can be a level of distrust in the relationship.

Trust violations are linked to information sharing in a number of ways. A buyer may voluntarily choose to share information with suppliers since it trusts them not to take advantage of the vulnerability that it represents. This information is assumed to be useful for the suppliers. Alternatively, buyers may choose to keep some information to themselves to either protect them from supplier opportunism, or maintain a deliberate degree of information asymmetry (Sezen and Yilmaz, 2007; Tong and Crosno, 2015). However, information may be withheld by a buyer for a number of reasons. One may be that the buyer has no idea about how much they should trust or distrust a party. This would result in a level of information sharing that has not yet developed. After a breach or a violation of trust, information that would have otherwise been shared is not withheld due to the resulting distrust, or deterioration of trust (Sitkin and Roth, 1993). Only if trust can be repaired can information sharing return to previous levels.

3.0 | Research approach and methods

This section will clarify the overall research approach and philosophy for this thesis as a whole, and provide an overview on these methods for the individual papers. It begins by explaining the interpretive research approach and case study design, both of which are applied to each paper of the thesis. It then moves on to discuss the particular case summaries and data collection methods for the respective cases.

3.1 - Considerations of the interpretive research approach

The interpretive approach to social research (also often labelled as relativist, constructivist or naturalistic) in its extreme philosophical form maintains that there can be no external reality that is independent of our human consciousness; there are only different meanings and classifications attached to the world by people, and especially researchers (Robson, 2011). It has a well-established academic “following”, especially in research involving the reconstruction of interactions between actors of the buyer and supplier firms (Lowe and Hwang, 2012; Schurr *et al.*, 2008). This is due to the nature of the business-to-business exchange, as it is socially-embedded, and takes place through complex action-reaction patterns (Boejgaard and Ellegaard, 2010). This requires a need for an ontology that can account for a reality with a high degree of subjectivity, and dependent on the views of the actors and the context involved to account for the richness of the case and findings (Gummesson, 2003; Schurr, 2007).

Central to the interpretive process is the reliance on hermeneutics, referring to a necessary interpretation and understanding as part of the research process. That is, there is an inescapable action of interpretation in the social research process (Eriksson and Kovalainen, 2008). In his book, Robson (2011) outlined eight major features of the approach:

1. Scientific accounts are not privileged, as they are equal to other accounts. Different approaches are alternative ways at looking at the world. They should be described, rather than be evaluated in terms of their predictive power, explanatory value or absolute truth.
2. Choice of a theoretical framework is not entirely rational; there are always moral, aesthetic or other values that play a role in these choices.
3. An existence of an external reality independent of our theoretical beliefs and concepts is denied.
4. The role of language is emphasized, as an object of study and how the world is constructed and represented.

5. There is an emphasis placed on viewing the meaning of experience, and behaviour in context in its full complexity.
6. The research process is about generating working hypotheses rather than absolute empirical facts.
7. Theory is built by the emergence of concepts from the data, rather than their imposition in terms of a priori theory.
8. Qualitative methodologies are used.

The characteristics of the interpretive approach frame its key strengths. These strengths underline the key reasons of why it was an appropriate approach for this PhD thesis. Generally, this approach was chosen to reflect and consider participants' likely biased accounts of their realities, to provide an opportunity to understand interactions through the hermeneutic circle, and to recognize the role of experiences and bias in the selection of new and insightful theoretical explanations. For one, concepts like trust and B2B relationships require a researcher to gain an understanding of the subjective thoughts and feelings of the respondents involved, which is a common aim of the interpretive researcher (Bizzi and Langley, 2012). It has also been argued that B2B relationships are themselves socially constructed (Blois, 2003), which suggests the need for an approach to reflect this construction. Therefore, I needed to choose an approach that could account for the views, and perceptions of the focal actors – a characteristic emphasised by the first point above. To accomplish this, the interpretive approach leans on the science of hermeneutics, which helps researchers find meaning in what managers do in their daily practices (Gummesson, 2003). Moreover, the interpretive approach is ideal for uncovering complex theoretical links. The interpretive approach embraces complexity, through constructing rich theoretical narratives (Halinen *et al.*, 2012; Langley, 1999). Since this thesis aims at uncovering some complex links between specific interactions and the overall buyer-supplier relationships, the interpretive approach is highly appropriate. The rest of the section will describe these points in more detail.

First of all, the emic view of any interview participants (especially in studies 1 and 2) is not something that should be taken as a true reality (Woodside *et al.*, 2005). The interpretive approach recognizes this, and lends itself to a research method that allows participants to describe events and stories in rich detail. Moreover, it accounts for potential biases and distortions in the narratives of the participants (Klein and Myers, 1999). With that as a basis, researchers can then generate material that can be used to make meaningful interpretations. While the interpretive approach argues that no true form of reality exists, I have completed my research with a slightly critical realist “flavour”. This was due to the rich email data that allowed for some form of objective reality to be reconstructed. In studies 3 and 4 of this thesis, email data were examined to give insight into buyer-supplier interactions. These data can provide the foundation for a well-informed account for what occurred, and if coupled with views and description from those who

wrote them, one can sow the seeds for an in-depth description, reconstruction, and interpretation of the meaning behind events that transpired (Olkkonen *et al.*, 2000).

Second, as a researcher interacting with data embedded in a complex environment, there must be iteration between analysing individual interactions, and the wider environment. The series of iterations are known as the hermeneutic circle (Gummesson, 2003; Klein and Myers, 1999; Robson, 2011). This allows the researcher to draw complete meaning from the analytical material, and embrace its complexity by placing this understanding within its rich context (Klein and Myers, 1999). The hermeneutic circle explains that the researcher moves from preunderstanding, to understanding in a research project. The circle continues as one's first phase of understanding builds a foundation for the next phase of preunderstanding of the project. Most normative descriptions on case studies do not consider the characteristics of an "intertwined" research process where the researcher goes back and forth between the data, existing theory, and developing a theoretical framework - which results in a description of a very linear process (Dubois and Gadde, 2002). From a personal perspective, it was also clear that this hermeneutic circle (or continuous "back and forth" alternation) was present and necessary throughout my entire PhD and paper writing processes. This also includes the development of the understanding of the B2B field, and the idea of what constitutes information – a primary focus of this thesis. It was also a central idea in the interpretation of the data gathered, which often required many layers of understanding, starting with a general idea of the research context, and going all the way down to the fine details within the observed and described interactions.

Third, the interpretive approach allows for the researcher to recognize that they choose their own theoretical lenses, yet these choices are not necessarily rational or independent from a researcher's judgment (Robson, 2011). Gummesson (2003) argues that no ready-to-consume research pops out from a vending machine like a can of soda, after inserting the right amount of money and pushing the right buttons. There is an interpretive process from the start of the research process to the very end. Business-to-business research attempts to understand a set of very complex relationships and interactions among firms. Firms and these relationships deal with complexity, ambiguity, chaos, fuzzy boundaries, uncertainty, and ever-changing technology and market places. Research methods should adapt to this reality (Gummesson, 2003). As a young researcher, there is no doubt from my own experiences that my choices of interpretive lenses are likely influenced by limited familiarity with the wide range of choices from the toolbox of theories.

Finally, a concern is that data represents the researcher's constructions of other people's constructions (Woodside and Wilson, 2003). The views of Yin (2009) on case study design emphasize characteristics of external and internal validity, reliability, and objectivity. Alternatively, the interpretive approach replaces

such methodological conventions by their own justification. Walsham and Sahay (1999) propose that this research should be judged by authenticity, criticality, and plausibility. This means that the researcher should be genuine about their field experience, relate to the readers, and induce readers to challenge and question ideas that they normally take for granted, respectively. Interpretive research assumes that there are many interpretations of the data, all of which are potentially meaningful (Eriksson and Kovalainen, 2008). The approach should be transparent for the reader to decide. I have attempted to provide enough detail and description for readers to have a good and thorough understanding of the events described, and to be able to relate to these descriptions (Shenton, 2004). I have also found inspiration in Gummesson (2003), who concluded that such a researcher is one who is entrepreneurial, seeking to find marketing treasures like Indiana Jones, and solving marketing mysteries as Sherlock Holmes.

3.2 - Case study research design

The four studies presented in the thesis are derived from two research settings: a Danish Do-it-yourself (DIY) retailer (HomeCo), and a Canadian bicycle retailer (BikeSmart). Through these two settings, two single case studies were conducted with HomeCo, and two embedded case studies were conducted with BikeSmart. In this subsection I will review the process and criticisms of the case study as a research design, and outline the quality criteria considered in the four studies.

3.2.1 – *Building theory from case studies*

As stated by some of the leading authorities of case study research “*building theory from case studies is a research strategy that involves using one or more cases to create theoretical constructs, propositions and/or midrange theory from case-based, empirical evidence*” (Eisenhardt and Graebner, 2007; pg. 25). Case studies have a long tradition in business research, and are frequently used in B2B studies (Borghini *et al.*, 2010; Dubois and Gadde, 2002; Piekkari *et al.*, 2010). Some of the more influential case studies during my PhD process included Uzzi (1997), Ness (2009), Eisenhardt (1989b), and Larson (1992). Case studies are concerned with understanding the dynamics present within single or a small number of settings (Eisenhardt, 1989a). They are also ideal approaches for analysing interactions between actors within firms such as critical incidents, or interactions that bring about changes in B2B relationships (Håkansson and Waluszewski, 2013; La Rocca *et al.*, 2017; Schurr, 2007). This holds particularly true when the researcher is looking to make a thick description, interpretation of meaning, and a thorough understanding of a particular case or set of cases (Eriksson and Kovalainen, 2008). Proponents for case study research and interpretive designs in B2B marketing studies also include Gummesson (2007; 2003), Woodside *et al.*, (2005), and Woodside and Wilson (2003).

The case-based approach was chosen for the PhD due primarily to its flexibility, versatility, and the evolving nature of the case study design. The flexibility, and the versatility of case studies are celebrated in the eyes of case study researchers, but are also often one of the primary criticisms towards this design (Dubois and Araujo, 2007; Flyvbjerg, 2006). Case studies are often criticized for their generalizability, and are therefore less useful for generating more general propositions from the basis of a context-specific case (Flyvbjerg, 2006; Yin, 2009). Flyvbjerg (2006) expanded on this criticism by also stating that case studies have been criticized due to a perceived lack of importance of context-dependent knowledge, their perceived tendency to confirm the expectations of the researcher, and their limited use for developing hypotheses or propositions. However, many of these criticisms should be viewed as advantages for this approach. For example, learning from a particular case through the examination of how it interacts with its environmental context is best understood through in-depth case studies, and not through context-independent knowledge (Dubois and Gadde, 2002).

Case studies are versatile, meaning they are not limited to inductively creating hypotheses. While their ability to generalize is criticized, they can be designed to develop more robust propositions by examining phenomena across several cases (Dubois and Araujo, 2007; Eisenhardt, 1989a; Yin, 2009)). They can serve to explore new concepts and theories, while also refining concepts and the scope of theories even after quantitative research has attempted to extend the findings to other contexts. Overall, the option to build theories by focusing on thick descriptions and narratives within single cases demonstrates the versatility of the method (Corbin and Strauss, 1990; Dyer and Wilkins, 1991), and this should be celebrated (Dubois and Araujo, 2007). The true strength of case studies lies in their ability to go beyond descriptions by studying hugely complex contexts, linking large numbers of variables, and potential in combining both deductive and inductive methods (or even either one of these approaches) (Gummesson, 2007). Conversely, survey-based methods assume that fixed-point scales to measure complex constructs such as trust can truly capture the nuanced thought-processes and interpretations of the actor involved. These methods within business-to-business and industrial marketing settings assume that single respondents are able and willing to report on their own thought processes, as well as those of surrounding actors without closely examining those respondents (Woodside and Wilson, 2003). It has been noted that for concepts such as trust, a small number of survey questions cannot possibly begin to uncover its nuances and complexity (Blois, 1999).

Case studies are iterative and evolving, especially from the interpretivist perspective (Dubois and Gadde, 2002). Case study discussions and the processes of theorizing are often guided by the more positivistic views, anchored by Yin's (2009) (originally written in 1984) textbook on case study methods. Positivist approaches have also been prominent within industrial marketing studies (Beverland and Lindgreen,

2010). The process of theorizing from this perspective has been labelled as more deductive, linear, and in search of an absolute trust within case contexts (Piekkari *et al.*, 2010). While these approaches are valuable and frequently used, they have been contested by proponents of the interpretive research approach (Gummesson, 2003). For instance, in their highly influential article (and while leaning towards a critical realist perspective), Dubois & Gadde (2002) propose that developing theory is a process of systematic combining, where the research goes back and forth between the data – in alignment with the idea of the hermeneutic circle. Therefore, they propose that researchers should not seek to minimize the evolving nature of case study designs. The delineation of the boundaries of the study, and theoretical contributions should be deferred, once a more comprehensive understanding has been developed between the data, theory and case design.

3.2.2 – Case study credibility criteria

Several researchers have suggested guidelines for conducting high-quality qualitative case study research (Dubois and Araujo, 2007; Klein and Myers, 1999; Piekkari *et al.*, 2010; Shenton, 2004; Walsham and Sahay, 1999; Yin, 2009), which have been considered for each study in this thesis. Like many other research approaches, case studies are often criticized for their lack of quality and transparency (Flyvbjerg, 2006). While there are no stringent guidelines for implementing high-quality case study research, Piekkari *et al.* (2010) outlined their view of best practices from a more linear and positivistic perspective, through a literature review of 145 case studies in the area of industrial marketing. Their best practices address the areas of 1) relating theory to economic data, 2) justifying the choice of a case, 3) establishing the case boundaries, 4) selecting the appropriate data sources, 5) analysing findings and reducing data, 6) ensuring data quality, and 7) writing up results. They categorised sub-practices within these areas under the labels of “innovative practice,” “good practice” and “common practice”. While they outlined a more linear process, they found that the practices they labelled as more “innovative” for case study research were more likely found in the less linear research processes as suggested by the more interpretive views of Gummesson (2003). Another example of a prominent paper outlining the principles to ensure quality comes from the information systems literature, which states their own seven guiding principles for the process (Klein and Myers, 1999). As a general approach for generating theory, the papers in this thesis consider the best practices addressed by many positivist case studies, yet with an interpretivist “flavour”. This was suggested by Walsham and Sahay (1999), and I consider the credibility criteria of authenticity, plausibility, and criticality, and summarise their application to the thesis in Table 3.

Table 3: Quality criteria for case study research*	
Criteria	Measures taken
Authenticity: being genuine to the field experience	<ul style="list-style-type: none"> - Document daily interactions from field study through reflective journal entries - Provide observational notes to interview data to have a clear picture of the interview context and attitude of the participant - Choose research settings (such as BikeSmart) that are familiar to the researcher
Criticality: ability of text to get readers to question the findings, and taken for granted beliefs and ideas	<ul style="list-style-type: none"> - Choose topics that challenge everyday beliefs - Develop new, detailed theories, breaking down concepts rather than accepting them as a whole - Offer additional explanations for the findings - Allow flexibility in the methods to not constrain the researcher to a specific set of findings
Plausibility: ability of the text to connect to the experience of the reader	<ul style="list-style-type: none"> - Present the data through a balance of “showing and telling” - Describe the cases in as much detail as possible, given the restriction for publication requirements

* Adopted from Walsham and Sahay (1999)

3.3 - Case summaries and selection

Case selection is arguably one of the most important methodological considerations for the case study design (Dubois and Araujo, 2007). This thesis is composed of two case firms – HomeCo and BikeSmart (named CycleSmart in study 4). Both research settings in this thesis, and the embedded cases within them have been assigned pseudonyms to protect the privacy of the firms and the individuals involved. Promising this anonymity to the interview participants and case firms allowed me to collect more sensitive information, and to promote a more open environment during the data collection process. While each case is described in the individual papers, a brief summary and justification for their choice will be included in the following subsections.

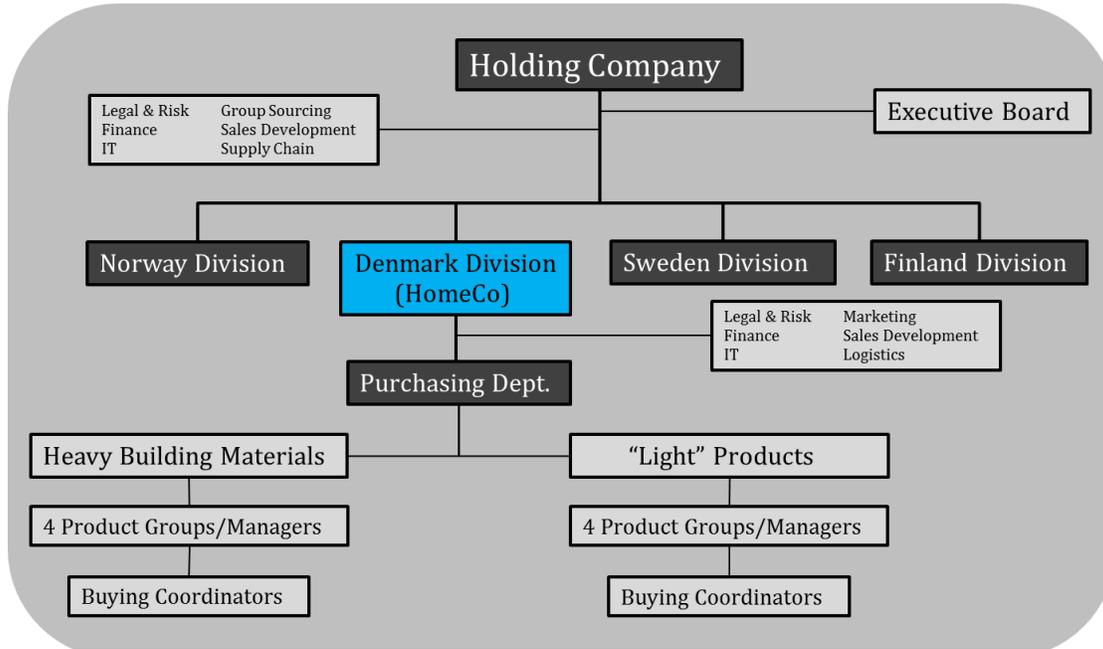
3.3.1 – HomeCo

HomeCo is a Danish Do-it-yourself (DIY) retailer with both physical and online distribution channels. It operates over 40 stores across Denmark. As a retailer in this category, HomeCo offers a range of home

improvement products aimed at the average home owner or renter. The structure of HomeCo is featured in Figure 3. HomeCo is a daughter company of a larger holding company operating similar retailers in Sweden, Norway, and Finland. Purchasing for HomeCo is divided throughout several product categories, including flooring and concrete, building materials, garden, electronics, tools and equipment, plumbing and sanitation, and paint. HomeCo offers a variety of known manufacturer brands, but also offers several private label products sourced from Asia and Eastern Europe.

The studies (1 and 2) on HomeCo have a stronger focus on information sharing, and therefore this was a primary focus when choosing it as a case firm. HomeCo was chosen after meeting with several other potential case firms. It was necessary that a firm was chosen whose purchasers communicated on a daily basis with their suppliers to ensure that information was traded frequently between firms. Moreover, the type of information exchanged needed to be strategic in nature, which included marketing information, joint inventory management, and other types (Frazier *et al.*, 2009; Samaddar *et al.*, 2006). It was also important to discover that while there are some rules for organizing the supplier base, many of the Product Managers had the ability to change and modify the supplier base. Finally, the firm needed to be willing to participate in a study to ensure adequate support from the firm's employees and managers. After an initial meeting with a manager within HomeCo, and approval from upper management to collect the data, this firm was deemed as a helpful, relevant, and a pertinent case for buyer-supplier information sharing.

Figure 4: Structure of HomeCo case firm



3.3.2 – BikeSmart

BikeSmart is a small Canadian high-end bicycle retailer located in rural Canada. It was founded in 2003 by two young entrepreneurs, yet is owned and managed by only one remaining partner. BikeSmart specialises in a wide range of expensive bicycles, but also offers accompanying parts, accessories and clothing for bicycling. During the winter months, BikeSmart offers Nordic skis, snowshoes, and the respective winter clothing. It also has a repair, rental, and tour service. Email data for BikeSmart were collected for the period of 2012 to the middle of 2016. Sales for this period grew for the retailer, yet remained under a million Canadian dollars. This places BikeSmart in the category of a small retailer by all definitions. The structure of the firm is simple when compared to HomeCo, with the owner having authority to make all management decisions. While the employees varied throughout the studied timeframe, there was always one bookkeeper, one sales manager, 1-2 mechanics, and 1-2 part-time sales associates – reflecting a functional division of labour.

BikeSmart was chosen as a case for several reasons, but with studies focusing on individual interactions for studies 3 and 4, the ability to collect data to analyse these interaction episodes was a top priority. First of all, as a small retailer, its structure and many of its daily operations are not complicated. This allowed a simplified context to study complex phenomena. For example, study 4 on bilateral trust repair addresses a complex topic. The exchanges involving trust repair were somewhat simple in nature: generally involving placing a product order, payment for the order, and the after sales services offered by the supplier. These

processes occurred between limited numbers of actors. Therefore, a simple research setting was required to facilitate an examination of the specific processes occurring between the actors and firms. Secondly, while email data is not new to management research, it can be sensitive in nature, which required a firm that was open in allowing access to this data. The owner of BikeSmart was a known contact of mine, which made collecting this type of data possible. Finally, when choosing the individual suppliers and email data, there needed to be a sufficient amount of communication in terms of frequency and meaningful content to analyse. A preliminary examination of the email data revealed that daily communication with five key suppliers, containing frequent conflict and problem solving processes was present, which met this criterion.

3.4 - Data collection and analysis

Table 4 summarises the empirical material for each paper in this thesis. Data collection from the two described cases takes a variety of formats. Table 4 shows that the primary data sources are semi-structured interviews (especially for HomeCo), email data (especially for BikeSmart), and ethnographic/field-based secondary data (present in both case settings).

Semi-structured interviews are a cornerstone of case study research. I have focused on interviewing buying managers in HomeCo, as these boundary spanners are valuable in gaining insight into both a buying firm's strategy and those of the suppliers they interact with (Ireland and Webb, 2007). With the chosen research approach, interviews should be an interpretive process, with a focus on describing features of stores and events when presenting the data (Nielsen, 2009). The setting allows the researcher to guide the collection of data, but gives an added degree of flexibility in the event that an interesting phenomenon is uncovered. In the words of Granot *et al.*, (2012, pg. 548) interviewing enables a better understanding of *“participants' thought processes, values, aspirations, and professional and life stories in context. In-depth interviewing leads to a more conscious awareness of the power of the social and organizational context of people's experience. Interviewing provides a deeper understanding of the issues, structures, processes, and policies that permeate participants' stories.”* However, the largest challenges of using interviews are related to the factors such as time, history, memory, and judgement processes that influence the participant's perceptions of reality (Edvardsson and Roos, 1992). As memory fades, it is likely that a participant's perspective on the degree of significance of a particular episode may fade (Schurr *et al.*, 2008).

Email data is not new to management research (see for example Orlikowski and Yates (1994)), yet is not often used in business-to-business specific studies. However, researchers have recently called for an increase in observation as a research method, with a stronger attempt to accurately reconstruct buyer-

supplier interactions (La Rocca *et al.*, 2017). Email data allow for researchers to draw interpretations from interactions that have already happened without a researcher's observation at the time, and allow the researcher to interpret and reconstruct the interaction episodes (Olkkonen *et al.*, 2000). Methodologically, the use of detailed email data has added a very interesting contribution to this thesis. Nevertheless, there are challenges working with these data. Research in the use of emails for negotiations and interactions between firms suggest that communication through email promotes different behaviours than face-to-face communications (Morris *et al.*, 2002). Sometimes email communication may limit the development of a relationship between actors, yet research shows that the medium may lead to more creative solutions to problems, and showing insight through noting similarities and differences between the communicators (Parlami and Geiger, 2014).

Combining the use of interview data or email data with either observation field data or company archival material has been the final central step in triangulating the studies research findings (Yin, 2009). Company materials and observations also aid in getting an overall understanding of a market and context (Granot *et al.*, 2012). Understanding this context is one of the important steps in interpreting the interactions that are either described by the interview participants for HomeCo, or which occur in the email data for BikeSmart. By gaining an understanding of the views of those who write the emails, the coding and interpretation is more informed (Orlikowski and Yates, 1994).

Table 4: Overview of empirical material		
Data Source	Amount	Description
HomeCo – Danish Do-it-yourself (DIY) retailer		
Semi-structured interviews	17 interviews	Interviews with HomeCo Product Managers and Buying Coordinators of approximately one hour each in duration.
Supplier presentations	Small slideshow	Slideshow summarises HomeCo sales, consumer brand recognition, marketing initiatives
Internal supplier satisfaction survey	622 pages	Results of supplier satisfaction survey, completed on all suppliers by HomeCo employees, implemented by HomeCo.
Purchaser training materials	44 pages	Slides and reading material for negotiations and supplier management tools that employees may access.
BikeSmart (referred to as CycleSmart in Study 4) – Small Canadian high-end bicycle retailer		
Email correspondence	2, 079 emails	Email correspondence with five key suppliers over two different BikeSmart email accounts between 2012 and 2016.
Field study	Two-weeks in duration	Visit to retailer during working days, including observations and informal staff interviews – recorded in a journal
Financial statements	18 pages	All financial statements for 2010-2015
Purchase records	Multiple large spreadsheets	Supplier orders and purchases for the same five suppliers examined in email data

3.4.1 – HomeCo data collection

As shown in Table 4, data from HomeCo consisted primarily of seventeen semi-structured interviews, along with a range of company archival material and secondary sources. After an initial meeting with a HomeCo contact, we determined which employees would be suitable to interview. It was decided that the focus would be on the purchasing department of the organization, as these individuals are the ones who interact with suppliers, and manage the development of these relationships. It was at this time when I was introduced to the roles of Product Managers and supporting Buying Coordinators. I was given a list with these individual’s contact information, and the initial contact at HomeCo informed them that I would be contacting them for an interview. I initially emailed a request to these individuals, and if needed, followed up with reminders and/or a telephone call. The initial plan was to interview 20-25 participants, however access to the organization seemed to become reduced over time, and there were fewer suitable participants

in the firm than originally predicted. Those who refused to participate often cited time constraints, or stated that they were so new in their positions that they would not have the ability to provide me with enough information regarding the study.

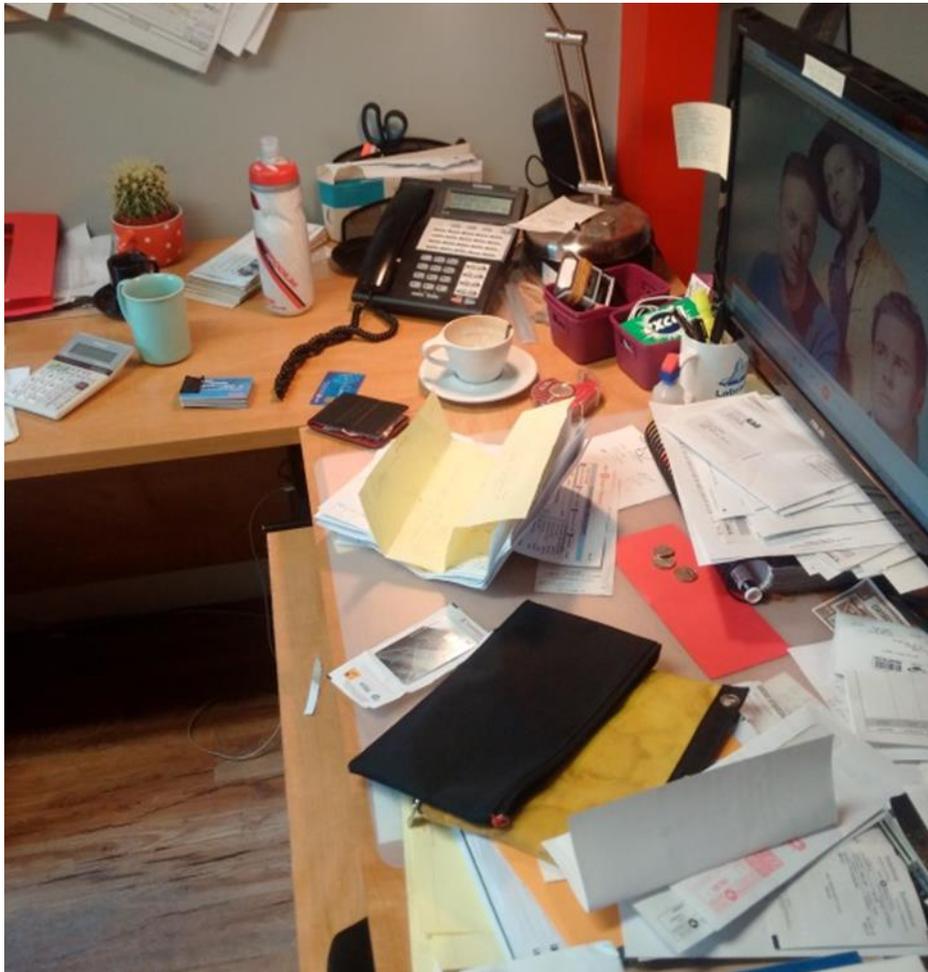
The seventeen interviews had two main stages, and the interview guide was developed and modified based on the recommendations from a panel of established researchers in the field. The finished interview guide can be found in Appendix B at the end of the thesis. This first stage identified the participant supplier base, how they themselves organized or sorted their suppliers, and how they viewed each relationship in terms of trust, power, flexibility, etc. During this stage, I also asked participants to draw or list their suppliers on a piece of paper, indicating how they viewed or organized their supplier base. This piece of paper was also used as an additional guide for the remaining of the interview. The second stage focused on the information sharing that took place within each supplier relationship. I focused in particular on sensitive and strategic information that is more valuable if shared, and may come at the detriment of the sharer if leaked to an unwanted party. During interviews I also asked if participants had any documents about the meeting they held with suppliers, or if they had any supplementary material that would help my understanding of other supplier relationships. This is how I obtained company material which included slideshows used at buyer-supplier meetings, negotiation training material for product managers, and a survey that measures the satisfaction of the HomeCo employees with all suppliers of the HomeCo holding company. Company materials were used to corroborate and triangulate descriptions from the interview participants (Yin, 2009). For example, in study 2, if buying managers claimed that a supplier became unfavourable, HomeCo's supplier satisfaction survey could either confirm that this view was shared throughout the entire firm, or suggest that it was a perception of the particular interview participant.

3.4.2 – BikeSmart data collection

The main data source from BikeSmart consisted of over two thousand emails between the retailer and five suppliers, consisting of approximately 700 pages of text. While the sheer amount of email data presented a challenge in its analysis, they were invaluable for reconstructing the interaction episodes between firms. These data were also supplemented by a two-week field study at the location of the retailer. The owner of BikeSmart was a well-known contact of mine, which provided a connection for the first proposal to conduct a case study in the firm. This was also quite useful in facilitating the collection of email data, which is typically sensitive, and difficult to obtain. To collect the email data, I first began by asking the owner and employees of BikeSmart about their largest and/or most key suppliers. This gave me a list of five suppliers, and from this list I searched under the two email accounts of the retailer – one dealing with sales, and the other with finances and payments. This formed the basis for the email data. The field study consisted of two weeks where I would observe employees during their workdays, paying particular

attention to how they reacted and interpreted interactions with suppliers. During work days I would also ask any additional questions that arose in the particular situation. All notes from these questions were recorded in a notebook throughout the day, and then transferred to electronic format. I also took pictures and made notes concerning the workspace and environment of the retailer to gain an understanding of the context (Snow et al., 2003) For example, Figure 5 shows on the primary computers from which the examined emails were written. BikeSmart also volunteered to supply all of their financial statements for the years 2012-2015, as well as spreadsheets listing each individual order amount to each supplier. This gave an accurate picture of each supplier relationship from a financial perspective, with the email data providing a large depth of social context among these relationships.

Figure 5: The BikeSmart retailer – sample photo



3.4.3 – Data analysis process

In line with the hermeneutic circle in the interpretive research process, data were analysed based on an iterative cycle between the data, the research environment, and theory to determine the research findings (Gummesson, 2003, 2007). In a paper on interviewing for business-to-business studies, Granot *et al.* (2012; pg. 549) summarised the recommendations of Creswell (1998) for interpretive/phenomenological ethnographies. I generally followed this process for both the interview and email data, while using company archival material for the understanding of the context among the earlier steps. I present a modified version of their process below:

1. Begin the study with a full description of my own experience of the phenomenon through a review of the interviews, research notes and archival material.
2. Find statements (in the interviews or emails) about how individuals are experiencing the topic, or the email interactions of interest. Then list these important statements, treat each statement as having equal worth, and develop a list of non-repetitive, non-overlapping statements.
3. These statements are grouped into codes. The researcher then describes these codes, through a description of what they represent and mean – including verbatim examples.
4. The researcher next reflects on his or her own description and seeks and writes other possible meanings and divergent perspectives.
5. The researcher then constructs an overall description of the meaning and the essence of the experience, and writes a full composition of the findings.

Steps like these served as an effective guide, yet they were not necessarily completed in a linear fashion. They required a cycle between the data, theory, and the research context. In some instances, not all steps were completed before starting the process over again. For example in study 1 on trust and information sharing, after step 3 where the data are coded, I would consult the theories once again to determine the best theory in which to place the interpretation – which in that case led me to the concepts of goodwill and competence-based trust. Similarly, in study 4, emails were qualitatively coded by dividing emails into units of code, and then more specifically to the focal concepts of trust breach and repair tactics.

As suggested by the above steps, it is important to represent the data and tell a compelling story to effectively develop theory through case studies (Dyer and Wilkins, 1991; Makkonen *et al.*, 2012). To accomplish this, a variety of tactics were employed to represent the data. Inspiration was taken from many of the mentioned cases studies such as Eisenhardt (1989a), Ness (2009), and Uzzi (1997). In study 1, we provide tables to visually summarise which interview participants referred to competence trust and information sharing in each interview. Study 2 on planned and emergent supplier management actions has the least amount of visual aids, yet aims to provide a more detailed picture of the data through providing

larger tables with more example quotes across the focal product groups. The BikeSmart studies (3 and 4) use both visual aids and examples on how data were coded. For example, study 4 follows an analysis and presentation approach similar to what Langley (1999) would label as the visual mapping strategy. She outlined that this approach is useful for observing a large number of events or units to be analysed, which was ideal when examining multiple trust breach and repair instances. The analysis of this paper focused on arranging all trust breach and repair tactics on a timeline, and according to whether the buyer or supplier was the one who was attempting to repair trust. Once all instances are coded according to this process, the data become presented in a much more condensed way. This visual map then allowed us to draw more meaning from the data, and suggest testable propositions to develop theory.

3.4.4 – Analysing for critical episodes: a special form of coding

For studies 2-4, the coding process focused on examining episodes of higher criticality within the interview and email data across both cases. Derived from the critical incident technique, it has been used historically to determine the causes of problems, beginning with the analysis of the causes of failures in the context of aviation (Flanagan, 1954). It has since been used to identify critical components of service quality, and in the business-to-business relationships (Roos, 2002; Strandvik and Holmlund, 2008). Arguably critical incidents involve a specific type of coding and analysis, in which the researcher looks for overly problematic or positive actions or episodes during the interfirm interaction (Holmlund-Rytkönen and Strandvik, 2005). These episodes are what can set the stage for eventual future relationship change, or bring about a sudden change directly following an interaction episode (Edvardsson *et al.*, 2014).

Coding for critical incidents followed three main steps: identifying the incidents in a particular setting, choosing the approach to describe these incidents, and interpreting and analysing the data (Holmlund-Rytkönen and Strandvik, 2005). First, identifying critical incidents requires the researcher to determine and interpret an intent or act that is “*clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effect*” (Flanagan, 1954; pg. 327). These incidents are either described by interview participants through the recounting of interactions, or identified within the email data. Secondly, the incidents are described through a detailed explanation, along with supporting quotations or text. This process yielded supported descriptions of each piece of text (Denzin, 2002). Finally, there is an interpretive lens applied to the incidents, and these incidents must be presented through this lens in the overall findings. The choice of lens or code in these instances is up to the researcher, and it is informed by the researcher’s own knowledge. For example, in study 3, I apply the interpretation of critical time, and the buyer’s role in social space, and the criticality to the interpretation of the incident. These concepts are informed by the literature, through the hermeneutic circle (Edvardsson, 2000;

Edvardsson *et al.*, 2014; Edvardsson and Strandvik, 2009; Gummesson, 2003). Summarising the findings of these incidents through a combination of thick descriptions and summary tables provide a way of supporting the interpretation and the overall findings. In study 4, trust breaches and the repair process are the episodes that are of interest and therefore undergo a very similar coding process.

Section 2 has introduced the research question for the thesis, and reviewed the theoretical foundations of the four studies that make up the bulk of the thesis. Section 3 has also provided an overview of the research approach employed, and how the data have been collected. With a general understanding of the goal and research process of the papers, the next section moves onto presenting each of the studies in their entirety. Each study will further explain their individual contributions and provide details on the data collection and analysis methods. The conclusions and managerial implications are then reviewed in section 5.

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4.0 | Presentation of the studies

4.1 – Study abstracts

Before moving on to presenting each study in its entirety, this section further reviews the major objectives and contributions of each study through four separate abstracts. It also highlights the status of each, in terms of its progress towards publication.

Study 1 (Section 4.2): The effects of goodwill and competence trust on strategic information sharing in buyer-supplier relationships

Authors: William Newell, Chris Ellegaard, and Lars Esbjerg

Status: An earlier version of this paper was presented at the 2016 IPSERA conference in Dortmund, Germany. It is now being reviewed under the first resubmission at the Journal of Business & Industrial Marketing.

This paper explores the trust and information sharing link. More specifically, we examine how a buying manager's goodwill and competence trust towards their suppliers relates to their choices to share strategic information. Therefore, we have broken down trust and information sharing into its different types. This study is focused on a single case study of HomeCo, a Danish DIY retailer. Data consist of seventeen semi-structured interviews with buying managers of the retail firm, accompanied by company archival materials. We find that goodwill trust has a positive effect on strategic information sharing, yet managers may limit the sharing of specific categories of strategic information regardless of the type of trust perceived by the buyer. Competence trust may be effective in promoting strategic information sharing, yet a loss of competence trust can limit many categories of information sharing. Furthermore, despite trusting the competence of a supplier, strategic information may not be shared due to differences among individual buyers, and due to competitive and institutional factors. This paper contributes to research by first unfolding the concepts of both trust and information sharing, and examining how the components of these concepts relate to one another.

Study 2 (Section 4.3): Emergent versus planned supplier segmentation in the retail sector

Authors: William Newell and Chris Ellegaard

Status: A previous version of this paper was presented at the 2016 ANZMAC Conference, and won the award for Best Paper in the Business and Industrial Marketing conference track.

This study focuses on the extent to which retail buyers segment their suppliers through a pre-planned approach versus an emergent one. The most dominant conceptualization of the segmentation in the literature process is a normative, descriptive, and pre-planned view, while another focuses on segmentation as more ongoing, informal, and emergent. The factors that affect the choices of managers to organize their supplier base through one approach or another still require clarification. Information is the foundation for segmentation, and this study examines the planned and emergent actions of retail buyers, and links them to the information acquired regarding the supplying firms. Through a qualitative case study of a Danish retailer, this study finds that a degree of both planned and emergent segmentation actions exist for buyers, and presents a model that outlines the observed planned and emergent actions buyers take when segmenting their suppliers. Findings confirmed that while planned actions do take place on a portfolio level through the use of public information, the emergent view surfaces as buyers gain private information through supplier interaction, and then subsequently take actions adapting to suppliers as they go along in their managerial tasks. This paper contributes to the literature on supplier segmentation by clarifying what managers actually do during their segmentation process, rather than focusing on *ex post* rationalisations.

Study 3 (Section 4.4): How buyer roles and critical times affect buyer-supplier exchange episodes

Author: William Newell

Status: This paper has been accepted for publication in Volume 11, Issue 3 of the IMP Journal

This study examines how buyer-supplier episodes are characterised by their dimensions of time and social space, and how these dimensions interact to impact the criticality of an episode. It explores how time and social space create patterns of episodes that lead to buyer-supplier relationship change and continuity. The study examines the social space by the different roles that the buyer assumes among their episodes, while focusing on the concept of critical time to denote the temporal context. This study focuses on the case study of BikeSmart, a small Canadian bicycle retailer, and five of their key suppliers. The primary data are email communications between the buying and supplying firms, along with a two-week field study at the

retailer's location. A total of 2,000 emails are analysed to yield 75 episodes of higher criticality for the analysis. It was found that the criticality of episodes differs depending on the role that the buyer assumes, and whether the episode occurs within a critical time period. The social space affects the type of criticality, while critical times enhance an episode's criticality. This study outlines five different patterns of episodes occurring within critical times and across social spaces that characterise each of the buyer-supplier relationships. This paper is the first to link specific patterns of episode characteristics to the concept of buyer roles and critical time. It also examines episodes using email communication, which is not a common source within the IMP research stream.

Study 4 (Section 4.5): Bilateral trust repair in buyer-supplier relationships – a process study of high-end bicycle trading

Authors: William Newell and Chris Ellegaard

Status: This paper has been submitted to the Journal of Management Studies.

This paper reports on a study of bilateral trust repair processes in buyer-supplier relationships between a small high-end bicycle retailer and five key suppliers. Trust is among most central elements in buyer-supplier relationships, yet the process of trust repair is relatively overlooked in the literature on inter-organizational relationships (IORs), including buyer-supplier relationships. We examine the bilateral trust repair process through e-mail data analysis, coupled with an ethnographic field study of individual breach/repair sequences and longer series of breaches/repairs over time in the five dyads. Overall, we contribute by showing that trust breaches in the IOR context are often repaired interpersonally. Taking responsibility while fixing the breach, or making promises works better than blaming external factors. We also contribute to extant knowledge on the prolonged repair process, for example by illuminating how repeat excuses or apologies lose credibility over time, unless the trustor boundary spanner is forgiving and organizationally unconstrained.

4.2 | Study 1

The effects of goodwill and competence trust on strategic information sharing in buyer-supplier relationships¹

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Abstract

Purpose: The purpose of this research paper is to explore how the choice of buying managers to share or limit the sharing of strategic information with their suppliers relates to the presence or absence of goodwill and competence trust in the buyer-supplier relationship.

Design/Methodology/Approach: An interpretive single case study of a mid-sized retailer was employed. Seventeen semi-structured interviews examining information sharing events were conducted with buying managers, along with the analysis of company documents.

Findings: Goodwill and competence trust have a positive effect on strategic information sharing, yet managers may limit the sharing of specific categories of strategic information regardless of the type of trust perceived by the buyer. The presence or loss of competence trust only can limit certain categories of information sharing when other competitive or institutional forces are present.

Research limitations: This study featured cross-sectional data of a single case from the buyer's perspective. This limits its generalizability, yet provides opportunities to test the findings through longitudinal studies, potentially gathering data from both buyers and suppliers.

Practical implications: Relating which types of information being shared for different forms of trust guides managers' expectations on which type of trust they wish to build for each of their buyer-supplier relationships.

Originality/Value: This study examines the trust and information sharing relationship in more detail. Although supporting a positive relationship, this study suggests that not all forms of trust will lead to increased information sharing in all cases.

¹ This paper is in the second round of review at the Journal of Business & Industrial Marketing

Introduction

The supply management and marketing literatures have long recognized that a firm's ability to compete depends on acquiring and sharing strategic information regarding customer preferences, the competitive market, and channel member activities (Frazier *et al.*, 2009; Myers and Cheung, 2008). Arguably, information sharing is one of the most integral and common elements in the collaboration between firms (Biggemann 2012; Sezen and Yilmaz, 2007). Strategic information may be sensitive, and while sharing it is beneficial for achieving interfirm collaboration, the risks and their mitigation must be considered by the sharing party (Dyer and Chu, 2003; Vazquez-Casielles *et al.*, 2013). Overall, the choice of *what* kind of information to share with *whom* is both a challenge for boundary spanners, and requires further understanding for both theory and practice (Mohr and Sengupta, 2002; Tong and Crosno, 2015).

Given the sensitive nature of strategic information, its sharing requires a certain level of trust between buyers and suppliers (Becerra *et al.*, 2008; Easterby-Smith *et al.*, 2008; Frazier *et al.*, 2009). The literature frequently distinguishes between competence and goodwill trust, and both types are linked to strategic information sharing (Das and Teng, 2001). However, this link still requires some clarification in the literature (Wang *et al.*, 2014). First of all, the concept of information sharing is used to denote a relatively wide range of phenomena, making it often vague and implicit (Frazier *et al.*, 2009; Jonsson and Mattsson, 2013). The same holds true for the discussion of trust in the context of buyer-supplier relationships (Ryu *et al.*, 2007; Seppänen *et al.*, 2007). It is therefore understandable that the link between these concepts is sometimes ambiguous and unclear. The first objective of this study is to examine the choices buying managers make concerning the sharing of strategic information with suppliers. The second is to explore the effects of goodwill and competence trust on these choices further. Research on the trust-information sharing link forms the theoretical foundation for this study, building on Dyer and Chu (2003), who discussed the trust and information sharing link; Becerra *et al.* (2008), who suggested that different types of information are linked to different types of trust; and Frazier *et al.* (2009), who studied conditions that affect retailers' strategic information sharing with suppliers.

This study's research question is: *How does competence and goodwill trust affect strategic information sharing by buying managers relative to their suppliers?* The study employs an interpretive qualitative single case study of a Do-It-Yourself (DIY) retailer and its information exchanges with suppliers. The results show that competence and goodwill trust are related to increased levels of strategic information sharing, while lower levels of competence and goodwill trust will cause a buying manager to actively limit the sharing of strategic information. However, this positive relationship does not occur in all cases. For instance, the results show that some types of strategic information are sometimes withheld, regardless of

the trust present. Moreover, in exchanges with only competence trust, strategic information sharing may be limited due to additional market and institutional forces, and events that erode trust. These findings confirm the positive relationship of trust and information sharing found in the literature (Becerra *et al.*, 2008; Dyer and Chu, 2003), while also proposing several additional contributions. The paper is organized as follows. First, the literature on interfirm information sharing and trust is reviewed, followed by a description of the methodological approach. Next, the findings are discussed, before finally outlining the conclusions and the implications for research on the trust and information sharing link in buyer-seller relationships.

The link between trust and information sharing

Information sharing between buyers and suppliers

Information sharing is the exchange of information between buyers and suppliers regarding end-user needs and preferences, market structures and trends, product and sales information, strategies and finances of partners, and unexpected problems (Selnes and Sallis, 2003). Information sharing is a key relational behavior, leading to reduced contextual uncertainty and information asymmetries between the parties (Dyer and Chu, 2003; Sezen and Yilmaz, 2007). Firms will sometimes seek to acquire information when there is asymmetry to deter exchange partners from behaving opportunistically (Wathne and Heide, 2000). The information considered in this study is explicit, easily codified, and transferable. However, it is also strategic and often highly important for value creation. This makes it risky to share, as it can easily spill over or be transferred to an unwanted party (Becerra *et al.*, 2008). There are several types of information sharing, and these types reflect a more fine-grained description of both the specific content and the strategic value when shared. A frequently used distinction in the literature is between *strategic* information and operational or *tactical* information. Table 1 provides an overview of studies operating with this distinction.

Table 1: Classification of Information & Information Sharing

Authors	Information classification
Egelhoff (1982)	1) Strategic information processing: deals with lower volume and non-routine information to address important problems and solutions. 2) Tactical information processing: deals with product-specific matters, and helps make day-to-day routine operating and administrative decisions.
Hsu <i>et al.</i> (2008)	1) Tactical: purchasing, operations, scheduling and logistics information. 2) Strategic: long-term corporate objectives, marketing and customer information.
Klein and Rai (2009)	1) Operational: deployment of input resources to produce services, such as information about inventory/capacity plans and production schedules. When shared, this information allows partners to optimize input resources globally by streamlining buffers and synchronizing resource allocations 2) Strategic: includes financial metrics on margin structures and costs. When shared, this information enables parties to collaborate on ways to improve economic outcomes and to leverage financial resources for both parties. 3) Strategic/competitive: affects firm competitive positioning and planned actions in the market. When shared, this information enables partners to derive benefits by coordinating sales and marketing initiatives with operational requirements.
Li <i>et al.</i> (2006)	1) Transactional: includes order quantities, prices, sales, product specifications, quality, and delivery specifications. This is a minimal level of sharing, as information may be public and acquired with public search. 2) Operational: includes inventory levels, costs and schedules, production and transportation capacities, lead times, and shipments. This is a partial information sharing case. 3) Strategic: includes point-of-sale information, real-time demand, understanding of market trends, the things customers value most, and product designs. Highest level of sharing, as information is proprietary and sensitive to achieve mutual strategic benefits.
Patnayakuni <i>et al.</i> (2006)	1) Operational: includes the sharing inventory holding information, production and delivery schedules, to improve the overall efficiencies through improved coordination and resource allocation, improve cash flows, reduce cycle time, and enhance asset utilization. 2) Tactical: includes sharing performance metrics associated with task execution and outcomes. It allows buyers and suppliers to develop common forecasts, synchronize production and delivery, coordinate inventory stocking, and provide a clearer picture of bottlenecks in the exchange and production processes (in manufacturing industry). 3) Strategic: includes information that is much more valuable when shared. For example if sales data is not shared, it can create distortions in production demand, therefore by sharing information, this distortion decreases.
Samaddar <i>et al.</i> (2006)	1) Transactional: lowest level of sharing, including prices, order quantities and other electronic interchange. No partner-level advantage is gained from information sharing, since the logistical process improvements can be accomplished by each firm acting separately. 2) Operational: transfer of data which is much more valuable for the receiving firm to utilize due to special competences. The sharing may result in operational efficiencies for both parties. 3) Strategic: information can provide operational benefits for the donating firm, and strategic benefits to the receiving firm. The information is not of much value to donating firm unless shared. 4) Strategic-Competitive: the benefits of information are still minimal if not shared, but can result in both strategic and competitive benefits for the receiving firm.

According to Mentzer *et al.*, (2000) “shared information varies from strategic to tactical in nature and from information about logistics activities to general market and customer information” (pg. 559). The distinction between the two represents a difference in the scope of the information being shared (Samaddar *et al.*, 2006). Strategic information differs conceptually from tactical information, as it is more sensitive and confidential, but also more valuable when shared, and may improve the competitiveness of the supply chain as a whole (Klein and Rai, 2009; Li *et al.*, 2006; Patnayakuni *et al.*, 2006). Strategic information also differs in having implications for a firm’s long-term planning, while tactical has a short-term focus (Frazier *et al.*, 2009). Strategic information is valuable for both buyers and sellers as it has the potential to enhance a firm’s competitive advantage (Day, 1994). According to Hsu *et al.* (2008), tactical information includes purchasing, operations scheduling, and logistics-related information, while strategic information includes long-term corporate objectives, technical product specifications, marketing and customer information, and information regarding a competitor’s sales for a particular retailer. Tactical information is not as valuable when shared, but is focused on reducing process or logistics costs when implemented by each party separately (Samaddar *et al.*, 2006)..

Trust

Trust has been researched extensively in the field of marketing, and is a central concept in buyer-supplier relationships (Morgan and Hunt, 1994). Trust allows firms to capture the “*hearts and minds*” of channel partners, which motivates them to “*go that extra mile*” when it is truly needed (Kumar, 1996, p. 97). Trust generally has been shown to increase joint value creation between buyer and seller (Ryssel *et al.*, 2004). Trust is also important when information sharing is of high value, and where opportunism must simultaneously be avoided (Dyer and Chu, 2003). Buying managers try to reduce partner opportunism by signaling their own trustworthiness, however, signaling and assessing trust is difficult because what makes one party trustworthy is not similar across dissimilar tasks (Kumar, 1996; Mayer *et al.*, 1995).

One of the most widespread conceptualizations of trust in the marketing literature includes a *competence* component and a *goodwill* component (Blomqvist, 1997; Das and Teng, 2001; Ness, 2009; Pulles *et al.*, 2014; Seppänen *et al.*, 2007), corresponding to the distinction between credibility and benevolence, respectively (Anderson and Narus, 1990; Doney and Cannon, 1997). Blomqvist's (1997, p. 282) proposed definition of trust is “*an actor's expectation of the other party's competence and goodwill*”. *Competence* trust provides the trustor with confidence that tasks will be accomplished because of the reliability of the resources and capabilities of an exchange partner (Das and Teng, 2001; Wu, 2008). Suppliers can signal credibility by making transaction-specific investments, such as training distributor employees, developing effective in-store displays, and featuring marketing in customer-specific brochures, which increase the supplier’s competence trustworthiness (Ganesan, 1994). This way, suppliers create the perception that

they have the ability to perform effectively in the exchange (Ireland and Webb, 2007). If suppliers or retailers lack resources to fulfill their commitments, competence trust is negatively affected (Ireland and Webb, 2007).

Goodwill trust refers to one's "good faith, good intentions, and integrity" (Das and Teng, 2001, p. 256). Goodwill trust also includes perceived openness, and the belief in one party's concern for the other party (Wu, 2008). Goodwill trust reduces costs of negotiations between supply chain partners, since both parties will be confident that the other is acting in the interest of the partnership, and not misrepresenting its intentions (Dyer and Chu, 2003). The parties can therefore make quick decisions based on heuristics, without calculative considerations of underlying risks and vulnerabilities (Uzzi, 1997). Goodwill trust also increases flexibility in daily transactions, or when problems arise that require adaptation from the other party (Uzzi, 1997). Goodwill trust allows these adaptations to occur during unforeseen circumstances when a firm goes above and beyond their contractual obligations (Blois, 1999). Goodwill trust is therefore distinct from dependable habits.

The trust–information sharing link

In a dynamic view of trust and information sharing, Dyer and Chu (2003) found that information sharing and trust are both outcomes and antecedents of the other. Anderson and Narus (1990) claimed that relationship development is an iterative process requiring both the gradual building of trust and communication over a period of time. Trust causes better communication, which leads to more trust. This belief is echoed by Dwyer *et al.* (1987), who refer to the "efficacy" of information sharing in relationship development. Starting from trust, the literature has established that trust leads to improved information exchange on a general level (Uzzi, 1997).

Turning to the distinction between competence and goodwill trust, when it comes to information sharing with suppliers, buyers are generally concerned with two things. The first is whether the supplier has the ability to use the information to create added value and improve the overall competitiveness of the partnership (Ellström, 2015; Wu, 2008). The second is whether the supplier will act opportunistically by using the information against the buyer to squeeze margins, or leak the information to competing firms (Dyer and Chu, 2003). This relates to the need for *competence* and *goodwill* trust, respectively. There must be a minimum amount of competence trust to repeat interactions, and thus share information, and as the relationship develops, goodwill trust may form through further repeated interactions (Ireland and Webb, 2007). The link between *competence trust* and information sharing has been examined in the industrial marketing literature. Actors in firms share information with the hopes that it will lead to concrete improvements in their overall competitiveness (Wu, 2008; Yigitbasioglu, 2010). Sharing strategic information is costly, and therefore if the sharer of information does not trust that the receiver has

the competence to improve the competitiveness, then strategic information sharing is less likely to occur (Samaddar *et al.*, 2006; Uzzi and Lancaster, 2003). For example, demonstrating one's competence through joint planning and collaboration, problem solving, and performance measurement is closely related to information sharing (Nyaga *et al.*, 2010). Furthermore, trust becomes an enabler of information exchange regarding issues such as the management of the product assortment for the buyer, both requiring a certain level of competence (Ellström, 2015). This leads to the development of the commercial relationship through further interactions and increased information sharing. With regards to *goodwill trust*, strategic information sharing is facilitated when the sender is confident that the receiver of information will not act opportunistically (Dyer and Chu, 2003; Zaheer *et al.*, 1998). When a buyer has goodwill trust in a seller, they believe the seller to be honest and benevolent, and are reassured that the seller will not take actions to misuse the information against the buyer's interests (Frazier *et al.*, 2009; Morgan and Hunt, 1994). Such actions include a supplier using sales information to squeeze the margin of a retailer, or by sharing process innovations, or strategic consumer information to other competing firms (Dyer and Chu, 2003). Uzzi (1997) observed that information sharing in trusting, embedded relationships was more detailed and fine-grained, yet also more tacit and holistic. Information is less easily transferred in arm's length relationships, and senders in embedded relationships would share information without considering any potential risk of opportunism from the receiver. Goodwill trust also facilitates information sharing by negating coercive power, lowering the value of non-coercive power, and giving more incentives to longer term orientations of relationships (Ireland and Webb, 2007; Pulles *et al.*, 2014).

The uncertainties involved in sharing strategic information represent a risk to the trustor, and only through an acceptable level of perceived trust will the trustor choose to share it (Mayer *et al.*, 1995; Patnayakuni *et al.*, 2006). A perception of inadequate goodwill trust for information sharing may depend on the type of information being shared or distorted (Frazier *et al.*, 2009; Becerra *et al.*, 2008). Sharing sensitive, explicit information is risky because this knowledge can be transferred easily and used against the sender, whereas tacit knowledge takes considerable time and closer interaction to be absorbed by the receiver (Becerra *et al.*, 2008). The perception of is also influenced by the specific trustor's propensity to trust, which reinforces its subjective nature (Mayer *et al.*, 1995). Similarly, actively limiting information sharing may occur if relationships are perceived as short term and opportunistic. In such case information asymmetry can be used as a source of rents (Patnayakuni *et al.*, 2006). Previous research has also shown that breaches in trust by the trustee will erode the trust of the trustor, who may withhold information that they would have otherwise shared, given the previously perceived competence of the trustee (Janowicz-Panjaitan and Krishnan, 2009). In terms of information sharing, one must consider this subtle yet important difference between trust and information sharing that has yet to be established, or cases where distrust, and

withholding information has developed through breaches of trust (Janowicz-Panjaitan and Krishnan, 2009; Sitkin and Roth, 1993)

Methodology

A qualitative embedded single case study (Yin, 2009) of HomeCo, a Danish Do-It-Yourself (DIY) retail chain, was carried out to explore the trust-information sharing link. Although the literature has provided ample evidence on the trust-information link, the effects of different types of trust specifically on strategic information sharing has received much less attention in research. Furthermore, our research design allows us to identify variables that affect these causal connections, thereby developing a richer model of trust and information sharing. Furthermore, we investigate information sharing at the individual manager level, unlike the majority of prior studies, which look at these two key constructs at the organizational level (Zaheer *et al.*, 1998). Given that we break relatively new ground with this study, the single case study was deemed a suitable choice. Case studies are useful for further development of existing theories (Eisenhardt, 1989; Flyvbjerg, 2006). Specifically, the goal of this study was to develop testable propositions from rich empirical data, which is one of the commonly cited strengths of the case study approach (Eisenhardt and Graebner, 2007). The qualitative case study approach was also deemed appropriate because we were attempting to uncover the more detailed nuances of a complex thinking-doing process (Woodside and Wilson, 2003). Trust and information sharing were examined from the perspective of the individual buying manager, as the trustor and sharer of information. The unit of analysis was the exchange between individual HomeCo buying managers and their suppliers represented by sales managers. As a central retail chain within the DIY building sector, HomeCo is an ideal single case setting because it offers optimum opportunity for learning about the constructs of interest (Stake, 2008). Boundary spanning managers, each responsible for a subset of HomeCo's supplier portfolio, must continuously consider both trust levels and the potential sharing of non-tacit strategic information with their suppliers.

An initial meeting with a manager in a key position confirmed that HomeCo supported the study. Through this contact person a range of boundary spanning managers were identified for interviewing. In their roles as key informants (John and Reve, 1982) and responsible for the specific exchanges with their suppliers, the purchasing managers were knowledgeable of all aspects of the exchanges, increasing the validity of the findings (Ellram, 1996). These managers were the main actors interacting with the supplier representatives and judging whether they could be trusted, leading to information sharing decisions. A few managers declined to participate, arguing that they were either new in their positions to provide adequate information, or had time constraints. Seventeen interviews were conducted with an average length of 55 minutes (see table 2). All but one of the interviews were conducted at HomeCo's head office. Each interview was transcribed verbatim for subsequent analysis. A pilot interview was conducted to develop a

more focused interview guide, based on the factors that affect inter-firm knowledge transfer (Easterby-Smith *et al.*, 2008). After two further interviews, initial results were summarized and discussed at a university research seminar. The interview guide was further adjusted, and implemented in the remaining interviews. This process of development focused on how concepts and their connections should be uncovered, in addition to the format of the interview and ordering of the questions. During interviews, informants were asked to organize and sort their supplier portfolio on a piece of paper. This method made it easier for the respondents to relate specific information sharing decisions to trust in relation to specific suppliers. They were asked to discuss the nature of each supplier relationship, including trust, as well as the information exchanged with the listed suppliers. This was an iterative process between asking relational questions such as: “*Do you trust (Supplier A)?*”, and focusing on specific events such as asking: “*Describe a typical meeting with (Supplier A), and what kind of information you share?*” Participants were asked to elaborate on unexpected and interesting points during the interviews.

Table 2: Interview Characteristics

Interview	Participant	Product Category	Length (minutes)	Date
A	Product Manager	Paint	48	16-10-2015
B	Product Manager	Tools & Equipment	63	16-10-2015
C	Product Manager	Garden	54	31-03-2016
D	Product Manager	Building Materials	43	07-10-2015
E	Product Manager	Plumbing & Sanitation	53	16-10-2015
F	Product Manager	Electronics	58	07-10-2015
G	Product Manager	Flooring & Concrete	64	02-10-2015
H	Group Manager	Light Products	57	11-10-2015
I	Buying Coordinator	Building Materials	49	10-11-2015
J	Buying Coordinator	Flooring & Concrete	66	12-11-2015
K	Buying Coordinator	Building Materials	50	25-11-2015
L	Buying Coordinator	Garden	50	26-01-2016
M	Buying Coordinator	Flooring & Concrete	50	02-02-2016
N	Buying Coordinator	Plumbing & Sanitation	96	11-09-2015
O			60	01-06-2016
P	Marketing Coordinator	All	25	16-10-2015
Q	Sourcing Office Manager	Chinese Suppliers	50 - telephone	20-05-2016

An interpretive approach was followed to explore the complex nature of the buyer-supplier relationships (Gummesson, 2003). Such an approach provides a rich account of a phenomenon, by discovering vibrant stories and revealing subtle nuances, explanations, and interpretations of the events and concepts of interest (Woodside *et al.*, 2005; Seppänen *et al.*, 2007). Data were also collected in the form of documents, including interfirm presentation material, supplier satisfaction surveys, and supplier management training materials. Through these additional data sources, a deeper understanding of the context was developed

(Woodside and Wilson, 2003), which allowed triangulation of the findings (Yin, 2009). Combining explanations and interpretations from multiple data sources added to the plausibility of interpretations of the focal topic, increasing the validity of the study (Yin, 2009; Stake, 2008).

Interview data were first coded to identify events where information was shared or withheld by interviewees. These events were plotted into a display for each manager, and linked to a specific supplier or group of suppliers, depending on the nature of the event. This was followed by writing a small interpretive description, or what Denzin (2002) refers to as an interpretive bracket, for each event. Each bracket highlighted the type of trust present (or lacking), the type of information sharing occurring, the supplier or type of supplier, and the possible general information sharing strategy of the buyer. One researcher carried out the main analysis and another researcher subsequently checked the interpretations. The two researchers also discussed the interpretations continuously at a series of meetings running parallel to the analysis, minimizing interpretive bias and gradually sharpening the interpretations and eventually the propositions. Trust was operationalized by the goodwill and competence factors outlined in the literature (Das and Teng, 2001; Ganesan, 1994). Instances of strategic information sharing were coded based on the categorization of Hsu *et al.* (2008). The specific categories of strategic information were derived inductively from the data. The information sharing events were then aggregated and sorted based on the type of trust present and the type of information sharing (see table 3). Finally, further inductive thematic analysis uncovered the stories of the buying managers containing rich details that supported the conditions and motivations of strategic information sharing for each category of trust present (i.e. little to no trust, competence trust only, goodwill and competence trust) (Braun and Clarke, 2006).

HomeCo

The case firm is a Danish medium-sized DIY retail chain with over 40 locations, and is a subsidiary of a larger group of related companies. It operates only in Denmark, with sister companies in other Northern European countries operating under a different name. DIY retailers focus on home building materials, bathroom and kitchen fixtures, paint, and garden products. The local DIY market is competitive, with several large players, including traditional brick and mortar as well as online retailers. HomeCo has a large number of suppliers, along with a range of products under several private label brands. HomeCo has established many specialized supplier relationships on a national basis, but also has group-wide agreements with its sister companies across several countries with larger suppliers. HomeCo's purchasing department consists of three levels of management. All products are divided between the "Light" and "Heavy" product groups, each of these assigned to a manager. Products in the "Heavy" group include flooring & concrete, construction materials, plumbing and sanitation, and garden. Products in the "Light" group include home and leisure, paint, tools, and electronics. Each product group is further divided into

four subsequent product categories, each with its own Product Manager. Product Managers are responsible for the operation of the entire supply chain: from procurement to sales on the shop floor. They also have a number of Buying Coordinators to conduct daily operations. The Product Managers therefore have considerable control in managing their supplier relationships, including how they choose to share strategic information with suppliers.

Findings

Table 3 provides an overview of all identified instances of deliberate information sharing or withholding of information. Letters refer to specific interviewees, choosing to share (or limit) a particular category of information with a supplier with a specific trust profile. In a few identified examples, the buying managers chose to share all information with specific suppliers or limit the sharing of all information with specific suppliers (upper rows in both table sections). *Trust profiles* refer to relationships containing different perceptions of trust towards a particular supplier, specifically *low trust*, *high competence trust*, and *high competence and goodwill trust*. While the consideration of both high and low levels of competence and goodwill trust suggests four potential trust profiles, there were very few instances of information sharing found in cases of low competence trust and high goodwill trust, as also suggested in the literature (Akrouit *et al.*, 2016; Ganesan, 1994; Şengün, 2010). Therefore this trust profile was not included in the figure.

Table 3: Summary of strategic information sharing and trust*

		Trust Profile		
	<u>Strategic information sharing type</u>	<u>Higher levels of competence & goodwill</u>	<u>Higher levels of competence only</u>	<u>Low to no presence of goodwill or competence</u>
		Encourage strategic information sharing	All possible strategic information	<i>I, J, N, K</i>
Consumer and market information exchange	<i>F, G, H</i>		<i>A, B, D, E, F, G, I, M, N</i>	<i>I</i>
Production processes and cost reduction ideas	<i>B, I, J, O</i>		<i>A, B, F, E, G, H, K</i>	<i>C, Q</i>
Product margin information	<i>E, O</i>		<i>C, O</i>	
Joint product assortment plans	<i>A, E</i>		<i>A, C, E, F, G, Q</i>	
Product promotion planning	<i>A, B, D, E, F, G, I, J, L, M, O</i>		<i>C, J, K, L, M, Q</i>	
NPD and exclusive product discussions	<i>B, G</i>		<i>B</i>	
Rival supplier activities and performance	<i>B, F, L, M</i>		<i>L</i>	
Corporate long term goals	<i>C, H</i>		<i>E, N</i>	<i>D</i>
Supplier in-store merchandising	<i>E, J, N</i>		<i>E, G, J, L, N</i>	
Total:	37		44	6
Limit strategic information sharing	Limit all information exchange to tactical		<i>O, C, I, J</i>	<i>A, C, E, F, G, H, J, L, N, O, Q</i>
	Consumer and market information exchange	<i>J, P</i>	<i>P</i>	<i>P</i>
	Production processes and cost reduction ideas		<i>A, C, N</i>	<i>G</i>
	Profit margin sharing		<i>A, E</i>	
	Joint assortment planning	<i>N</i>	<i>E, Q</i>	
	Product promotion planning		<i>Q</i>	<i>K, O</i>
	NPD and exclusive product discussions		<i>Q</i>	<i>B, N</i>
	Rival supplier activities and performance	<i>D, J, M</i>	<i>G, Q</i>	<i>H</i>
	Corporate long term goal sharing		<i>A, G, H, M, N</i>	<i>A, J</i>
	Supplier in-store merchandising		<i>A, M</i>	
	Total:	10	30	20

* Letters refer to an interview participant making clear link of trust to information sharing or limiting of sharing. Letters correspond to the interviews as labeled in Table 2.

Below, propositions are suggested based on the findings.

Effects of trust on information sharing

The results show that deliberate strategic information sharing varies with the level of competence and goodwill trust as perceived by the buying manager. Table 3 suggests that information exchange is rare when overall trust is low. More nuanced findings characterize exchanges with high competence trust. Obviously, the lack of goodwill trust means that buying managers are not always willing to share strategic information because they fear supplier opportunism, as demonstrated by the following quote:

“I earn good money on secondary items, and if a supplier knows that you earn good money, then they would have a tendency to try to increase prices... So that’s why I’ll keep them in the dark. Unless they come to me and say - okay we’ll give you some extra benefit” – Manager A

However, this quote also shows an exception. Manager A will actually take the chance and share information when he perceives a clear benefit from doing so. This situation is relatively frequent, as indicated by Table 3, which shows a remarkable increase in strategic information exchange by managers when they have trust in the competence of suppliers. This also appears to be the most common type of exchange between HomeCo and their suppliers. Strategic information sharing is mainly driven by perceived possibilities for calculated benefits based on the information shared, for example product improvements or financial rewards, as demonstrated in the following quotes:

“With (Supplier name) we mostly share our sales numbers, and also (sales) by store because they have some merchandising people, and I want them to go and look at some of our stores where we didn’t perform as well as last month. Then we share this information so they can act on it.” - Manager C

“We also give them (Supplier) the total overview so they can see if their products are over or under the average in HomeCo. But it is not specified in (Supplier name) products or (other supplier) products... If we have some items that we can’t sell, we have to do something. Then they have people who go around to our stores, and make the products more presentable so we can sell them. It’s a help to us that we send them the stock situation.” - Manager L

Thus, it appears that there has to be an underlying measurable benefit before strategic information is shared by buying managers in competence trust based exchanges. This represents a more calculated information sharing process, where benefits and costs of information sharing are carefully considered. If the suppliers’ competence is appropriate, or aligned for sharing particular strategic information to the buying manager’s benefit, then information might be shared. This is summarized in the following proposition:

P1: High established competence trust is only associated with strategic information sharing by buying managers when they perceive immediate benefits from such sharing.

Progressing to the most advanced trust level, the data showed a similarly high level of information exchange instances when supplier relationships are characterized by goodwill trust. In these exchanges, suppliers typically work closely with HomeCo, which results in a process of high strategic information sharing:

“We have good relations with them (Supplier name). They keep staff on during the weekends so our stores can call them, they visit our stores almost weekly, and they solve all the issues they meet in the store. We use them for a lot of internal issues. If we are planning a new store and we need to set up the product areas the right way relative to each other, we call (Supplier name) to do that. Even though it may not be their products, we know that they can set them up to make the highest turnover” – Manager N

In this exchange, the manager shares considerable strategic information, including consumer/market information, corporate long-term goals, and in-store merchandising information, and the supplier goes above and beyond “normal” tasks and obligations by also doing the merchandising for competing suppliers. This leads to the second proposition of this study:

P2: High competence and goodwill trust in suppliers have a positive effect on strategic information sharing by buying managers.

The data also showed that managers with high goodwill and/or competence trust in suppliers are selective and differentiated when they share information. Nine different categories of strategic information were identified, which were deliberately differentiated by the buying managers in terms of what information they chose to share in specific supplier exchanges characterized by certain levels of trust. Hence, the willingness of buying managers to share strategic information depends not just on trust, but also on the category of information being shared. Manager A for example, shares consumer market, process, and product assortment information with some trusted suppliers, but not the other six categories of strategic information. In addition, some information, such as long-term goals, is rarely shared by the buying managers at all, whereas other categories, such as market information are shared relatively frequently.

“With (largest supplier in the category) I would share information about turnover and earnings. But I would keep them in the dark about leaflets etc. - at what prices I was going out. I would also keep them in the dark about my long-term goals. I’ll tell them short term: “this is what I need to do.” For example, I need to grow (the category) 30%... But they don’t know how the 30% is put together. So I’m going to grow 60% on the private label part. They don’t know that. They know that I have to grow 30%, but it’s probably only 10%, which will come from the branded items, the rest will have to come from private label.” – Manager A

P3: Buying managers’ willingness to share information in exchanges of high competence and goodwill trust depends on a) the category of strategic information, and b) the individual product manager.

Active limiting of information exchange

Buying managers also sometimes choose not to share strategic information with their suppliers. Sometimes this deliberate choice happens regardless of the level of trust in suppliers. Table 3 shows several instances of managers withholding information, even in supplier exchanges with high goodwill trust (left row in lower section). Other factors than trust, such as organizational policies and the attitude of the buying managers seem to shape these choices. For example, HomeCo had organizational policies on withholding information regarding their private label sales and margin information. This information is never revealed to a supplier, regardless of the type and level of trust perceived. There were also certain common attitudes among managers reluctant to share information that had a similar effect. Several informants answered “no”, when asked if they share sales data with suppliers about an entire product category. This suggests a certain “unwritten rule” regarding which information to withhold. Some even mentioned that withholding information is simply a “common sense” practice:

“I think it’s just common sense. We would really not want our suppliers to share HomeCo’s stuff to (Competing retailer), so I think it goes the other way around ... we wouldn’t share our (Supplier 1) sales to (Supplier 2) and vice versa.” – Manager H

“Rarely does a supplier give us that kind of information (sales to other retailers). It’s also a trust thing that... well we can trust the supplier not to tell our numbers to a competitor, and we would love to hear what our competitors are doing and selling, but we wouldn’t want them to give our numbers as well.” – Manager J

I don’t ask questions I know they won’t answer... First I could ask “how is the business?”... So in that way I can get some information about Product A ... I can ask “why do you think HomeCo has developed that way on this product”? So I can get some information, but they never give me our competitors’ figures. I think it’s not serious to ask.” - Manager D

Interestingly, in some instances the managers may believe that the act of sharing this type of strategic information would signal a lack of goodwill based trustworthiness. Rather than risk this, the buying managers do not share this information.

P4: Some categories of strategic information are sometimes deliberately withheld by managers, regardless of the level of goodwill and competence trust in an exchange.

In other instances, the deliberate withholding of information happens despite significant trust levels. Table 3 shows a remarkably high number of information withholding instances, despite trusting the competence of a given supplier. One cause of this behavior is that buying managers believe that the given exchange needs to be competitive with a focus on price. Sharing of strategic information for the development of the exchange and possibly developing a strong relationship to certain suppliers goes against their wishes for competitive price levels, even if suppliers would like to share information and develop the exchange:

“If you are a sales guy, you will try to put the conversations to everything else than the price, because that is actually your job. Try to talk about something other than the price... talk about the needs, talk about how you can save money in the long term, buying better quality. But it’s easy to compare (suppliers)... and, it’s much better to say: we know the rules, we are setting the rules, we are determining our needs. When we are making an e-auction, then it is easy to compare, we can compare in two seconds, and then we have it (the price).” – Manager E

“Some suppliers invest a lot of money in creating good relationships, taking the product manager golfing and to Michelin restaurants. So the product manager feels obliged to buy the products... If that obligation is met with: “we have a good relationship, so of course I’m inviting you to this e-auction”, then the relationship is still there but it doesn’t cost us anything. We have a good relationship, and we have the right price. This is where the relationship with the supplier and e-sourcing should go hand in hand. But this is not always possible. I did an e-auction last week where my usual supplier refused to participate. He thought that this was not in the nature of our relationship” - Manager O

Sometimes, critical events in the exchange mean that strong relationships lose their goodwill trust, causing managers to close down information sharing, despite high competence trust:

“It’s a well-known brand. Actually, they were up here (partnership), had a good strategy, great sales support, delivery on time, right amount, good prices, everything. So I asked them: “Can you ensure me that I have the right pricing now, that you are not selling at a lower price to my competitors” He said: “Yes, I assure you” Then I find out coincidentally that his prices for a certain competitor were lower. So I confronted them with this, and they didn’t care and didn’t want to do anything about it, and that is a trust issue” – Manager B

P5: A focus on a) competitive and pricing pressures within certain supplier exchanges, or b) recent good-will trust breaches causes buying managers to withhold strategic information from suppliers, despite trusting their competence.

Finally, without goodwill and competence trust, the likelihood of withholding information is further increased by the managers (right column, lower section of table 3):

“We are not working closely with these suppliers in the same way as with a branded producer in Europe, because these suppliers are only producing; they are not developing their marketing. That means that we don’t have the close cooperation with them on how to deliver marketing material, how to make the customers buy more. It’s just packaging, reducing costs, delivery on time, and quality control. If they (HomeCo Product Managers s) believe they should be able to come up with the same things as the European suppliers then they will be disappointed because they will in many cases never be able to come up with suggestion on how to put the products on the shelves and things like that.” – Manager Q

“They (the wholesalers) are trying to tell us all the time that they will pay us an extra fee if we are buying the whole range from them. But if I’m a saying “yeah, I will have that marketing fee and I will promise you to buy the whole range”, then I cannot compete, I cannot discuss prices with him for a whole year. That’s not what I want. So I’m saying: “I will not talk communication with you, I will only talk about optimizing systems, logistics matters, and I am wondering if you are the right supplier. I will challenge you.”” – Manager E

This may also happen when suppliers, who were trusted earlier, violate competence trust as in the following quote:

“We get these monthly letters from our economy department... messages on suppliers that haven’t performed well. Whether they don’t deliver on time, or the correct amount, and (supplier name) was on that list a lot. It wasn’t just a small amount, it was 35 thousand EUR (in orders not delivered)... He definitely didn’t agree. I once got an email that long (holds up her hands) that he did the math himself. And I was just like “okay the basic math is we look at what we ordered and what they delivered. That doesn’t match, done!” ... We gave him a chance and he misused it - he was actually doing worse. If it had kept the same level (of undelivered orders) we wouldn’t have thought that much about it. But going from 5 to 35 (thousand EUR), that was unacceptable.”- Manager M

With this supplier, competence trust dropped to a low point, and information sharing was reduced to only basic coordination information.

P6: Low competence trust resulting from a) consistent supplier competence deficiencies and b) competence trust breaching events, cause managers to limit the sharing of strategic information.

Discussion

This study contributes to extant research on the connection between information sharing and trust in buyer-supplier exchanges by unfolding the trust-information linkage and offering a series of theory-extending propositions. At the most basic level it offers support for the positive association between trust and information sharing, which is already well-established in research on buyer-supplier relationships (Dyer and Chu, 2003; Zaheer *et al.*, 1998). The study contributes by uncovering several new phenomena surrounding the trust-information sharing connection in considering goodwill and competence trust separately, and their effects on strategic information sharing in particular. Moreover, it also contributes by showing that the trust-information sharing link is conditioned by various factors, for instance the type of strategic information shared. Hence, under different types of conditions, even high levels of trust does not necessarily lead to information sharing. Finally, we contribute by documenting the deliberate managerial choice of withholding information.

First, the differentiated effects of both goodwill and competence trust on strategic information sharing are documented. Extant research tends to emphasize goodwill trust as a precondition for the sharing of strategic information, which is associated with high risk of opportunistic behavior by the other party (Dyer and Chu, 2003; Ireland and Web, 2007; Uzzi, 1997). Although the findings show that this is frequently the case, they also suggest that buying managers may, in some instances, share strategic information despite “only” trusting in the competence of the supplier. We find that competence trust alone can lead to strategic information sharing. This is driven by the main underlying goal of information sharing, which is to

enhance the competitiveness of both buying and supplying firms (Ryssel *et al.*, 2004; Wu, 2008). Without this condition, information sharing is less likely to take place. Moreover,, the findings also show that even high levels of goodwill trust may not be enough to trigger strategic information sharing in all cases, which suggests an upper threshold in what trust can achieve as suggested by Ryu *et al.*, (2007). This is emphasized in our study as buying managers sometimes withhold certain types of information from goodwill-trusted suppliers, specifically when organizational policies prevent it, competitive forces do not justify it, or their own managerial attitude or conviction works against strategic information sharing. The same holds true for breaches of goodwill trust. Even with adequate levels of competence trust, a violation (versus a lack of) goodwill trust can also potentially “taint” a relationship and limit information sharing altogether. This adds to the conceptual view of the fragile nature of interfirm trust, and the detrimental effects of trust breaches (Blois, 1999).

Second, the findings contribute by showing that buying managers are frequently differentiated in terms of selecting specifically what categories of information they share with specific suppliers. Extant research operates with different overall distinctions, such as tactical versus strategic or explicit versus implicit, and also sometimes connect these with trust (Becerra *et al.*, 2008; Myers and Cheung, 2008). A few earlier studies also noted that boundary spanners differentiate among their business exchange partners in terms of what they entrust them with (Blois, 1999; Kumar, 1996). Others highlight the fact that an individual’s trustor’s propensity or discretion to trust is a primary influencing factor for risk taking actions such as information sharing (Mayer *et al.*, 1995). This study contributes to this research by documenting managers’ distinction between nine different categories of strategic information and specifically choosing to share these with suppliers displaying the three trust profiles. It also shows that even within the same organization, the categories of information sharing also vary across individual managers. This suggests that although trust and information sharing might be positively related, individual perceptions and propensities to trust vary. This further highlights the complexities of the trust-information sharing link.

Finally, a contribution is made by shedding light on the phenomenon of deliberate withholding of information, which appears frequently in the data. Limiting information exchange is a deliberate rationed tactic by buying managers, which is frequently connected to perceived trust levels. It therefore goes beyond the mere observation of non-sharing of information, and shows that buying managers may be as limiting in their deliberate behavior sets as they are sharing (Mohr and Sengupta, 2002). This is a behavior reminiscent of what has been described as selective revealing (Alexy *et al.*, 2013), or deliberate information asymmetry (Tong and Crosno, 2015). Buyers may withhold information on purpose in order to gain an advantage by maintaining a degree of information asymmetry with the buyers, even if they perceive high levels of competence trust in the supplier. This supports the consideration of the degree of

information asymmetry as a key component of buyer-supplier relationships which can benefit one party alongside the presence of perceived trust by the sharer or withholder of the information. Overall, the study provides a picture of the trust-information sharing linkage as more fragmented and complex than that portrayed in extant research and thereby makes an attempt at further theory development in this research area.

Managerial Implications

Managerial implications can be considered from both the trustor and the trustee perspective. The managerial aim of both parties must be to increase their access to strategic information provided by the other party, given different types of constraints, such as other business concerns (e.g. possible information spillover) or top management information sharing policies. From the trustee perspective (in this case the supplier's boundary spanner) the findings show that strategic information sharing may, to a large extent, be at the individual boundary spanners discretion. Despite high levels of one or the other type of trust, the purchasing manager may share only some types of strategic information or generally be reluctant to share any type of strategic information due to competitive priorities. Trustees cannot simply associate a trusting relationship with free flowing strategic information from the trustor. Instead they must have a thorough understanding of the trustor's attitude and priorities in order to benefit from being a trusted partner. However, with high levels of information sharing autonomy of the trustor boundary spanner, the trustee is also presented with valuable opportunities for influencing the trustor into sharing valuable information. A final advice for trustees is to recognize the potential of competence trust. Our findings showed many instances of strategic information sharing in competence trust exchanges. The more demanding and subtle goodwill trust may not be necessary to achieve in many customer relations. Competence trust, which is easier to build and maintain, may be adequate for gaining strategic information from trustors, specifically if they perceive an immediate benefit from such information sharing. Trustees could therefore look for and recognize such interactive situations or even introduce or suggest such trustor benefits into the exchange themselves.

From the trustor perspective, managerial advice concerns organizational level needs for managing strategic information sharing with suppliers. The observed high level of information sharing autonomy among boundary spanners could point to a need for increased planning of overall efforts at utilizing supplier relationships. For example, purchasers may sometimes miss important opportunities for developing supplier relationships for increased value in the longer term because short term competitive priorities of the individual purchaser gets in the way. A purchasing organization level portfolio perspective on supplier relationships, including trust levels, could increase the buying organization's ability to recognize opportunities and use information strategically for increased value creation.

Conclusion and Future Research

This research has attempted to develop new theory on the link between two key trust types and strategic information sharing. We have investigated this link at the level of individual boundary spanners in a retail purchasing organization relative to suppliers. Specifically, findings show that high levels of goodwill and competence trust may not necessarily lead to information sharing and managers may also decide to withhold information. This suggests that other context variables forces are also important to consider and we illuminate several of these in the present study. We also show that the type of strategic information matters – boundary spanners may share some types of information and not other types, despite high levels of trust. The study has important implications for managers that wish to use information strategically in their keys relationships to increase future value creation potential.

The trust-information sharing link deserves additional future research efforts. First, as a single case study, the generalizability of the findings are limited to the focal firm context. Future research should therefore test the propositions quantitatively in a broader population of firms and industries. Second, future studies could collect richer longitudinal data on the development of trust and information exchange in a smaller number of individual buyer-seller relationships. Unlike this study, which only provided insights into perceived trust and the following information exchange decision, longitudinal data could illuminate the cyclical development of trust-information exchange, starting with some level of trust, increasing the degree of information exchange and associated risk taking, which then again provides the grounds for higher levels of trust. This way, longitudinal data could create knowledge on the process of trust development, investigating the key events taking the buyer-seller relationship from early to more advanced collaborative stages. Reversely, events that decrease the levels of trust, leading to a deterioration of information exchange, are also frequently occurring in buyer-supplier exchanges and could need increased research attention. Dyadic data could be collected in order to examine information exchange action-reaction and the mutuality of trust development. Third, we suggest that the trust-information exchange link should be studied at both the individual and organizational levels of analysis and more importantly how these levels interact. Information exchange mainly takes place at the interpersonal boundary spanner level, but is at least to some extent constrained or motivated by factors at the organizational level, such as purchasing strategy, KPIs, organizational structures or corporate policies. Conversely, key communication decisions at the boundary spanner level may constrain strategic options at the organizational level. Some research has looked into trust at multiple levels, but future research could expand this and also incorporate information exchange. Finally, future studies into the precise nature of information exchange could make use of alternative types of data collection techniques such as direct observations of buyer-seller interactions or studies of email communication. These methodological

extensions would produce more precise insights on information exchange. Combining these methods with more conventional methods could generate new valuable insights into the trust-information exchange link.

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4.3 | Study 2

Emergent versus planned supplier segmentation in the retail sector¹

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Abstract

This study focuses on the extent to which the supplier segmentation process for retailer buyers takes a planned approach versus an emergent one. The most dominant conceptualization of the segmentation process is a normative, descriptive, and pre-planned view, while another focuses on segmentation as more ongoing, informal, and emergent. The question of how and when both of these views affect a buyer's choice of employing one or the other still requires clarification. Information is the foundation for segmentation, and this study examines the planned and emergent actions of retail buyers, and links them to the information acquired regarding the supplying firms. Through a qualitative case study of a Danish retailer, this study finds that a degree of both planned and emergent segmentation actions exist for buyers, and presents a model that outlines the observed planned and emergent actions buyers take when segmenting their suppliers, and when these actions take place. Findings confirmed that while planned actions do take place on a portfolio level through the use of public information, the emergent view surfaces as buyers gain private information through supplier interactions, and then subsequently take actions adapting to suppliers as they go along in their managerial tasks.

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Introduction

It is well understood in the industrial marketing literature that supplier relationships must be managed differently from one another, which makes segmentation a core concept of this research stream (Wagner and Johnson, 2004; Gadde and Snehota, 2000; Palmer and Millier, 2004). The performance of a buying firm is highly dependent on the suppliers it interacts with, and how it accesses and uses complementary resources from one supplier relationship to another (Håkansson and Snehota, 1989; Dyer and Singh, 1998). A buyer's segmentation and management of suppliers determines which suppliers it interacts with, and the nature of these interfirm interactions (Wagner and Johnson, 2004). Segmentation from a portfolio perspective argues that effective supply management requires a firm to choose the right managerial approach and practices, and matching it with the product, relationship, and market conditions (Bensaou, 1999; Kraljic, 1983). One understanding of supplier segmentation suggests that a high degree of formal analysis and planning is involved in both structuring the composition of the supplier base, and developing strategies for managing and differentiating individual supplier relationships (Wagner and Johnson, 2004; Nellore and Soderquist, 2000). While this view is prominent, segmentation has also been proposed to be at least somewhat emergent, through the constant evaluation of suppliers on both a formal and informal basis, occurring only after buyers have experience interacting with suppliers (Nollet *et al.*, 2005; Andersen *et al.*, 2015). Moreover, with the countless prescriptive options, buying managers are poised with a challenge of choosing the best supplier segmentation method (Dyer *et al.*, 1998). Although the question of emergent versus planned views on strategies has been examined for some time in the management literature (Mintzberg *et al.*, 1976), an evaluation of when and how formal planned actions occur alongside emergent segmentation actions is somewhat lacking in the supplier management literature (Palmer and Millier, 2004). This study focuses on supplier segmentation from the perspective of the buying company towards its suppliers, and explores how and when emergent segmentation occurs versus more planned actions for retail buyers. To examine this issue, this study considers how and when information is gained by buyers before and during supplier interaction episodes, and how this information changes their pre-planned segmentation actions.

Buyers and suppliers are constantly interacting and gaining information from the other party throughout the segmentation process, therefore information is arguably central to interfirm interactions and buyer's purchasing decisions (Biggemann, 2012; Kline and Wagner, 1994;

Yigitbasioglu, 2010). We consider information on the basis of public and private information. Public information is readily available to the buyer at all times, and private information is often only acquired after close interaction with the supplying firm (Uzzi and Lancaster, 2003). The study's research setting is the purchasing department in a Danish do-it-yourself (DIY) retailer, and we focus specifically on the actions of the mid-level product managers who have a considerable degree of decision-making power when segmenting their respective supplier base. The findings reveal the presence of a wide range of planned views for individual buyers, which are partially influenced by a mix of imposed guidelines from upper management, and the buyer's own views and beliefs of the supplier base. Optimally managing individual supplier relationships relies on emergent views and actions, and the focal buyers must adapt to accommodate unforeseen supplier behaviours. We explain the observed emergent and planned actions, and summarise them in a conceptual model of the segmentation process. The findings are in line with the general principles of portfolio theory (Markowitz, 1952), yet challenges the assumptions of many normative supplier segmentation and management frameworks. Moreover, we interpret this process through the acquisition of information to make decisions regarding the management of suppliers. Public information is employed during the planned configuration of the supplier base, while private information is employed more frequently during the management of individual supplier relationships. We discuss the implications of this view alongside the literature that considers a buyer's purchase decisions based on a variety of information sources and heuristics (Brossard, 1998; Guercini *et al.*, 2015; Kline and Wagner, 1994).

This paper will briefly review the literature surrounding the debate of planned versus emergent supplier management processes, and the role of information in effectively managing suppliers. It will then move on to discuss the qualitative study method used, followed by the results, the discussion, and conclusions of the study.

Literature Review

A planned approach to supplier segmentation

Planning and implementing supplier segmentation is part of a firm's relational competence put into practice (Dyer and Singh, 1998). Supplier segmentation has been defined as "*a process that involves dividing suppliers into distinct groups with different needs, characteristics or behaviour, requiring different types of inter-firm relationship structures in order to realise value from*

exchange” (Day *et al.*, 2010; pg. 626). Segmentation is an attractive concept for industrial buyers, as it helps in the allocation of resources, understanding their own customers, and adaptation of the product mix (Palmer and Millier, 2004). The segmentation process is reliant on several bases to assess or define groups of suppliers with common characteristics, resulting in an assessment and configuration of the supply base (Day *et al.*, 2010). Overall, it is a key task for buying firms and their relevant buying managers (Nellore and Soderquist, 2000; Wagner and Johnson, 2004).

The need for segmentation arises from the complex supply management decisions of the industrial buyer. Industrial buyer-supplier relationships are visibly heterogeneous, as they are characterized by social interactions, and relationships in this context are often unstable (Boejgaard and Ellegaard, 2010). The buyer as a decision maker must often approach these complex decisions by placing them into less complex models (Mintzberg *et al.*, 1976), which include segmenting suppliers using portfolio models (Kraljic, 1983; Markowitz, 1952; Mintzberg *et al.*, 1976). Planned portfolio models provide useful inputs for supply management decision makers, and are used as indicators of how to deal with different suppliers (Nellore and Soderquist, 2000). They are good ways of classifying suppliers, and organizing large amounts of information for purchasing managers within complex industrial markets (Olsen and Ellram, 1997). Since the goal of this paper is to address the segmentation process itself, we will neither review all approaches here. For a review on supply portfolio and segmentation approaches, see Day *et al.*, (2010) and Turnbull (1990).

The planned segmentation view is dominant in the marketing literature (Boejgaard and Ellegaard, 2010). Portfolio models are mostly descriptive and prescriptive in nature (Andersen *et al.*, 2016). They rely on an overall strategy periodically reviewed and set by top management, which is transferred linearly to managers, translated into a procurement strategy, and manifests into the categorization of suppliers by purchasing professionals based on several operationalised criteria (Nollet *et al.*, 2005). This implies a technical-rational view (Andersen *et al.*, 2016), or a pre-planned view (Wagner and Johnson, 2004). The pre-planned view implies that decisions are taken after scanning the initial environmental conditions, changes, and opportunities. Once completed, an action plan is formulated and implemented. Strategy is conceived and implemented based on an interpretation and assessment of the environment, and the current resources of the organization (Håkansson and Snehota, 1989). For example, as Nellore and

Soderquist (2000) highlight, portfolio approaches tend to have several steps in common: 1) an analysis of the purchased products and their classifications, 2) analysis of the supplier relationships, and 3) action plans to match the supplier relationships with the product requirements. Often times these processes are guided by a number of forces. For one, suppliers often have targets or goals that are set by management, which are often executed through the use of supplier configuration and portfolio management tools. This is also highlighted in Wagner and Johnson's (2004) model, where a planning element takes place prior to an implementation of the management of strategic suppliers. They found that the planning stage of managing strategic supplier relationships were described in many different ways, yet generally involved an element of choosing which suppliers to include in the supplier base, along with the optimal strategy to manage individual supplier relationships (pg. 721).

Critiques to the planned view

Managing supplier relationships effectively is complex, which has given rise to a number of difficulties in achieving any pre-planned goals (Öberg, 2010). Therefore, the pre-planned view of supplier segmentation has received several critiques throughout the literature, which are based on its inherent assumptions. Three of these assumptions are that the segmentation strategy is stable, that segmentation is known before it is actually implemented, and that managers are rational both from an individual and interfirm perspective.

First of all, as outlined by Andersen *et al.* (2015), the planning approach assumes that the overall segmentation strategy is stable for the buying firm. Research has shown that planning is often vague, not fixed for a prolonged period of time, and the hierarchical relationship of detailed strategic planning is often replaced with more emergent approaches to strategy (Eisenhardt and Piezunka, 2011). The adaptation of firms based on the resources they offer to their chosen business partners creates a dynamic business relationship (Halinen *et al.*, 1999). The dynamic interaction between products, the customer base, and the overall market creates an environment that renders planned segmentation unfeasible (Palmer and Millier, 2004). Supply chains are also subject to disruptions, which can change the actions of retailers in reaction to these disruptions (Bode *et al.*, 2011). These disruptions might only change relationship management tactics once experienced over a period of time, with repeated disruptions from suppliers.

Secondly, critics in this area claim that normative approaches and frameworks to portfolio strategy are based on rationalisations in hindsight, and therefore not a true picture of how managers actually view the segmentation process at the time (Gadde and Snehota, 2000). This could also be explained by the fact that this view often rests on the assumption that the object of exchange is given (Dubois and Pedersen, 2002), and thus the variables and bases for segmentation are known beforehand. However, in many contexts such as the retail setting of this study, the product portfolio is subject to constant changes and modifications with seasonality and consumer tastes. Adding more variables and bases to segmentation tools might address the limitation of context, yet this does not simplify the segmentation process for buyers (Palmer and Millier, 2004).

A third, but related criticism addresses the bounded rationality of managers, and the debate considering strategy before action (Håkansson and Snehota, 1989). Managers have only a limited ability to enact the supplier relationship management process, constraining the construction of a true picture of suppliers through experiences and interactions (Harrison and Kjellberg, 2010). The formulation and execution of a segmentation strategy is people-dependent (Nollet *et al.*, 2005), and may be executed by different managers than those who formulated the initial strategy. Moreover, the differences in perceptions and rationale of upper and lower management in firms often act as a barrier to the implementation of any formal strategic management frameworks or processes (Öberg, 2010).

An emergent view to supplier segmentation

The emergent view attempts to explain the segmentation process given the shortcomings and critiques of the planned view. It also recognizes that tight and complex rules surrounding any relationship management strategy, relying on fixed assumptions can constrain an organization (Sull and Eisenhardt, 2001). We conceptualize the emergent view as both a formal and informal assessment and reassessment of a supplier's qualities, occurring from either a) day-to-day personal interactions between buyer and supplier staff, or through b) critical episodes that define moments that “*contribute to the social construction of supplier status among those involved*” (Andersen *et al.*, 2015, pg. 2). This conceptualization suggests that emergent segmentation arises out of gathering information from supplier interactions and making continuous assessments of relationships and a supplier’s capabilities (Andersen *et al.*, 2016; Harrison and Kjellberg, 2010).

They may also be reactions to new information and key interactions with suppliers after a relationship has been established (Schurr *et al.*, 2008), and from a supplier's attempts to promote their own interests within these episodes (Azimont and Araujo, 2007).

Several studies seek to uncover some of the mechanisms underlying the emergent view. One suggestion is that it is managers' day-to-day intuition that bridges the gap between academic theory and the practice of segmentation (Palmer and Millier, 2004). It claims that unique input of managers in segmenting markets where they have little experience can overcome the challenges of the planned view. Similarly, Nollet *et al.*, (2005) argue that while segmentation may often be rational and formal, it may be primarily based on the experience of the managers who implement it. Another mechanism to the emergent view suggests that the social construction of important supplier qualities occurs through sensegiving among actors in a buying firm (Andersen *et al.*, 2015). This explanation claims that internal socialisation mechanisms lead to the mental perception and possible "mental baggage" of actors involved, which influence the status of a supplying firm among a buyer's purchasing department. Only when a buyer can distance themselves from this socialisation might a planned view occur (Andersen *et al.*, 2016).

From both a theoretical and practical perspective, Dubois and Pedersen (2002) argue that relationships cannot be truly managed from a planned portfolio view. One reason they outlined was that it is highly difficult to influence suppliers from the bases selected in segmentation, and these tools make it difficult to capture and distinguish between situations and actions. They give an example of a bottleneck situation where a buyer cannot get materials from a supplier. In this case, it is hard to determine whether the bottleneck is situational, or due to how the buyer in one firm has acted. A buyer in another firm may not experience bottlenecks, simply because they have taken the time to develop the buyer-supplier relationship over time, rather than simply label the firm as a "bottleneck" supplier beforehand (Dubois and Pedersen, 2002). This supports the idea that if a segmentation strategy is set forth by a firm's management, the ability for a segmentation plan to create a competitive advantage is limited to whether it can be effectively implemented (Palmer and Millier, 2004).

The role of information in planned and emergent views of supplier segmentation

Arguably, the foundation of segmentation is the acquisition and exchange of information (Biggemann, 2012; Cannon and Perreault, 1999). Interfirm information exchange changes the

buyer's perception of suppliers over time (Andersen et al., 2016; Harrison and Kjellberg, 2010), and thus potentially the way they are segmented, or where they fit in a segmentation model. A difficulty in relying on different forms of information, especially private, lies in the fact that firms often limit the sharing of information (Frazier *et al.*, 2009; Yigitbasioglu, 2010).

Information sources have been classified in a number of ways. Alejandro *et al.*, (2011) categorized information used in the industrial purchase decision as either being personal, commercial, media, and experiential. They argued that commercial sources are often used during the beginning of the complex buying process, whereas more personal sources are used in the later stages of the buying process. Uzzi and Lancaster (2003) classified information as either public or private to reflect a difference in its role throughout the interaction process. *Public* information may be acquired without interacting directly with a firm, however *private* information must be acquired through continuous interaction. Public information regarding supplier characteristics can be acquired publicly or pre-purchased, through supply market databases or reported through standardized instruments. Private information is not publicly available, referring to "soft information that references idiosyncratic and nonstandard information about the firm, such as unpublished aspects of the firm's strategy, distinctive competencies, undocumented product capabilities, inside management conflicts or succession plans, critical supplier or customer dependencies, special contractual provisions, as-yet-unpublished innovations, and underlying motives" (Uzzi and Lancaster, 2003; pg. 384). The classification of public and private information also reflects the difficulty in accessing, verifying, and controlling for the misappropriation of information (Uzzi and Lancaster, 2003). It also allows for an account of information being highly asymmetrical, as is often the case in buyer-supplier transactions.

From an information processing perspective, the planned segmentation view relies on public information. Buyers use a combination of information sources to make purchase decisions, and these sources have a considerable influence on industrial purchases (Alejandro *et al.*, 2011; Brossard, 1998; Kline and Wagner, 1994). Firms and buyers must acquire a sufficient amount of these categories of information to categorize suppliers, and take action from this classification (Brossard, 1998). This suggests that the information gathered is sufficient to make the purchase and segmentation decision. This is confirmed to a degree in some studies, who found that buyers use third party references to help select a supplier management tool, or gather information on the

capabilities of a supplier prior to selecting or interacting with a supplier representative in a face-to-face setting (Guercini *et al.*, 2015).

From the view of private and public information, emergent views would likely rely on the acquisition of private information, while public information would largely inform planned segmentation views. The emergent view would suggest that such a systematic and formally rational decision-making model seems to be rarely used in management practice, and acting on partial information is common (Mintzberg *et al.*, 1976). Private information is inevitably only gained through ongoing interactions with the supplier, or acquired after the purchase has been made (Mavlanova *et al.*, 2012; Uzzi and Lancaster, 2003). Information such as a buyer's own notes from previous experience with the supplier, or from monitoring the development of an ongoing relationship might inform how an individual relationship should be managed (Guercini *et al.*, 2015).

Buyers gather information from a variety of sources, often relying on their own experience and intuition in familiar product categories (Kline and Wagner, 1994), agreeing with many of the criticisms of the planned view. Some research claims that as factors such as time pressures, complexity, uncertainty, and importance of an organizational purchase increase, the information search needs to be "*more active, with a wider variety of information sources to be used to facilitate the purchase decision*" (Alejandro *et al.*, 2011, pg. 17). However, research from Eisenhardt (1989) suggests that more experienced and effective buyers might actually use *fewer* information sources when managing supplier relationships. In times of interaction, managers often have limited access to information and often act on simple rules and heuristics to make decisions (Guercini *et al.*, 2015). While the techno-rational planning view would argue that this information is acquired before segmentation takes place, an emergent view recognizes that key supplier information is also acquired by interacting with the supplier on a continuous basis. Therefore, a buying manager may only get sufficient information to influence effective segmentation after gaining both public and private information from the supplier through interactions with them (Alejandro *et al.*, 2011).

Methods and study

We conducted a qualitative case study of a medium-sized Danish Do-It-Yourself (DIY) retailer, hereby referred to as HomeCo, to explore the research question. This approach was chosen for several reasons. First of all, interpretive case studies allow for a researcher to examine the richness and complexity of qualitative interview data, along with drawing on knowledge of the details surrounding the focal case (Gummesson, 2003). Second, interview participants were not always fully aware of the extent of their own planned or emergent segmentation actions. The emic view of the participants involved are not taken to be a true account for the truth or of reality (Woodside *et al.*, 2005). Rather, this research approach allowed participants to describe their supplier segmentation processes in an open and semi-structured way. The interpretive study then requires the researcher to draw interpretations from the rich description of these actions. Finally, the interpretive process is a well-recognized paradigm for examining specific interaction episodes, and to reconstruct them in detail (Schurr, 2007).

HomeCo was chosen as the firm of study after an initial meeting with one of its buying coordinators. From this meeting, it was determined that while HomeCo's top management had an overall segmentation strategy, performance goal, and supplied guidelines and training material to facilitate segmentation for individual product managers, the means to achieve the goals were at the discretion of the managers. This allowed for greater flexibility in product managers to implement a range of planned or emergent approaches to meet the goals of upper management goals. It was also determined that HomeCo had daily communication with prominent suppliers, which allowed for a large number of potential interactions to be described by interview participants. The purchasing department formed the focus of the study, and is composed of three levels of management spanning eight product groups. Each product group is assigned a Product Manager as the buyer to oversee all supplier management practices and Buying Coordinators act as supporting actors for the Products Managers.

The unit of analysis is the supplier segmentation actions of the buying manager that are employed as the result of either a planned management view, or from episodes having the potential to define and change the nature of buyer-supplier relationships – as similarly examined by Schurr *et al.*, (2008) and Azimont and Araujo (2007). These were considered across each examined product group. All but one group were interviewed, and the unexamined group declined to

participate due to time constraints. The first data source consisted of semi-structured interviews with purchasing managers of the buying firm. Purchasers as boundary spanners are useful informants for such studies, as they can provide informative perspectives on their own firm's intentions, as well as their views on the intentions of supplier firms (Ireland and Webb, 2007). Seventeen semi-structured interviews of an average of one hour in length were conducted with the Product Managers and Buying Coordinators of HomeCo. Interviews are often used to describe and reconstruct key interactions and decisions in interfirm relationships (Edvardsson and Roos, 1992). Interviews were audio recorded, and transcribed to facilitate the analysis. To encourage an open and relaxed interview environment, participants were ensured that all names of the interviewees and firms involved would be kept anonymous. The interviews are summarised in Table 1. Initially, a pilot interview was conducted with a contact at HomeCo, which was then used to identify new pertinent contacts within the purchasing department – those that had the capacity to plan and make changes to HomeCo's supplier portfolio. The general guideline for the interview followed two stages. In stage one, interview participants were asked if they had a corporate segmentation guideline, and then asked how they distinguished between suppliers in their product category. Questions were also asked to gauge how the purchasing managers classified their suppliers, and how plans are replaced by emergent actions as information is gathered. Stage two focused on different forms of information, and asked participants to describe instances where they may share, acquire, or lack different forms of information. The types and categories of information were guided by the literature (Samaddar *et al.*, 2006; Uzzi and Lancaster, 2003).

Table 1: Summary of HomeCo product categories and interview participants

Product category	Approx. number of suppliers in category	Participant	Interview length (minutes)	Date
Paint	40	Product manager	48	16-10-2015
Tools & Equipment	15	Product manager	63	16-10-2015
Home & Leisure	15	Product manager	54	31-03-2016
		Buying coordinator	50	26-01-2016
Building materials	75	Product manager	43	07-10-2015
		Buying coordinator	49	10-11-2015
		Buying coordinator	50	25-11-2015
Plumbing & Sanitation	25	Product manager	53	16-10-2015
		Buying coordinator	96	11-09-2015
			60	01-06-2016
Electronics	20	Product manager	58	07-10-2015
Flooring & Concrete	45	Product manager	64	02-10-2015
		Buying coordinator	66	12-11-2015
		Buying coordinator	50	02-02-2016
Light product group*	Total of 4 product categories*	Purchasing group manager	48	11-10-2015
Chinese sourcing office – all groups	100	Sourcing office manager	50 - telephone	20-05-2016
All	NA	Marketing coordinator	25	16-10-2015

In addition to the interview data, company materials and publications were used to inform the interpretation of the data, and to triangulate the findings (Yin, 2009). These data consisted of 1) an internal buyer survey of a supplier satisfaction index which ranked all suppliers, 2) buyer training and negotiation guides, 3) slideshow presentations for buyer-supplier meetings, and 4) secondary publications and annual reports. These sources were ideal to corroborate and clarify goals from upper management for managing and configuring the supplier base. For example, the negotiation training material featured several supplier portfolio management frameworks, which clarified how buying managers might view their own supplier base. The supplier satisfaction survey completed by HomeCo employees helped the researchers interpret how (un)favourably suppliers perform or are viewed within HomeCo, as these common views may also influence the perspective of a single purchaser towards a supplier (Andersen et al., 2016).

The coding process was abductive, requiring several iterations between theory and the data (Dubois and Gadde, 2002). Initial coding yielded an overall understanding of how each purchaser approaches the supplier segmentation process. The second step of coding divided the data into

two broad categories 1) configuring the supplier base, and 2) managing individual supplier relationships (Wagner and Johnson, 2004). Configuring the supplier base referred to the segmentation of suppliers on a portfolio level, and managing individual relationships focused on the actions that buyers took to differentiate individual suppliers. Thirdly, these two categories were divided into either planned or emergent actions. This categorization was guided by the literature (Andersen et al., 2016; Mintzberg et al., 1976). Planned management featured comments regarding segmentation goals set by upper management, supplier portfolio management frameworks, or other *ex-ante* tactics for managing supplier relationships. Emergent approaches were coded based on either informal analysis of suppliers, a reaction to an unforeseen circumstance, an inability to meet a pre-determined plan, or any deviation from the buyer's planned approach. Finally, coding focused on inductively categorizing the tactics surrounding planned and emergent approaches. After a review of relevant literature on information exchange, these categories were interpreted on the basis of public and private information acquisition by the HomeCo buying managers.

Emergent and planned supplier segmentation in HomeCo

The results will begin by focusing on how HomeCo buyers on two levels of management segment and configure suppliers through a planned view, and includes an overview of the circumstances in which planned segmentation actions occur when differentiating and managing individual suppliers. It then moves onto discussing the transition into an emergent view held by managers, which is the result of the need to adapt their plans through the emergent actions and their underlying causes. Following the emergent view, actions are discussed in terms of public and private information sharing. Finally, a model is presented that summarises the supplier segmentation process.

Planned segmentation actions

Configuring the supplier base

Data showed that configuring the supplier base on a portfolio-level had a considerable degree of planning. Management actions pertaining to a planned view are derived from two levels of management within the firm. From a higher-level of management, planning stems from an appointed purchasing team operating across all countries of operation. The goal of this team is to establish “Nordic Agreements” among the top suppliers in the market, and combine the

purchasing power for all retail operations within the Nordic countries. These purchase agreements outline some of the broader commitments that suppliers must meet, and categorize suppliers and potential suppliers among these issues. This includes the ability to commit to joint marketing, supporting the retailer of in-store merchandising, among other similar segmentation bases. The configuration of the supplier base on a portfolio-level in this instance is planned by the purchasing team, with a “checklist” approach with a number of bases rather than a simple supplier portfolio management framework. The Group Purchasing Manager who oversees the purchases of four product categories was the most senior of the interview participants, and was a leading member of this purchasing team. Their description of the purchasing team is as follows:

“We have to find out in the team whether we can see a potential for a given supplier. Could we all commit to this supplier, could we all see a potential growth together with this supplier?...Then we go into the dialog with the supplier to find out if they also want to work with us on a Nordic level. We consider whether they are Nordic orientated - do they have sales people in all of the countries? ... Also in regard to all our demands in commercial terms, can they reply to that? Our legal terms, can they reply to that? Of course, we also want to mainly do business with number one or two in the market, so they have to have a certain market share, and place in the market.” (Purchasing group manager)

This example quote shows that there are certain objective bases in which suppliers and potential suppliers are evaluated by high-level buying managers, and these managers form their own views and impressions of a supplier portfolio from these segmentation bases. These impressions are partially imposed on the Product Managers at subsequent level of the firm’s structure.

Product Managers and company material revealed that the three broad formal planned goals and performance metrics for segmentation imposed by upper management are 1) the compliance with Nordic Agreements, 2) a minimum volume generated from private label products, and 3) performance targets based on total sales, profit, and volume for their respective category. First of all, the compliance with the Nordic Agreement refers to a need to comply with the specific requirements that are outlined in the contractual purchase agreement. This might include, but is not limited to, a minimum cooperative advertising budget, a requirement to list certain exclusive products, or minimum order requirements. This limits any emergent actions between both the Product Managers and their respective supplier representatives. Second, upper management has imposed the need to source and sell a minimum proportion of product under the retailer’s private

labels. This can be implemented by Product Managers through whatever means that is suitable for them, but the underlying goal places a constraint on how the supplier portfolio is configured. Finally, Product Managers are primarily measured based on their sales volume, and profit margins. While this does not necessarily directly change the configuration of the supplier base, data revealed that it does push managers to focus increasingly on these figures alone when managing the supplier portfolio, suggesting that financial metrics are a cornerstone for planning supplier segmentation.

Although the above guidelines steer managers' planned actions in their daily tasks, individual Product Managers can meet these goals through their own decisions. Product Managers also have the power to configure and manage smaller suppliers that only service HomeCo within its group of companies – these are the suppliers that are not part of the Nordic Agreements. This requires configuration of the suppliers within the Nordic Agreements alongside those who supply HomeCo only on a local level. The following quote demonstrates the lack of a uniform planned segmentation view for managing suppliers for this level of management:

“There’s no supplier segmenting tool that is used across HomeCo... It’s hard to see what comes out of a model like that. If we say that we have this tool, and we know that what we gain by using this tool is something on the bottom line, I think it could be more implemented, and more understood.” (Buying Coordinator – Plumbing and Sanitation)

Interestingly, a lack of a firm-wide segmentation tool does not completely impede a pre-planned supplier segmentation view for Product Managers. Such an environment gave rise to a number of different ways in which suppliers are segmented across the individual buyers in their respective product categories. To demonstrate the range of the individual managers' own pre-planned segmentation views, Table 2 displays the different ways suppliers are initially segmented in their own supplier portfolio for their product group. It summarises each of the bases that suppliers are segmented for the respective product category by managers. The table shows that there are some bases in which planned segmentation is completed, yet these bases are different across all product groups. For example, the first Product Manager listed in the paint category has a large checklist for selecting and planning the configuration of the supplier base. They consider the risk of the product not being available, along with the attractiveness of the product from the point of view of potential growth and profitability. Finally, to the best of the manager's ability, they consider how

the supplier views HomeCo on many of these factors. Overall, the table supports the presence of a planned view for the management of their portfolio, which stems from their own individually-chosen bases. Lacking overall guidelines for categorizing their suppliers, managers formed an impression of their supplier portfolio and attempted to make a plan for engaging suppliers. Product Managers were open to their own experience, considerations and methods when choosing the bases in which to evaluate and configure suppliers. These impressions and considerations formed the foundation of the planned view, and actions for the managers.

Table 2: Summary of planned supplier base configuration approaches for HomeCo Product Managers

Product category	Planned segmentation considerations	Example Quote
Paint	- Comprehensive checklist, including risk and market attractiveness - Includes HomeCo and supplier perceptions of considered items	“It’s about what part am I of their total turnover, etc. This is more, not fact based on how they see us, but most of it is subjective - how I do think they see us and also what part of their total turnover is HomeCo.”
Tools & Equipment	- Four supplier groups: partnerships, benefit of size, private label, soon-to-be delisted	“Our strategy is maybe to segment the suppliers and say “okay, this kind of a partnership is where I’m very open. I know the costs of the supplier, I know my own costs, so we can sit together as a partnership and find our best solution. I want to move and consolidate a lot of my products to those suppliers. Partnership is one category. Then I also have what I call benefit of size.”
Home & Leisure	- Informal segmentation but largely profit-focused	“I have always looked at the earnings, whether we profit from it. I know we are talking a lot about top line in the organization, but the thing is in my product area for the last two years or so we did provide a lot of top line, but the bottom line was heavily under pressure. Then there were a lot of areas, or a lot of projects I killed because there was not a lot of profit there.”
Building materials	- Based on the ability of the supplier to cooperate	“In HomeCo we have a tradition to find the right ones and deal for many years with the same suppliers to have a good cooperation with them.”
Plumbing & Sanitation	- Value added to relationship - Degree of supplier substitutability	“What is the importance of the supplier in the cooperation? And in the same time, you’re looking for: “what is the value?” So that’s actually the way that I am classifying my suppliers. Often if you have a supplier where you have a big partnership, they are capable to earn more money because they are adding more value to the articles. That is the reason they are in the partnership.”
Electronics	- Supplier size and flexibility	“(Supplier 1) and (Supplier 2), we have a very good relationship with them. It’s much easier for them to adapt to our needs, If we need another product in (Supplier 2), (that’s small things such as sockets and switches), if we need a new product and we need the cord in smaller rolls, they just make it for us.”
Flooring & Concrete	- Product complexity	“I try to look at my products as homogenous products and as differentiated products. So it’s kind of different in terms of what I prefer to focus on. With generic products, price is obviously a very important factor. If it’s more differentiated products, I try to maybe not push the price as much, but maybe more merchandising in the store, more allocation, more marketing in the store, and so it varies a bit”
Light product group	- Comprehensive checklist, with mutual interests as a highlight	“...we see how they can grow the sales together with us, and so I guess it’s finding out whether there’s a mutual interest on both sides of the table to grow together.”
Chinese sourcing office – all groups	- No formal analysis, but a consideration of HomeCo’s order sizes	“Cooperation in China is very much from order to order. They look at price and things like that. ...Many of our biggest suppliers in China are seasonal suppliers. So that means that for each year, you start from scratch in building the assortment and the prices.”

It was indicated that Product Managers and the supporting Buying Coordinators did no more formal planning for managing the supplier base apart from the above considerations, instead, they simply invent their own methods within each individual category plan. This would suggest that the additional activities are more emergent in nature.

Managing individual supplier relationships

Once Product Managers must differentiate and manage individual supplier relationships throughout their daily management tasks, there were also elements of planned circumstances and actions. Data revealed that there are very few deviations from the planned view in two specific situations. First of all, the purchasing group manager suggested that supplier relationships of a smaller size or volume (with adequate competences to meet the standard requirements set for smaller suppliers) do not merit much change after a decision has been made. These “simple” relationships are far more predictable, and therefore there were very few instances in the data where the management of these relationships needed changing.

“It’s just common sense. Because all of the smaller suppliers you just need to have the right price and the right setup, delivery setup and um, sometimes that’s just it.” - Purchasing group manager

Finally, the addition of electronic sourcing through reverse auctions has given the ability for HomeCo Product Managers to strictly manage their supplier relationships and individual purchases. They are able to control every aspect of the purchase, and wish to make comparisons across suppliers on very similar products. HomeCo buyers are able to control whether the supplier knows if they are competing alone, or with others, and does not allow for “extras” to be included in the price. There were no instances in the data where a supplier did not meet their requirements after being awarded a contract through an electronic auction. This suggests that they are an effective way to plan and manage individual relationships through a structured manner. However, this is related to the simplicity of the relationship, as more standardised and homogenous products are more likely to be procured through electronic reverse auctions.

Emergent actions

After the buyer forms their own planned segmentation view, they often discover that it must be adapted and changed as they interact with their suppliers, regardless of the level of management.

This is what we defined as more emergent actions. Once the manager's segmentation view was implemented, there was a high chance that the segmentation had to be adapted, and evaluated differently based on new upper management expectations, or where the plan could not be realised. In other words, the actions of the Product Manager in differentiating individual suppliers frequently changed when compared to the views and impressions featured in Table 2. These relationships required the purchaser to perform three prominent emergent actions found in the data: 1) unintentional deviations, 2) performance responses, and 3) impromptu assortment planning. These actions symbolise a need to adapt their planned views of the supplier base to the realities of implementing this view in their daily managerial tasks.

Table 3 summarises these three emergent actions along with supporting quotes. Results from this table show that differentiation of individual relationships is often impeded by actions of the suppliers themselves. This can be through their apparent resistance to a buyer's planned actions, or from unforeseen performance issues. It is also apparent that in some circumstances, conflicting guidelines set forth by upper management gives the potential to contradict Product Managers' planned approaches to configuring the supplier base, resulting in the emergent management of individual supplier relationships.

Table 3: Summary of emergent and planned actions for managing individual supplier relationships

Emergent action & definition	Cause	Example quote
<i>Unintentional deviation:</i> deviate from initial supplier configuration view	Active impediment from supplier	“In a typical situation, we will do as much as possible to source the article directly from the producer...Here we have a setup where we cannot go without the wholesalers because, if we are looking at (Wholesaler), they are our biggest supplier,. and we are the smallest. So when we are trying to negotiate directly (with the producer), they are afraid that these guys (Wholesaler), will put pressure on them.” – <i>Product Manager Plumbing and Sanitation</i>
<i>Performance responses:</i> Terminate or reduce otherwise collaborative suppliers due to a sudden change in a supplier’s performance	Unforeseen supplier underperformance/ unforeseen improvement in performance from competing supplier	“If they are not keen on doing any information swap or not keen on working together with us, we tend to not consider them an important producer. Basically that is stupid because they could be, they could be really important to us. For example toilet supplier A, they haven’t been keen on talking to us at all, so we haven’t pursued it. Actually we were talking about throwing them out of the assortment...” – <i>Buying Coordinator Plumbing and Sanitation</i>
<i>Impromptu assortment planning:</i> planning the product assortment <i>after</i> supplier is selected	Selection of supplier based on only Nordic Agreement or a single metric by Product Manager	I’ll say “you (supplier) are performing very well, I like your work. You need to give me better prices, and then I’ll put you into my thoughts in giving you larger volume...Then I will say “I really want to develop <i>these</i> products in <i>this</i> category...Then you help me to find the product range I’m looking for. You help me find this particular product, you help me find the total solution which we can easily communicate to the stores and basically to the end consumer.” – <i>Product Manager Flooring and Concrete</i>

First of all, due to a wide range of forces and misalignments between the goals of the buying and selling firms, the plans for managing individual relationships are often impeded by the supplier. This causes an unintentional deviation from the original segmentation plan. An example of this action from the Plumbing and Sanitation Category occurred when the wholesaler impeded HomeCo from building closer relationships with the manufacturers. In this particular market, the manufacturer had all of the buying power, and limited the communication and relationship management activities between HomeCo and the individual manufacturers. All purchasing must go through the wholesaler. The result is a deviation from their planned segmentation in Table 2,

which was to segment suppliers based on their ability to add value to the relationship, and the degree of supplier substitutability. This fosters a number of emergent actions. There must be an unwanted negotiation between three parties, and information is shared unevenly between both types of firms.

Secondly, buyers will respond unexpectedly to the performance of suppliers. In cases where suppliers perform negatively outside of expectations, and this is either unforeseen, or an issue that grew more serious over time. Although the suppliers have been evaluated based on the best abilities and experiences from the Product Managers, there are always unexpected outcomes to these evaluations. Such unexpected poor performances occur somewhat frequently for HomeCo, and they must manage the relationships accordingly. In the case in Table 2, the supplier, although chosen from a planned configuration, is being considered as a supplier to be delisted based on a lack of desire to cooperate and share information with HomeCo. This is obviously an action that is emergent, yet something that occurs frequently in the data. Each Product Manager reported at least one instance where this occurred. Conversely, if a competing supplier suddenly offers good products at discounted prices, the Product Manager either shifts their focus to the supplier who has made the offer, or suddenly uses the offer to put pressure on the suppliers who were originally classified as being more collaborative. These unforeseen increases in the performance of a competing supplier have the ability to shift the configuration of the supply base quickly, especially if the change is considerable. This suggests that while suppliers are configured based on a planned approach, the importance of financial performance has the potential to dramatically change the nature of individual relationships. It also suggests that the planned segmentation variables are simply a “loose” plan, and that managers accept that they will have to act freely within that plan.

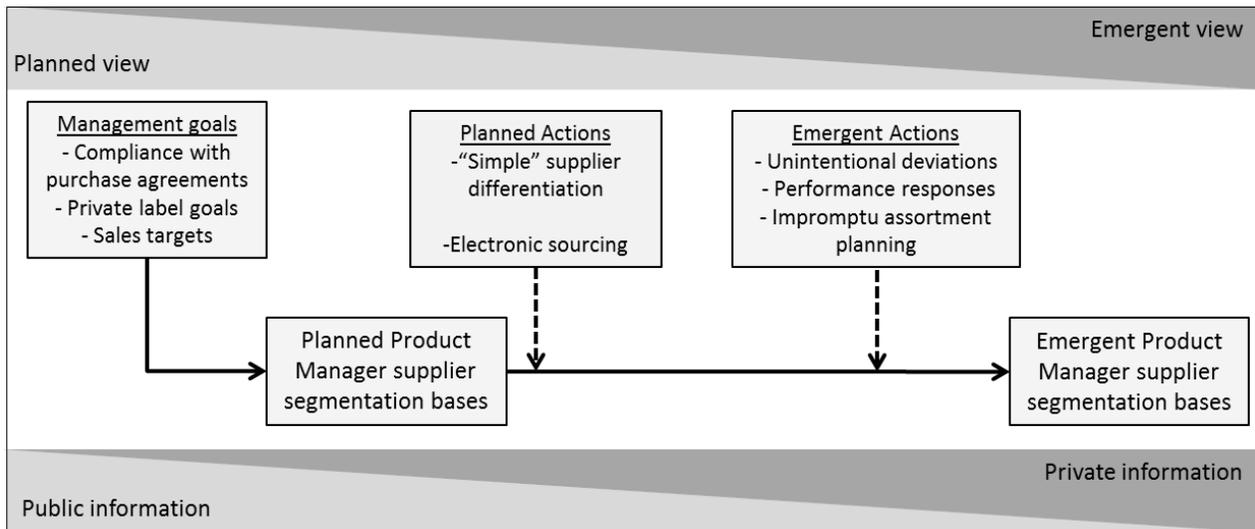
Finally, impromptu assortment planning occurs when the product range is chosen after the supplier is chosen and differentiated, even though the Product Managers claim to plan their segmentation based partially on the type of product offered. This could partially be due to either the Nordic Agreements, or from the portfolio configuration tools that Product Managers employ, a particular supplier is selected before any formal planning of the product assortment has taken place on the HomeCo level. The example quote provided in Table 3 is interesting, as it is from the Product Manager in flooring and concrete, who claims to configure suppliers based on the

type of product they offer. Yet according to this example, much of the product offering is only discussed after the supplier has been chosen. This often occurs with suppliers who offer very wide ranges of products, both complex and homogenous. Impromptu assortment planning actions suggest that Product Managers form a general plan or view of their portfolio based on a few simple bases or rules. However, if a supplier is particularly strong in an area (such as after-sales service) that is not considered by the buyer’s analysis of the product alone, they will differentiate that supplier and manage the relationship based on that area only. This action is an emergent segmentation approach in response to new information and basis from which to evaluate the supplier.

Public and private information

Figure 1 summarises the findings of linking information acquisition to planned and emergent actions by retail buyers.

Figure 1: A model of planned and emergent supplier segmentation actions



Generally, it was found that planned segmentation actions originated from public information, while emergent actions were based on private information. When buyers make decisions on informing their planned view and configuring the supplier base, they used information sources that were generally available publicly, or through secondary sources. HomeCo Product Managers mentioned that they used sources such as trade publications, the supplier’s website, information from trade shows, a supplier’s reputation, and other available sources. It was even likely that they

used information sources from family or friends to both determine how suppliers should be segmented by products. To illustrate this association, we will focus on the example of a Product Manager from the Flooring and Concrete product group. This Product Manager used both sources of information when segmenting their suppliers, however public information is initially employed to plan the segmentation actions for a selling season. This is demonstrated by the quote below:

“So for me it’s about asking my wife (laughs). No - trying to look at the trends, what kinds of designs you see in (Magazine name) this news magazine, an interior (design) magazine, trying to look at the designs when you see different television shows, what you see in newspapers, and so on. So you try to understand what kind of design and decor you would like to have to match the trends we see at the moment.” – Product Manager Flooring and Concrete

Therefore, by gathering public information, the buyer is able to form a picture of the trends within the latest market, and can manage their supplier relationships accordingly. However, the same buyer would rather communicate with the supplier and acquire more private information before truly placing them in a closer and collaborative supplier category within their segmentation model. In other words, to manage and differentiate the individual relationship, the information required becomes available to the buyer after interactions and the acquisition of private information. For the illustrative Product Manager example, the following quote demonstrates how they compare the least collaborative supplier relationships (at the bottom of the list they drew during the interview) with suppliers in the more collaborative group:

“I choose in terms of price of course, when you view the suppliers at the bottom (of the drawn list), but I also choose in terms of these service added. The company that can give the most, the company that would be the most inspiring and creative marketing material, publication material, the ones that have the most employees to sort of take care of our stores and so on.” – Product Manager Flooring and Concrete

Moreover, it takes a certain level of private information for a supplier to be seriously considered as a close and collaborative partner, and thus being segmented based on the level of value that they can add to a relationship:

“...almost exclusively, I would like to see the production before I would purchase from a company. Because I want to see how it’s produced, I want to see what it looks like, so when they say “we can do

this, we can do that, we can do everything”, I want to see if it’s really true, and in order to understand the cost breakdown.” – Product Manager Flooring and Concrete

The final quote refers to private information, and as argued, this can only be acquired after interacting with a supplier. Therefore, if the information acquired is not to the satisfaction of the buyer, then there would be a sudden change in the way that the respective relationship would be managed. For example, if a supplier was not able to provide the available after-sales service once having already been a supplier for HomeCo, this Product manager would have to act accordingly. This occurred frequently throughout the interview data, across several different product categories.

Interpretation and discussion

The discussion of the findings focuses on two main points. The first is regarding the use of both planned and emergent segmentation approaches, while the second concerns the type of information involved with these two approaches. It has been previously argued that the pre-planned segmentation of suppliers requires both the configuring of the supplier base, and the differentiation of the individual relationships within that configuration (Wagner and Johnson, 2004). While the findings of this study agree with the classification of these activities, the degrees to which these activities are planned appear to vary for between managers of the firm under investigation in this study. Most purchase portfolio planning studies would argue that the managerial planning and actions are aligned, yet this study shows an entirely different approach. We find that managers form a loose picture of their supplier base through segmentation bases and management goals earlier in the process, yet will deviate from this segmentation plan in a number of cases and through a number of emergent actions as interactions occur during later segmentation stages. In other words, even though a buying manager receives a limited degree of direction, they will form their own planned picture of the supply base, but must form an emergent view as they go along in their managerial tasks. The emergent view forms from a number of necessary emergent actions such as unintentional deviations from a supplier’s resistance to the plan, unforeseen supplier performance, and impromptu product assortment planning,

As an interpretation of these findings, the planned and emergent approaches are tightly related to the information that is involved with the segmentation process. Overall, the planned view of

supplier segmentation relied on *public* information, as well as the experiential information of the Product Manager. Experience allows managers to implement supplier relationship management models, which is closely linked to the use of heuristics in supplier base configuration (Guercini *et al.*, 2015). The outlined supplier segmentation tools that buyers employ are therefore means of simplifying decisions through simpler rules and heuristics (Dubois and Pedersen, 2002; Guercini *et al.*, 2015; Sull and Eisenhardt, 2001). Emergent actions generally originate from the buyer acquiring *private* information. Private information is only acquired through interactions with the supplier after the initial decision has been made to include them as a supplier, and differentiate them on a chosen basis. This occurred because upper management had a minor role in setting general goals for segmenting suppliers, but individual buying managers had complete influence on how these goals were met.

Private information is not available until the product manager has interacted with the supplier, and involves more sensitive information, and therefore information that is more difficult to access (Uzzi and Lancaster, 2003). Furthermore, suppliers resist the plans of managers, which represent a level of internal information that is only acquired once a manager interacts with the supplier, and attempts to evaluate them according to their segmentation bases. Therefore, this study agrees that higher level, private information sharing generally occurs only after an relationship is well-developed (Biggemann, 2012; Uzzi, 1997). It is this information that truly indicates whether a supplier “fits” into the picture that the buyer has constructed when configuring the supplier base. Information in these cases came from interactions with suppliers, and the sensitive information that may be acquired (Samaddar *et al.*, 2006). This includes figuring out other customers of the supplier, information (or a lack of information) on the supplier’s supplier, information regarding the working environment or personalities of the industrial salesman, and the bonus and pricing structures. It is also of high importance that the buyer actually confirms or denies the reputation of the supplier by experiencing how they perform to meet the needs of the retailer. Once this information is gathered, it becomes part of the experience of the product manager for any subsequent planned segmentation actions.

Conclusions and limitations

There are two general conclusions and contributions from this study. First, while the dominant view on segmentation in the literature is the planned view, we show that it is only planned at the

early stage in the segmentation process, but then in the interaction stage it becomes a mixture of both planned and emergent approaches. This study contributes to the supplier management literature by critically examining how individual buyers actually form and act on segmentation in practice within the context of a company with no overall formal segmentation plan for individual Product Managers. Findings confirmed that while planned actions do take place on a portfolio level, the emergent view surfaces as buyers gain information through supplier interaction, and subsequently take actions towards suppliers as they go along in their managerial tasks. The study contributes to the debate of planned versus emergent segmentation views by outlining how managers segmented their suppliers through their own means, and indicated the common cases where they had to deviate from their plans. We also show the situations where managers were able to follow through in their plans when managing individual suppliers. In particular, results indicated how plans may change the composition of the supplier base through three different emergent actions. Emergent actions reflect the need to adapt to changing circumstances, and create an emergent view of their supplier base. Secondly, we also contribute by showing how information is used in this process. Extant theory on segmentation says little about information use and when it is described, it is mostly as the use of public information. However, our findings show that in the emergent process it is not public information, but rather private information that becomes the key factor in initiating the subsequent emergent actions.

This study has several limitations that may affect the findings and contributions of the study. First of all, the examination of a single case limits how one can claim the level of emergent and planned supplier management practices for all firms. As mentioned in the results, HomeCo has a number of policies and goals that management has set, which in turn affected how the Product Managers perform segmentation actions. Upper management of a different firm might create a very different climate for segmentation planning, thus changing the results for a different case. Future researchers may wish to study these processes using more than one case firm. Secondly, this study relied primarily on cross-sectional interview data. The nature of the data has limits in terms of the memories of the participants in recalling their segmentation views in their interactions (Schurr *et al.*, 2008). Moreover, the data from the buying firms limits the scope on the interpretations of the events that took place regarding segmentation views. Finally, while this study does provide some guidelines towards how emergent practices manifested for managers, this is almost entirely dependent on the researcher's interpretations of the events. There is a limit

to how much research of this nature can get “inside the heads” of buying managers to truly observe how planning might and might not occur and if changes in segmentation actions are truly planned or emergent.

Managerial implications and future research

This paper offers several managerial implications. First of all, it guides upper management of retailers in how their buyers might actually manage their supplier base. It suggests that while some guidance through goals and rules is effective, it can also act as a means of limiting how buyers manage individual supplier relationships. Extending on this point, we can say that when firms choose not to initiate planned segmentation approaches, buyers find themselves in certain circumstances where they will have to deviate and adjust the supplier base in a way that differs from their original intentions on an individual level. This could potentially improve the flexibility of the individual Product Managers, and allow for a better management of the supply base, however this assumes that the intuition and experience of the manager is sufficient to effectively deviate from a tightly-planned segmentation approach. Secondly, from the perspective of supplying firms, this study shows that buyers do not have all aspects of the management process planned, and actions they perform can considerably change the decisions of buyers. Suppliers must also be aware of the information buyers are gathering throughout the interfirm relationship. Lastly, this study provides a clearer picture of how segmentation actually occurs, versus the more prescriptive models based on hindsight. It emphasises that it is more likely that not all information regarding the management of the supplier base can or should be gathered before entering into a relationship. However, once the relationship begins, the buyer should be vigilant and allow for new actions and adaptations to emerge based on newly acquired private information.

While this paper continues the discussion of emergent versus planned segmentation, there are many areas that are fruitful for future research. To improve on a comprehensive list of the actions that are planned versus emergent for purchasers, more quantitative methods may be implemented through more survey-based research. Alternatively, researchers might want to explore how buyers implement emergent practices through more detailed, process-based models (Langley, 1999). This would likely require more longitudinal data, potentially through observations and multiple interviews per participant. Finally, this research concentrated on the views of the buyer

with little consideration on the managers from the supplying firms. Future research might focus on the views of the supplying firm in how their views of managing customer accounts are related to the emergent and planned supplier management tactics of the buying firm. Combining these viewpoints might lead researchers to build a more well-informed process model of how these approaches interact.

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4.4 | Study 3

How buyer roles and critical times affect buyer-supplier exchange episodes¹

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Abstract

Purpose: This study examines how buyer-supplier episodes are characterised by their dimensions of time and social space, and how these dimensions interact to impact the criticality of an episode. It explores how time and social space create patterns of episodes that lead to buyer-supplier relationship change and continuity. The study examines the social space by the different roles that the buyer assumes among their episodes, while focusing on the concept of critical time to denote the temporal context.

Design/Methodology/Approach: A case study of a small retailer and five suppliers is employed. The primary data are email communications between the buying and selling firms, along with a two-week field study at the retailer's location. A total of 2,000 emails are analysed to yield 75 critical episodes for the analysis.

Findings: The criticality of episodes differs depending on the role that the buyer assumes, and whether the episode occurs within a critical time period. The social space affects the type of criticality, while critical times enhance an episode's criticality. This study outlines five different patterns of episodes occurring within critical times and across social spaces that characterise each of the buyer-supplier relationships.

Research Limitations: This paper focuses on email communication, with little data on interactions occurring outside of this medium.

Originality: To the researcher's knowledge, this paper is the first to link specific patterns of episode characteristics to the concept of buyer roles. It also examines episodes using email communication, which is not a common source within the IMP research stream.

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Introduction

The specific exchange episodes between industrial buyers and sellers lie at the centre of many issues in the field of industrial marketing (Gummesson, 2007; Håkansson and Ford, 2002; Håkansson and Waluszewski, 2013; Schurr, 2007). Understanding exchange episodes is important for both research and practice, as the cumulative outcomes of exchange episodes have repercussions for the development of the buyer-supplier relationship as a whole (Holmlund, 2004; Håkansson, 1982; Schurr *et al.*, 2008; Berends *et al.*, 2011). While this was recognized within the early Industrial Marketing and Purchasing (IMP) research (Ford, 1980; Håkansson, 1982), examining the characteristics of critical episodes and their effects on the buyer-supplier relationships has not been explicitly addressed in the current literature. Industrial marketers often ignore the space and time dimensions, contexts of exchange episodes (Schurr, 2007). Moreover, a precise description, classification, and identification of patterns of exchange episodes still remains an unmet challenge for IMP research (Håkansson and Waluszewski, 2013). As mentioned by (Schurr *et al.*, 2008; pg. 878) “*researchers pay too little attention to what happens at the interaction episode level leading to relationship changes.*”

Buyer-seller relationships may be pictured as a series of interaction episodes where the partners behave and respond in a number of different ways (Ness, 2009; Håkansson, 1982). How actors respond within an interaction episode impacts the overall state of the interfirm relationship (Thomas *et al.*, 2013). The degree of impact, or outcome, is known as an episode’s criticality (Edvardsson, 2000; Schurr *et al.*, 2008). Research would benefit by expanding the consideration of episodes to those of both higher and lower criticality, as episodes can either set the stage to potentially cause present and future changes in interfirm relationships through several episodes, or simply terminate or initiate a relationship through a single episodic interaction (Edvardsson *et al.*, 2014; Halinen *et al.*, 1999; Roos, 2002).

Understanding changes in business networks also requires us to understand how actors perceive the dimensions of time and the social space of the interfirm of buyer-seller interactions (Abrahamsen *et al.*, 2012; Edvardsson, 2000; Halinen *et al.*, 2012; Schurr *et al.*, 2008). Time as a socially constructed dimension can affect actors’ interpretations of their interaction episodes (Halinen *et al.*, 2012; Medlin, 2004), especially during “critical times” as perceived by the actors involved (Edvardsson and Strandvik, 2009). Similarly, an actor’s perception and interpretation of

their own role, and attempts to influence their own positions can impact their actions, and therefore the outcome of a relationship (Anderson *et al.*, 1998; Mattson and Johanson, 1992).

However, recent observations by La Rocca *et al.* (2017), reveal that analysing business-to-business relationships will require researchers to consider the different roles that a buyer might assume. Similar actors may vary in their behaviour across several different dimensions, and therefore occupy different roles (Blenkhorn and Banting, 1991; Hagberg and Kjellberg, 2010). An opportunity for the IMP literature on buyer-supplier episodes is to move beyond the assumption that one actor's role is fixed, and to explain how socially constructed time and social space interact to shape these episodes (Halinen *et al.*, 2012, 2013).

The goal of this study is to examine how buyer-supplier episodes are characterised by their dimensions of time and social space, and how these dimensions interact to impact the criticality of an episode. Moreover, this study examines the patterns of criticality to explore how they affect the overall buyer-seller relationship. It examines the social space by the different roles that the buyer assumes among their episodes, while focusing on the concept of critical time to denote the temporal context. The study examines critical episodes from the buyer's perspective through a case study of a small retailer, referred to as BikeSmart, and five of their key suppliers. Data consist primarily of over 2,000 emails, yielding 75 "critical" episodes that occurred within the retailer's two email accounts: one that communicates with suppliers' accounting departments (BikeSmart Accounts), and one focused on procurement with supplier sales managers (BikeSmart Sales). Email data are complemented by retail archival material, and a two-week field study at the retailer to gain an understanding of the nature of each buyer-supplier relationship, and research context (Edmondson and Mcmanus, 2007; Uzzi, 1997).

This study builds on previous work of Schurr *et al.*, (2008) by examining critical episodes and how they affect buyer-supplier relationship in terms of time and social space across several types of episodes, without limiting the focus to those that lead to dissolution; on Abrahamsen *et al.*, (2012) and La Rocca *et al.*, (2017) in building an understanding of how actors perceiving their multiple roles can define the social space; and on the work of Edvardsson and Strandvik, (2009) and Halinen *et al.*, (2012) in showing how critical times, as a punctuated period, impact episodes and relationships in conjunction with the social space. Results show that the patterns of episode dimensions are different depending on the email account observed, and thus the role and social

space that the buyer occupies. When interacting with the accounting department, the buyer assumes a more accommodating and apologetic demeanour, with a higher frequency of behavioural criticality. When the buyer is in the procurement role, they are more demanding and aggressive, with more affective criticality. Moreover the study highlights critical times as turning points or periods where the supplier can either adapt their service to accommodate the buyer's difficulty, or create a future situation of potential stress and relationship deterioration. The interaction of time and space leads to complex and multifaceted changes in buyer-supplier relationships. Five patterns of these dimensions are highlighted in the discussion.

This paper begins by highlighting some of the literature on contrasting business-to-business relationships with exchange episodes, before moving onto how social space and time can impact the criticality of episodes. It then describes the study's methodology, before presenting the results and discussion. Finally, the paper highlights the implications for research and managers.

Theoretical Foundations

Relationships versus episodes

Understanding the buyer-supplier interaction is at the heart of the IMP research field. There has been extensive research linking episodes to wider interfirm relationships (Håkansson, 1982; Håkansson and Waluszewski, 2013), yet the processes within these interactions must still be more closely analysed (Guercini *et al.*, 2014; La Rocca *et al.*, 2017; Schurr, 2007). One may think of an exchange relationship over time as a series of discrete exchange episodes that result in different outcomes (Håkansson, 1982). Generally, relationships with suppliers can be of higher or lower involvement, representing a higher or lower occurrence of activity links, resource ties, and actor bonds, respectively (Gadde and Håkansson, 2001).

Episodes represent a shorter-term exchange, while relationships represent long-term interaction processes (Dwyer *et al.*, 1987; Holmlund, 2004). Relationships refer to the ongoing adaptation of processes, and the establishment of roles and responsibilities resulting in rules and procedures to control the exchange and evaluate the result (Holmlund, 2004). The state of a high-involvement relationship is one where the relational variables such as trust, commitment, and the establishment of exchange norms have been well-engrained through positive outcomes of repeated exchange episodes (Blau, 1964; Cropanzano and Mitchell, 2005; Lambe *et al.*, 2001;

Morgan and Hunt, 1994). Relationships are socially constructed through repeated interfirm interactions, and exist on a higher level of analysis than episodes (Biggemann and Buttle, 2009). In other words, the hierarchy of interaction levels dictate that episodes feed into the state of the overall relationship (Lambe *et al.*, 2001; Schurr, 2007). Relationships are therefore dependent on the outcomes of the individual interaction episodes, and how the actors in these episodes perceive the outcomes (Holmlund, 2004; Håkansson, 1982; Håkansson and Ford, 2002; Schurr, 2007).

Buyer-seller episode definitions and boundaries

Episodes reside on a specific conceptual level of the business-to-business interaction. They represent the content of communicative exchanges (Olkkonen *et al.*, 2000). A common aspect among definitions of buyer-seller episodes is that they involve one or more key purposes. Episodes involve an exchange of 1) goods or services, 2) information, 3) financial instruments, or 4) socially valued experiences (Holmlund, 2004; Håkansson, 1982; Håkansson and Waluszewski, 2013; Johanson and Mattsson, 1987; Schurr *et al.*, 2008). Episodes are bounded sequences of actions that contain a beginning, internal structure, and an ending that can form a nameable unit (Biggemann and Buttle, 2009). Examples of episodes include a buyer requisition, requested quotations, notices of delivery, reports, acknowledgement of receipt, communication of problems, complaints, and rejections (Biggemann and Buttle, 2009). Episodes are defined by a particular time period, although this boundary is not clear within the literature. Holmlund (2004) stated that episodes are “short term aspects of a relationship” (pg. 281). Moreover, it is suggested that episodes are a string of acts among business associates that are “closely connected in time” (Schurr, 2007, pg. 162).

In principle, episodes have a wider effect on the overall relationship (Berends *et al.*, 2011). Episodes can be generative, neutral or degenerative, representing positive, neutral and negative effects on a relationship, respectively (Schurr 2007). Generative episodes are the result of promises and promise fulfilment, which lead to increased trust and commitment (Morgan and Hunt, 1994; Schurr, 2007). Conversely, degenerative episodes have a deleterious effect on the relationship, such as establishing a sales agreement with a competing supplier (Schurr, 2007). Previous episodes also affect an actor’s perceptions of the current episode, and this perception is closely linked to the age of the relationship (Biggemann and Buttle, 2007). Therefore, the

outcomes of episodes and interactions cannot be studied irrespective of surrounding time or space (Halinen *et al.*, 1999; Mason and Leek, 2012; Medlin, 2004; Schurr *et al.*, 2008). To understand episodes, one must consider the actions and communication that occur within them, as well as their structural and surrounding environmental factors (Olkkonen *et al.*, 2000). The next section will outline how previous literature has addressed this challenge through the concepts of time, social space, and how their interaction affects and episode's outcome – thus its criticality.

Episode criticality

An episode's outcome is its criticality, with one of higher criticality triggering the perceptual attention, behavioural attention, or both from the actors involved (Holmlund-Rytkönen and Strandvik, 2005). Derived from the critical incident technique by Flanagan (1954), episode criticality is linked to similar concepts such as disruptive episodes (Lui and Ngo, 2005), and significant episodes (Edvardsson, 2000). Their common thread is that they are situations beyond the “normal” expected exchange processes, or the implicit and explicit exchange guidelines. In other words, if actions or responses employed by one party are outside of the expectations of the other, the resultant relational effect is positive or negative to varying degrees (Thomas *et al.*, 2015).

The majority of research in this area considers episodes of high criticality, specifically those that lead to relationship dissolution. However, not all episodes completely derail or bring about change in a relationship, but may still have a degree of criticality. Researchers should expand their understanding to include episodes that have the potential to lead to future changes in the actor bonds, resource ties, or activity links between firms due to changes in the underlying perceptions of the actors involved (Schurr *et al.*, 2008). Therefore, episodes are not simply a binary “critical” or “non-critical” state. An episode of higher criticality may not necessarily be linked to one specific episode itself, but the cumulative outcome of a sequence of preceding episodes. The episode can release built tensions, and therefore change the relationship. It is not the mere string of events, but how the actors react to it (Halinen *et al.*, 1999). The reaction from these cumulative outcomes manifests as the “last straw” for managers or actors in dyads (Halinen *et al.*, 1999). Moreover, non-critical episodes serve to maintain relationships, and relationships can slowly deteriorate if non-critical and neutral episodes do not take place in a timely manner

(Schurr, 2007). A critical episode may be one in which one party reacts to a lack of expected non-critical episodes to maintain a relationship. For example, a simple non-critical sales call may not change resource ties or actor bonds within a relationship, but a buyer may begin to view a particular supplier more negatively over time if such calls are not made (Schurr, 2007).

This paper argues that an episode that has the potential to create change in a relationship can be considered critical, yet the degree of criticality determines the degree of this change. As Edvardsson *et al.*, (2014) stated “...*the effects of critical incidents are the result of a combination of factors associated with the situational and temporal context of the relationship, and may not result in switching or other negative business effects* (pg. 286).” Therefore, time and social space determine the criticality of an episode (Schurr *et al.*, 2008), and this will be done by exploring the contexts of critical time and buyer roles, respectively. The space and time dimensions must be considered interdependent of one another, as actors base their future decisions and activities on their present interpretations of their past experiences (Medlin, 2004; Håkansson and Waluszewski, 2013).

Critical times as the temporal context

In the consideration of time in interfirm interactions, Halinen *et al.* (2012) proposed “*the broadening of the time dimension by integrating the human time perspective with its notions of time flow and periods into business network research* (pg. 217).” They further argue that the human and event time punctuate both a researcher’s and manager’s interpretations of relationship processes. The socially constructed view of time as viewed by events is useful in understanding and delineating the process and interconnectedness of episodes. The concept of critical time complements this perspective. Critical time is defined as “*a period of time with increased sensitivity in a business relationship that may change the actors’ attitude and/or behaviour in the relationship*” (Edvardsson and Strandvik, 2009; pg. 327). It might be considered as a “Type B” time by Araujo and Easton (2012). It is related to the terms of relationship stress (Holmlund-Rytkönen and Strandvik, 2005), relationship unrest (Good and Evans, 2002), turbulent relationship times (Edvardsson *et al.*, 2014) or “moments of truth” (Tax and Brown, 1998). Critical times might emerge from repeated perceived negative non-critical interaction episodes which eventually creates an issue that causes a critical time or relational stress (Holmlund-Rytkönen and Strandvik, 2005).

In theory, episodes of high criticality are more likely to occur within this timeframe. A critical time has no pre-defined standard duration of time, but ends once the underlying issue is finally resolved (Edvardsson and Strandvik, 2009). Most studies in this area consider critical times as those that occur due to actions within the relational dyad (Holmlund-Rytkönen and Strandvik, 2005; Schurr *et al.*, 2008). They do not often include the fact that it may also originate from outside the relational dyad for one party only. In a buyer-seller relationship, an issue that causes the buyer stress may originate from an external source, yet will have an effect that carries over to a particular supplier relationship. The interpretation and communication of the external issue is then transmitted into a relationship dyad through actors via the interaction episode (Halinen *et al.*, 1999; Olkkonen *et al.*, 2000). Conversely, the start of critical time for one actor takes place through the actions or responses of the other partner within the episode itself (Edvardsson and Strandvik, 2009). These times denote strain on the interfirm relationship, or for one actor only - causing tensions and a higher degree of stress (Holmlund-Rytkönen and Strandvik, 2005). Hence critical times frame moments where the actions of an actor might *enhance* the criticality of an episode.

Buyer roles as the social space

The varying nature of a buyer's role can be a fruitful avenue for explaining the social space of a buyer-supplier episode (Abrahamsen *et al.*, 2012). Role theory has been widely used in organizational studies to explain behaviours based on social systems and pre-planned norms. Within role theory, it is argued that an actor's role (as a supplier, customer, partner, or competitor) guides their behaviour (Johansson, 2012). Mattson and Johanson (1992) contended that an actor's action must be considered alongside their attempts to change or maintain their relationships within their environment. This might include a buyer's actions to manage their supplier relationships. Anderson *et al.*, (1998; p. 172) use the concept of roles to "*express such actor activities as emanate from the creation of sense-making processes that characterise each actor's own intentions and interpretations.*" Roles are central in understanding behaviours and tactics of individuals in a firm's purchasing centre (Webster and Wind, 1972). Roles imply considering how an actor perceives their own position and decisions on how they might enact change in a relationship (Abrahamsen *et al.*, 2012). Literature in role theory places a focus on how an actor's role guides its behaviour, which is partially determined by the expectations of

surrounding actors (Biddle, 1986). Expectations are prescriptions and prohibitions for an actor occupying a role (Webster and Wind, 1972).

Advancing IMP research can be partially facilitated by assuming that an actor's role is non-fixed (La Rocca *et al.*, 2017). Studies of marketing practitioners argue that the roles of the marketer should not be taken as fixed, and researchers should “*not restrict agential variation in advance*” (Hagberg and Kjellberg, 2010, pg. 1036). The roles of buyers have been studied to help explain the nature of their exchange relationships. The object or the role that an episode plays in the relationship can adjust the nature of the exchange itself (Sarmiento *et al.*, 2015). Furthermore, Blenkhorn and Banting (1991) proposed that more “traditional” versus more “modern” roles of buyers in buyer-supplier relationships can affect their negotiation approach, and attitude towards the supplier, among many other characteristics.

Research Design & Methodology

Research Design

This research employed an embedded case study design of a small retailer (hereafter referred to as BikeSmart) and five suppliers. This approach is ideal for exploring complex business-to-business relationships, and to give the freedom to attach deeper meaning to the collected data (Gummesson, 2003). The choice of five suppliers allow for a degree of replication, and to make more robust theoretical contributions (Yin, 2009). The study combined text from emails between the retailer and their suppliers, along with a field-based study where I spent two weeks at the retail firm during July of 2016. Collecting field data allowed me to observe how emails were written on a daily basis, and discuss ongoing buyer-supplier issues with employees. This lead to a much deeper understanding of the research context (Snow *et al.*, 2003).

The unit of analysis consisted of the individual interaction episodes, which were analysed both on an individual level and collectively at the buyer-supplier relationship level. The boundaries of the episodes stem from Biggemann and Buttle's (2009) definition as “*a sequence of interactions that form a nameable unit, such as ... making a purchase, executing a perfect order, making a late delivery, collecting payment* (pg. 556).” An episode using email data consisted of a specific thread that discussed one apparent exchange issue in a relatively short period of time. An episode involved human actions, responses to non-human actions, or both (Makkonen *et al.*, 2012). Since

each thread is usually linked to a specific subject, they are easily nameable and bounded. In almost all cases, a new email thread signalled a new subject, and therefore I limited the boundaries of episodes to the original structure of email threads.

Five suppliers were chosen to make valid comparisons and contrasts that could be generalised across the retail firm's exchange episodes (Eisenhardt and Graebner, 2007; Yin, 2009). All suppliers provide the same category of products to the retailer. The duration of each buyer-supplier relationship exceeds five years. Research suggests that this would be a sufficient timeframe for relational norms, trust, and commitment to develop (Lambe *et al.*, 2001). Therefore each supplier relationship has reached a stage where these relational constructs have had an equal chance to be established (Dwyer *et al.*, 1987). This should also alleviate differences in the perception of events with higher criticality due to the age of each relationship (Biggemann and Buttle, 2007).

Suppliers were chosen as those who have the most interaction episodes with the retailer. As shown in Table 1, these suppliers also make up a large share of the retailer's purchases. The names of the suppliers have been changed to protect their privacy, and consist of Lexus, Kirk, Promo, Spectre, and Cryo. BikeSmart was chosen due in part to its size, as interacting with suppliers is of upmost importance to small retailers (D'Amboise and Muldowney, 1988). The case firm was also a well-known contact of mine. This was necessary, as accessing and analysing email data is a sensitive endeavour, requiring special access. The smaller number of actors for the retailer of this size also provides a setting to clearly demonstrate how these actors can behave differently across critical episodes.

Data Collection

The data collection and analysis procedure followed a similar process to Holmlund-Rytkönen and Strandvik (2005). Email data were collected directly from the retailer's email accounts. Email has become a common method for interactions between buyers and sellers (Parlami and Geiger, 2014). Analysing episodes within emails is a useful process, as emails allow actors to deliberately convey information and their requests more clearly, and without interruptions (Mason and Leek, 2012). Examining formal business interaction episodes through emails allowed me to make interpretations and draw meaning from their interaction process through language and discourse, and reconstruct the social reality in the interaction (Olkkonen *et al.*,

2000). Analysing and coding past emails that are “present” interactions at the time they are written also has the advantage of combining retrospective and real-time analysis, as highlighted by the “steering wheel” approach (Halinen *et al.*, 2013).

To collect the data, I performed a search in each of the small retailer’s email accounts under the varying names of the supplier representatives, and the supplier company name. All emails were saved in *.txt* file format, and sorted into their respective threads for further analysis. Duplicate emails were removed from the dataset, and automatic emails from suppliers were separated. Emails were collected from the two email accounts of the retailer: those that dealt with procurement through the supplier’s sales people/account managers and those dealing with the accounts receivable departments. These will be hereafter referred to as *BikeSmart Sales* and *BikeSmart Accounts*, respectively. This process yielded 444 exchange episodes between the years of 2012 and 2016, with a mean of 4.7 emails per episode. Each account generally features different actors, however some actors communicate across both email accounts. Additional documents collected from the retailer included financial statements, trade agreements, and all order and sales data for the relevant suppliers. A summary of each supplier relationship can be found in Table 1.

Table 1: Supplier sales and relationship summary

Supplier percentage of BikeSmart's annual purchases (from financial data)					Description of supplier relationship in 2016 (from BikeSmart field-study data)
Supplier	2012	2013	2014	2015	
Lexus	8.5%	8.7%	6.0%	7.3%	<i>Level of closeness:</i> Frequent communicators <i>Performance:</i> Efficient ordering but inefficient and frustrating payment procedures, wide product range
Kirk	9.7%	3.4%	10.2%	7.4%	<i>Level of closeness:</i> Helpful sales people, understanding, common goals <i>Performance:</i> Flexible and cooperative on payments
Promo	7.3%	10.0%	10.7%	18.5%	<i>Level of closeness:</i> Willing to jointly solve problems, trusting, and "best to work with". <i>Performance:</i> Good product, flexible, open communicators,
Spectre	8.4%	11.8%	9.7%	10.9%	<i>Level of closeness:</i> Less frequent communicators, impersonal <i>Performance:</i> Rigid with payments, but flexible with product warranties, efficient, wide product range
Cryo	6.2%	11.8%	3.7%	2.6%	<i>Level of closeness:</i> "A numbers game" (uncaring), embarrassed to ask Cryo "dumb questions", rigid. <i>Performance:</i> High-quality product, poor communicators
Total*:	40%	46%	40%	47%	
Total Sales Growth**:	-	+2.5%	+6.7%	-3.0%	

* Percentage of overall BikeSmart purchases from the five focal suppliers

** Year-over-year BikeSmart total (all suppliers) percentage sales growth or decline with 2012 serving as the first base year

Email data were complemented by a two-week field-study at the retail firm. The field-study was ethnographic in nature, which allowed for a comparison of events in the observational and archival data (Uzzi, 1997). It also provided a deeper understanding of the processes occurring within the retail firm (Snow *et al.*, 2003). Informal interviews were conducted with retail employees to choose and gather information on supplier cases. Interviews addressed how exactly the relational climate was for each supplier. This was accomplished through open ended questions such as: "how is the relationship with this supplier?", "how did the relationship begin, and how has it developed over time?", and "what constitutes a positive or negative interaction?" Employees were also asked about the various struggles and accomplishments that the retailer experienced throughout the previous four years, how they interpret different interactions with suppliers, and what types of issues have impacted the retailer as a whole. I asked them about the time periods where they had a particularly challenging selling season, and the underlying reasons for this. This allowed me to determine the intervals of critical times for the retailer. Notes from

the interviews and observations were recorded in a notebook, and then transferred to electronic format for analysis.

Data Analysis

Data interpretation required constantly going back and forth between the data and theory through the hermeneutic circle in systematic combining (Dubois and Gadde, 2002; Gummesson, 2003). I applied interpretations to the email text to draw additional meaning during the coding process (Woodside *et al.*, 2005). The field data partially informed these interpretations. Once each email episode (thread) was separated, the first step in the analysis was to determine its criticality, and create a coded description for each episode (Denzin, 2002). This also meant an examination of more neutral episodes to establish a baseline of what entailed a “normal” or “routine” episode (Schurr *et al.*, 2008). A total of 75 out of the 444 episodes were determined to be outside of the normal range of episodes, and were classified as critical (see Table 1). These episodes either displayed a clear emotional or affective response, or a behavioural or intended behavioural response that would likely change the relationship in a positive or negative way. For example, one email that contained the phrase “*I am absolutely livid !!!!!!!!!!!!!!!!!!!!!*” or “*WTF?*” displayed clear negative affective responses with no apparent behavioural changes. Another email from the buyer containing a clear indication of positive behavioural changes included the phrase “*...very excited about the Promo line! Very nice and home-grown appeal - Also slightly curious in [selling] (additional brand), as we are a high-end road [bike] dealer*”, and thus was coded as high in criticality from a behavioural perspective. The criticality of the episodes was coded from the buyer’s perspective. Episodes were compared and contrasted between BikeSmart Sales and BikeSmart Accounts emails, since the purposes, roles and space of the episodes were so closely linked to the different email accounts. Episodes were also sorted as those that occurred within and outside of the described critical times using the timestamp on each email, the general subject of the episodes (money, product/service, information, social contact) through my own interpretation, and whether the criticality was positive or negative in nature.

The second step in the analysis was to identify trends in the frequencies of the above characteristics. Coded episodes were counted for their frequencies in tables, and also arranged through a graphical representations inspired by Schurr *et al.*, (2008) (see Figure 1). Episodes and critical times were tied together to observe the effects within and across the supplier

relationships. As seen in Table 1, I combined interview data with the collected financial data to paint an overall picture of each dyadic relationship. This was briefly described by the interview participants, and categorised as “the degree of closeness” and “performance”, in line with classifications in similar studies (Fleming *et al.*, 2016). I also triangulated the interview data outlining how BikeSmart viewed critical times in relation to their overall relationship with the email data occurring during and following critical times to interpret how such episodes would affect the relationships with each supplier (Yin, 2009).

BikeSmart Description

BikeSmart is a small retailer in rural Canada. Sales for the years of 2012 to 2015 remained under 1 million Canadian dollars, placing it in the category of a small firm. It is primarily a high-end bicycle retailer, but also offers Nordic skis, snowshoes and clothing for the winter months. BikeSmart was founded by two entrepreneurs in 2003, yet one partner sold their portion to the current sole shareholder of the corporation. The financial position of the retailer has fluctuated during the time period under study. BikeSmart focuses on having inventory on-hand for consumers, and has worked with suppliers to accommodate the financial strain that accompanies this focus.

The owner and employees often develop close ties with specific sales people or account managers within the supplying firms. BikeSmart employees regularly communicate with two to three different supplier departments. The BikeSmart Sales email account is used to complete product orders and bookings through a sales representative assigned to BikeSmart. The BikeSmart Sales email account will also communicate with a general internal customer service department, concerned with handling warranty and more standard customer service issues for all retailers. During the observed period, two to four employees would communicate through the BikeSmart Sales emails exclusively. This includes the owner, who also communicates using the BikeSmart Accounts email account. The BikeSmart Accounts email account communicates with suppliers' accounts receivable departments, and deals with financial issues apart from negotiating prices. A supplier's accounts receivable department has the authority to stop the shipment of orders if an account is not properly serviced. This structure holds true for each supplier case. One BikeSmart employee plus the owner would communicate exclusively using

this email account. Therefore, there are multiple actors using each email account on both sides of the dyad, with the owner being a common actor among all interactions.

Supplier relationship summaries

Promo is a bicycle manufacturer and distributor. *Promo* was described by all employees to be BikeSmart's "best" supplier, which is confirmed by a substantial increase in sales orders from 2012 to 2015. Data revealed that this was due to a high-quality product, and close working relationship. *Promo* account managers will often call or write BikeSmart to simply see if there is anything that can be done to improve the overall business and relationship. They are open to working closely with the BikeSmart owner, and are described as trusting BikeSmart's ability to grow and sustain their retail business.

Spectre is the largest of BikeSmart's key suppliers by a wide margin. They are a manufacturer, offering a full range of high-quality bicycles, parts, and clothing. Due to their size, they have efficient ordering and delivery systems, and well-established procedures for handling problems or complaints. Their size also leads to a degree of rigidity in terms of payment procedures, however their size also suggests that they can handle small amounts of delinquent payments. The degree of automation through online ordering platforms also limits their frequency of communication with BikeSmart employees. Email communication occurs primarily to solve special issues or problems.

Kirk is a Nordic ski manufacturer and distributor, with a positive overall relationship with BikeSmart. The volatility in sales as seen in Table 1 was attributed to variations in the winter climate, and inventory levels of the product. For example, in 2013, the BikeSmart owner claimed that they had a large inventory from the previous year, and therefore did not need to purchase much for that season. The distinct features described for *Kirk* was their common goals, and willingness to give BikeSmart personalized service. They deal with products that vary greatly with respect to the weather, and are very understanding when BikeSmart's sales are affected by adverse weather.

Lexus has a comparably stable relationship with BikeSmart, yet have experienced a slight decrease in overall sales. *Lexus* is a leading national distributor in bicycle parts and accessories. They have an efficient and friendly staff for procurement, and are very frequent communicators.

However they are also clearly the most frequent and persistent communicator when payment is required. They are not always the most flexible in this aspect, and this has been the root of some frustration for BikeSmart employees. However their wide product assortment and high margins also have kept them as a strong and stable supplier for BikeSmart - although they have been searching for an alternative supplier in recent months.

Finally, *Cryo* is a high-end road bike manufacturer who has experienced the clearest decrease in overall sales for BikeSmart. While this was partially due to overall market trends, their level and quality of communication also deteriorated significantly since 2015, according to the BikeSmart owner. They have also recently disappointed BikeSmart on a number of recent sales promotions and delivery issues as the field study was taking place. Overall, while they provide a superior product, they have recently been less personal and open than other suppliers. In a conversation at BikeSmart, the owner mentioned that he is “embarrassed to ask them dumb questions”, while with other suppliers he is not worried about this issue.

Results

Table 2 shows how the 75 episodes were classified, along with their frequency in each email account. It also separates the emails into those that occur in critical times, and the frequency of behavioural or affective criticality. The emails in each account addressed topics that are aligned with their intended purpose. Money was the primary concern for BikeSmart Accounts, with 91% of the episodes concerning this purpose. Similarly, BikeSmart Sales emails addressed product or service-related issues for 83% of critical episodes, and exchanging information for 50% of the episodes. Episodes in BikeSmart Sales often addressed delivery problems, seeking product information, and agreements on shipping. Episodes in BikeSmart Accounts solved issues such as establishing payments schedules, handling late payments, and solving other financial-related problems.

Table 2: Supplier email episode summaries

Supplier	Total no. of emails	Total no. of episodes	No. of critical episodes (total)	No. of critical episodes (Accounts)	No. of critical episodes (Sales)	Occurring within critical time	Criticality
Lexus	713	160	22	18	4	17	Affective: 5 Behavioural: 17
Kirk	402	86	15	7	8	11	Affective: 3 Behavioural: 12
Promo	513	100	17	9	8	7	Affective: 5 Behavioural: 12
Spectre	218	55	9	7	2	1	Affective: 2 Behavioural: 7
Cryo	233	43	12	4	8	4	Affective: 2 Behavioural: 10
Total:	2079	444	75	45	30	40	Affective: 17 Behavioural: 58

To begin, I will examine the impact of social space and time on the criticality of the episode separately, which will be followed by outlining how the interaction of time and space impacts each supplier relationship.

The social spaces of BikeSmart Sales and BikeSmart Accounts

The multiple buyer roles observed *across* both email accounts occur in different and dynamic business spaces, yet roles remain relatively stable over time *within* each email account. This is partially explained by the field-based observations. Observations revealed that the role the buyer plays is somewhat determined by the circumstances and contexts under which the email interactions take place. BikeSmart Accounts displays a situation where the buyer is in a less powerful position, as BikeSmart is generally in a position where they owe money for products being carried in their inventory. The buyer realises that it is their responsibility to pay suppliers, and that the supplier ultimately has the ability to stop the flow of product to the retailer. While the buyer holds some expectation that the supplier must be flexible for the retailer, the primary expectation is that the buyer must make timely payments. If one BikeSmart actor is assessing the financial situation of the retailer and must communicate with the supplier through BikeSmart Accounts, they will often write a more deliberate and time-consuming email to persuade the

supplier to help them. A more deliberate email written to BikeSmart Accounts reflects the need to address a more complex episode that is less time-sensitive. This will likely change the nature of the episode. The role of the buyer in this account is more apologetic, accommodating, deliberate, and appealing towards the supplier. If we take Spectre as an example, a typical email written regarding payment is as follows:

From BikeSmart:

I know you are very busy; I also realize we are on your "naughty" list – no joke.

It would be great if we could communicate regarding our orders and Payments etc... As I have said below I am confident we can get things sorted. I realize the pressure is on you as it is on us at the moment to get things to an acceptable balance. The priority is at the forefront and this time we are capable.

Please call me tonight or tomorrow at the store or my cell is (number) I am in (City name) Friday but would be happy to take a call.

Cheers

BikeSmart Accounts

This space changes for the BikeSmart Sales email account, and is reflected in a change of the buyer's communicative actions. For one, this context gives the buyer a sense of being in the more powerful position, as they are truly playing the "customer" role in this context. Suppliers in this space have the role of persuading buyers to increase their product orders. Employees communicating through BikeSmart Sales write emails while on the sales floor in response to quick and sudden needs for information, and to make impromptu orders in minimal time. A quick and urgent email written on the sales floor requires an equally quick response from a supplier, thus an expectation that the supplier can effectively respond. Once again, these patterns exist across the same actor in each email account. For example, the owner of BikeSmart will handle email episodes on the sales floor during a busy day, and write deliberate emails only when time allows. One email of higher criticality for BikeSmart Sales with Spectre is as follows:

From Spectre Sales:

Hello BikeSmart Sales,

I spoke with (employee name) in our credit department, based on the communications she had with you guys she gave me the thumbs up to proceed with the order. We are looking at 4 weeks productions.

Thanks

Spectre Sales

From BikeSmart Sales:

Jeepers!

This was March ol man, wtf, you gotta communicate if there is an issue!!! We had no idea, I'm ticked.

BikeSmart Sales

The switching of roles is most clearly observed with the owner of BikeSmart due to their communication across both email accounts. However, these differing roles among the other employees who communicate exclusively through one account or another are aligned with these observations. It was also apparent in the email data that the different roles across both accounts did not change significantly over the observed time period, which suggests that different roles remain relatively stable within the BikeSmart Sales or the BikeSmart Accounts spaces.

As a result, the type of criticality varied across both email accounts. While neither category revealed that highly affective episodes were the dominant form, 33% of episodes in BikeSmart Sales were more affective and emotional, compared with 16% in BikeSmart Accounts. Product/service related episodes often dealt with issues that were unforeseen, and issues that could potentially harm the service of the retailer towards their customers in a very tangible way. For example, a supplier not correctly fulfilling an order that was made for a particular consumer would often be met with high levels of emotions and frustration. In an email to the Promo supplier, after placing a special order via telephone for a customer, BikeSmart Sales wrote:

From Bike Smart:

Promo!!!

The ball has been dropped on us again !!!! We ordered XXL bike July 16th and the bill of lading was just created today !!! why!!! My customer was expecting that today or early this week.

I also find it extremely difficult to reach you.

Can the bike get here quickly ?????????????????????? 2 day ship and can you get me that discount now that it is July 28, 2014.

BikeSmart Sales

Such messages display a very clear impression that the issue was of high affective criticality. While not all episodes display this higher degree of emotion and frustration in the email communication, BikeSmart Sales had a much higher frequency of affective and audible discontent with the suppliers in negative episodes. These levels of emotion and affective

criticality are not observed as frequently, or in the same proportion of episodes as BikeSmart Accounts. These episodes, while addressing different issues in many cases, often contain much more reasoned, less emotional messages, but more often indicate a behavioural criticality. Data suggested that the buyer in the less powerful role must “accept” the terms of the supplier when it comes to making payments. If the supplier continues to play the powerful role in this space, the buyer has no choice but to change their behaviour.

Critical times as a temporal context

The data revealed that episodes of higher criticality were also associated with the critical times as perceived by the buyer. Through the interviews with BikeSmart employees, I identified three time periods from 2012 to July 2016 that were considered “critical”. Approximately half (53%) of the 75 episodes with higher criticality occurred within these time periods. The three time periods, A, B, C, run from the beginning of the observed period until the end of 2013, the final quarter of 2014, and the winter/spring months of 2015, respectively. Informants stated that these periods represented times of financial difficulty for the retailer. Critical time A stemmed from financial strain due to the owner opening another business – a coffee shop attached to the BikeSmart retail space. It took almost two years for this business to be profitable, and required allocating some resources from BikeSmart to support this business. After 2013, the coffee shop was able to achieve ongoing profitability. Critical time B arose from a slow period of sales during the crucial Holiday season. During this time, BikeSmart would carry more inventory, and the requirement to pay for this inventory resulted in a critical time where BikeSmart struggled to meet these financial requirements. Finally, critical time C arose from another period of slow sales which was attributed to the weather, according to the BikeSmart owner. During this critical time, the winter in the area stretched into the spring months, which is typically a busy season for new bicycle purchases. Snow and cold weather severely hampered sales, and similar to critical time B, BikeSmart struggled to pay suppliers in a timely manner. The following email illustrates a portion of the type of episode that might occur, and was written just following critical time B, which resulted in a new payment schedule being agreed:

From: BikeSmart Accounts

Spectre Accounts,

I am very sorry that I did not get a payment through during Christmas week;

It was looking good, however we are desperately awaiting snow to start rolling our winter equipment. It has been a very stressful holiday retail season. Our weather has been infinitely uncooperative for our winter business. We have no snow and are well stocked with winter equipment. We have been struggling the last few weeks even with our winter suppliers. This is unusual given our normal 14 annual feet and being Canada's highest snowfall cities.

Please be patient.

I will be in touch as soon as I can, promise.

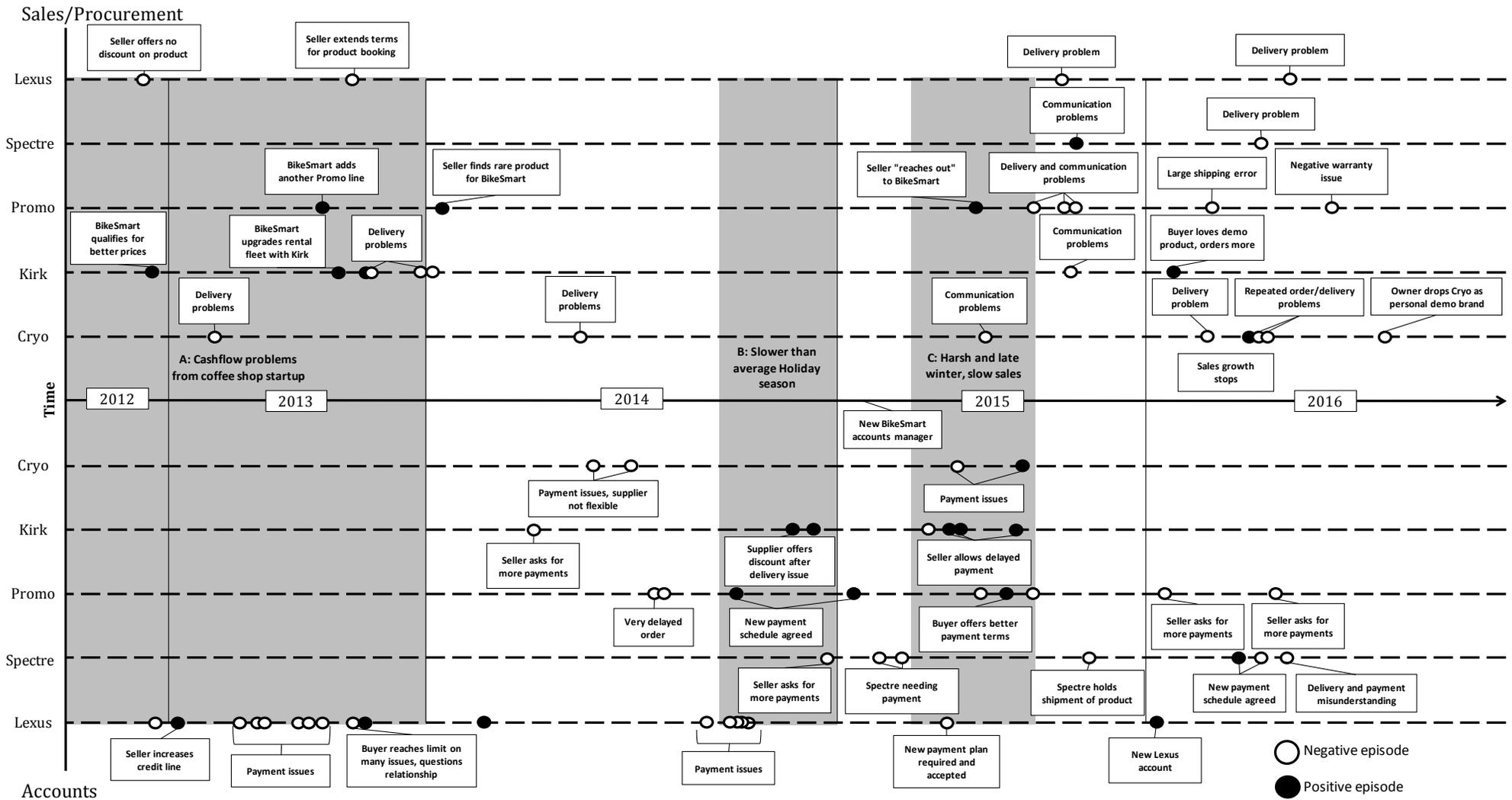
BikeSmart Accounts

Interestingly, these critical times were described primarily as issues that related to BikeSmart Accounts, which also reflect the nature of the critical time, and give the greatest potential to begin the process of change in the relationship. This gives an additional indication of the crucial importance of suppliers, which is to be flexible with respect to payment, especially during times when the buyer truly needs the support. However, during critical times the buyer can also be somewhat frustrated with the sales representatives, and quickly change or sell competing brands. For example, in an episode within critical time C, the sales representative had not been communicating effectively with the buyer. The buyer was requesting a particular model of bicycle for a customer, with the seller replying too late. When the seller asked a follow-up question, the buyer simply replied: *“Negative, needed to know yesterday, we have sold a different brand. What’s up with our shipping report?”*

Interaction of social space and critical time

It is the combination of episodes occurring in critical times and social space that serve as an explanation for the continuation and changes in the five supplier relationships examined, however the patterns among how they lead to this change varied. To display the data graphically, Figure 1 shows each of the examined episodes on a timeline for each supplier, highlighting the critical times with grey bands, and distinguishing between the BikeSmart Sales and BikeSmart Accounts emails.

Figure 1: Graphical representation of episodes across five suppliers



The timing and space of the episodes examined, when considered alongside the nature of the individual buyer-supplier relationships, experienced a slightly different pattern across all five cases. First of all, *Promo* was described as the number one supplier for BikeSmart. Figure 1 shows that there was a mix of both positive and negative episodes with Promo Accounts, especially in critical time C. One of these episodes follows from a request for payment from Promo Accounts:

From Promo Accounts

Hi Promo Accounts,

I understand where you are coming from. Please keep in mind that we have approximately \$36,000 worth of Promo inventory still on our sales floor and the likelihood of selling all of these bikes in the next 3 weeks is slim. I've unfortunately overextended ourselves in those weeks which is the reason I'm asking for this reshuffling. I cannot NOT pay other suppliers who we don't have inventory left with, in fairness. An alternative could be to send back some Promo inventory, if need be. Best case scenario would be to redistribute throughout December, otherwise if you are not willing to work with us I will be forced to have (BikeSmart owner) stop payment on those checks.

This is obviously not the way we would prefer to work with you as we have been very supportive of the Promo line and appreciate our continued relationship.

Thanks,

BikeSmart Accounts

From Promo Accounts:

Good day BikeSmart Accounts

I am sorry but that's impossible. Like I had said before, we were extending already and also, we are still missing 5486.83\$ to cover invoice that are due for now. I am already losing our financing on your account because of the late payments.

BikeSmart Accounts

While episodes like this that had the possibility of raising tensions, the Promo sales representative contacted BikeSmart several times to see if there was anything they could do to help during this difficult time. They reached out in one instance, stating “...*is it getting better on the sales floor? I look at the situation, and I am worried for next year. We haven't talked lately. I am on the road this week, but I will try to give you a call next week. If there is anything I could do to help, let me know.*” While it is a small gesture, it appears to make the difference when maintaining the relationship with BikeSmart. This was confirmed through the conversations with BikeSmart employees.

For *Lexus*, the data revealed a different pattern that has slowly attributed to its decline in sales and involvement with BikeSmart. Lexus had few episodes with BikeSmart Sales during critical times, but had the highest frequency of negative episodes during critical times A and B with BikeSmart Accounts. These patterns suggest that while Lexus performs adequately in one space, the space pertaining to BikeSmart Accounts was significantly unfavourable. Each negative episode involving problems making payment appeared to accumulate, resulting in BikeSmart questioning the viability of the relationship. This is made clear in an email written near the end of critical time A:

From BikeSmart Accounts:

Hey Folks,

We have made a conscious effort this season to place a larger booking to consolidate our brands, as well as increase our weekly parts orders rather than with other major suppliers, thinking it would be easier to maintain and control accounts given a long history etc.

1. We are becoming increasingly frustrated with our dealings with Lexus. We have dealt with your company for over 10 years and not once left an account outstanding during good and bad years.

2. We are always within a reasonable timeframe paying our account Every week it is a negotiation on what happens to get parts...this is fine. The terms are continuously more confusing and with constant effort on both (buyer and seller accounts employees) front we hang up the phone feeling like "What just happened" or "why did that change from last week?"

... (5 more discussion points)...

8. We will have to adjust our mid-season booking as it will not be shipped for another 3 weeks, We will find the products we need elsewhere and simply get what is necessary from Lexus.

9. Furthermore where was Lexus at (Bicycle trade show)???? No opportunity to see new product? This along with our season has lead us to seriously consider what door to open for the upcoming 2014 season.

Our company is constantly growing and changing just like yours and if negotiation is not on the table for longstanding relationships then what is the point in that valued relationship; we certainly are questioning it.

Thank you

BikeSmart Owner

The frequency of negative episodes between Lexus and BikeSmart Accounts clearly indicate that this is the problematic area, especially during critical times.

As stated earlier, *Spectre* experienced a slight increase in sales over the observed period. Interestingly, they had very few episodes occurring the BikeSmart Sales space, yet experienced some negative episodes in close proximity to critical times A and B (but few within them). While *Spectre* did display some inflexible behaviour during this time, they also addressed any issues in the BikeSmart Sales space in a timely and efficient manner. Overall they appear to meet the

expectations of the buyer and keep “under the radar” for most situations and critical times. Therefore it is likely that their wide range of products and efficient ordering has solidified them as a prominent supplier.

Kirk was described as the one that was more flexible in terms of extending payments, or allowing delayed payments during critical times. Figure 1 confirms this, with several positive episodes occurring during critical times with BikeSmart Accounts. There is also one notable episode where the supplier offers a discount to the buyer after there were some delivery issues, which illustrates how a supplier’s actors across both spaces work together to address any additional concerns. *Kirk* also shows some instances where there are problems with delivery, yet the flexibility during critical times appear to outweigh these shortcomings.

Finally, *Cryo* displayed a pattern suggesting that episodes during critical times as perceived from the retailer may also lead to a deterioration of the relationship. While *Cryo* provides a superior product, data reveals that their gradual deterioration in the relationship with BikeSmart begins in 2014, where they displayed some inflexibility in their payment requirements. This was exacerbated by a lack of communication, and additional negative episodes that follow in 2015 and 2016 with BikeSmart Sales. This represents a service failure from the supplier, however one can only speculate how exactly this took place. It could be that the supplier deliberately chose to communicate less with BikeSmart once they realised that there were times when the retailer might experience critical times, requiring help from *Cryo*. Nevertheless, shortcomings in BikeSmart Accounts episodes were met with many additional negative episodes with BikeSmart Sales. At the time of the study, BikeSmart was making a considerable shift towards a different road bike brand, indicated by the final episode on that timeline.

Discussion and contributions

The above results show that two different social spaces, along with critical times as the temporal context affect the criticality of the buyer-supplier exchange episode. The social space appears to dictate the type of criticality, while the time enhances the criticality. More importantly, the results explore how the interaction between social space and time affects the interfirm relationship. Consequently, this study answers the calls for research from Schurr (2007) and Schurr *et al.*, (2008) to explore and characterise episodes based on their patterns in time and social space, yet goes one step further in empirically exploring their conceptualisations.

The first discussion point begins with conceptualising the social space in terms of the buyer's role. According to Abrahamsen *et al.*, (2012), comparing and contrasting different actor's perceptions as constructed by their self-identified roles have not yet received much attention by researchers. Moreover, many studies consider buyers only occupying a single role in a relational dyad (La Rocca *et al.*, 2017), while this study examined roles differing within a single firm. This was especially true for the owner, whose actions differed drastically between the two email accounts of BikeSmart Sales and BikeSmart Accounts. To borrow from Blenkhorn and Banting (1991), these roles are closely linked to the "traditional" role of the buyer where the seller must persuade the buyer to buy; and the more "modern" role of the buyer, where they must persuade the seller to provide resources. The communication styles and interpreted actions affected the type of criticality between these two roles. It was clear that as the buyer took the traditional role where the buyer is persuaded by the supplier, there was a much more affective criticality due to a more demanding and aggressive demeanour. When switching to the role of the modern buyer, the focus shifted to persuading the supplier to allow for accommodations and extensions in their payment procedures. Criticality in this sense changed due to a more deliberate and apologetic buyer demeanour, but with too much inflexibility from the supplier resulted in behavioural criticality.

Second, the consideration of a time perspective has been of interest for IMP researchers, and how this perspective can impact interfirm relationships (Mason and Leek, 2012; Medlin, 2004). Capturing the multiple levels of interaction throughout time is a constant challenge in the IMP literature (Halinen *et al.*, 2013). While there are several different considerations of how time flows and how relationships develop through time, this study explores and builds on the concept of critical time as a key concept in an episode's temporal context (Edvardsson and Strandvik, 2009). This study finds that critical times are crucial periods that can set the interfirm relationship on a more positive or negative course. They might be thought of as "moments of truth" for buyers (Tax and Brown, 1998). While acting adversely towards the buyer can create stress (Holmlund-Rytkönen and Strandvik, 2005), acting to help the buyer can greatly improve the interfirm relationship. The degree to which seller can recognize these periods, reach out, and adapt to the retailer's situation will largely affect this development.

Finally, with the exception of some studies (Berends *et al.*, 2011; Dubois *et al.*, 2003), few have attempted to categorise episodes and find patterns in the continuation or change of buyer-seller relationships. Patterns of episodes occurring within these critical times, and across spaces vary, which underlines the complex and multifaceted process of relationship development over time (Håkansson and Waluszewski, 2013). This study examined five suppliers and found a different pattern of episodes for each one. Table 3 summarises these patterns in terms of time and social space. I have labelled these patterns as the last straw, adaptable, holistic, under the radar, and performance failure to reflect the nature of each supplier relationship. As each pattern was different for each case, it is likely that there are more complex patterns to be explored. This suggests that while paths to relationship change and continuity are numerous, examining these paths through individual episodes in time and space would be an important consideration for future researchers.

Table 3: Episode patters across five suppliers

Supplier	Pattern label	Episode pattern description in time and space
Lexus	<i>Last straw</i>	Frequent negative criticality in one social space during critical times.
Kirk	<i>Adaptable</i>	Flexibility and positive criticality in one social space during critical times.
Promo	<i>Holistic</i>	Repairs shortcoming of one social space with use of high positive criticality in another space during critical times.
Spectre	<i>Under the radar</i>	Low occurrence of high episode criticality across critical times and social spaces.
Cryo	<i>Performance failure</i>	High negative criticality in one social space outside and within critical times.

Overall, this study would agree with Dubois *et al.*, (2003) in terms of the multifaceted and complex nature of supplier relationship change and continuity. Cause and effect models may not capture the complex nature of how relationships are maintained and changed – yet this study sheds some additional light on this process. The findings from Table 3 suggest that changes are complex, yet an important factor for this change may lie in the idea of zones of tolerance (Schurr *et al.*, 2008). The interaction of time and social space may both influence how a supplier is “tolerated” during critical times, or within certain social spaces. Violations in one space or over a critical period of time might possibly surpass this level of tolerance, which brings about change, while remaining comfortably within this range in both time and space might maintain otherwise high-involvement relationships.

Conclusions, implications, and limitations

This study answers a call for research to describe the characteristics of episodes that are central to buyer-supplier relationships, along with the patterns among these characteristics within

different contexts (Håkansson and Waluszewski, 2013; Schurr, 2007; Schurr *et al.*, 2008). It builds primarily on previous research by taking a step closer to fully understanding and classifying the processes around interfirm relationships, and the implications that these processes have for the interfirm relationship as a whole. Relating to previous studies in critical episodes, this study examines the episode through different roles occupied by the buyer in social space, and the temporal context through the concept of critical time. What was of particular interest is the pattern that occurred across these characteristics when examining two different email accounts: BikeSmart Sales and BikeSmart Accounts. The traditional and modern roles the buyer takes within these accounts (Blenkhorn and Banting, 1991) lead to different buyer actions within exchange episodes, and impacts their outcome.

This study adds to the IMP literature by going deeper into how roles specifically affect exchange episodes. Departing from the argument that an actor's role affects their behaviour in a critical episode, this study proposes that the BikeSmart Accounts email account demands that the buyer take on a more "modern" role as accommodating, apologetic and appealing demeanour. Alternatively, the BikeSmart Sales emails demand a more aggressive, dominant, and time-pressed demeanour, suggesting a more "traditional" buyer role (Blenkhorn and Banting, 1991). These roles help explain the criticality of each episode, with affective criticality and behavioural criticality occurring more often depending on the context of the episode. Therefore, this research expands on the current IMP literature by linking the characteristics of exchange episodes to an actor-level construct that varied depending on the email account being observed (Guercini *et al.*, 2014; Hagberg and Kjellberg, 2010; La Rocca *et al.*, 2017). Moreover, episodes within critical times are key moments that must be managed effectively by suppliers. The different patterns observed across the case suppliers represent the complex processes that lead to changes in buyer-supplier relationships. This led to five observed patterns of change and continuity for BikeSmart's supplier relationships. This study would agree that change and continuity are notoriously complex (Dubois *et al.*, 2003), yet has uncovered additional means of explaining this process.

There are several areas of this study that could be improved to further develop the findings. If future research were to focus once again on email data between firms, a larger sample could be taken across more firms and sectors to yield results that are generalizable to other contexts.

Further studies could generate time-ordered bit-maps to identify episode characteristics and their development over time through more quantitative methods (see Langley (1999)). This might uncover more episode patterns. Second, this study looked primarily at email data, yet there are obviously other situations where these interactions take place. This means that only part of the picture was interpreted on how interaction episodes occur. Research into the use of email for negotiations suggest that pre-negotiation through face-to-face, or phone conversations will affect the negotiation process (Morris *et al.*, 2002). Without knowing all of the communications outside of the emails, this leaves some gaps in the full understanding of the interactions taking place. To improve upon the findings produced in this research, future studies could engage in more observational research that focus on face-to-face meetings and phone calls to observe episodes in real-time. This would also allow for an improved understanding of the context of the interaction, and an even more in depth understanding of both parties' interpretation of the interaction episode.

This study has several implications for managers on both sides of the buyer-supplier dyad. The first implication brings the importance of episode management to the light for boundary spanning actors, and particularly the selling firm. Sellers may be able to prevent negative critical incidents through expecting how a buyer will react based on their role. It also suggests that sellers should be aware of times when the retailer is particularly vulnerable, and be aware that their actions can be critical turning points in the future of the relationship. Secondly, it demonstrates how buyers might act in episodes that are highly critical. It suggests why buyers will behave in certain ways during these timeframes, which should further help suppliers manage their own expectations of a buyer's behaviour. Third, it shows sellers that their positions as key suppliers for a buying firm can change in a variety of ways. If continuity of a particular relationship is desirable for a supplier, they should help the retailer in whatever way possible across multiple actors and social spaces. It is even possible that relationships "damaged" in one space can be "repaired" in another. Suppliers may wish to adopt a more holistic approach to communicate their desire to continue the relationship. Finally, from the point of view of the buying firm, this study shows that buying managers likely play a variety of roles, especially in a smaller firm. This suggests the need for employees that can change their approach when addressing different issues with key suppliers.

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4.5 | Study 4

Bilateral trust repair in buyer-supplier relationships – a process study of high-end bicycle trading¹

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Abstract

This paper reports on a study of bilateral trust repair processes in buyer-supplier relationships between a small high-end bicycle retailer and five key suppliers. Trust is among most central elements in buyer-supplier relationships, yet the process of trust repair is relatively overlooked in the literature on inter-organizational relationships (IORs), including buyer-supplier relationships. We examine the bilateral trust repair process through e-mail data analysis, coupled with an ethnographic field study of individual breach/repair sequences and longer series of breaches/repairs over time in the five dyads. Overall, we contribute by showing that trust breaches in the IOR context are often repaired interpersonally. Taking responsibility while fixing the breach, or making promises works better than blaming external factors. We also contribute to extant knowledge on the prolonged repair process, for example by illuminating how repeat excuses or apologies lose credibility over time, unless the trustor boundary spanner is forgiving and organizationally unconstrained.

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Introduction

Companies depend on the resources of their customers and suppliers. The trading that takes place in buyer-supplier exchanges is therefore associated with considerable risk taking (Becerra *et al.*, 2008), and buyers and suppliers must be able to trust that their trading partners deliver on their promised resource allocations (Dwyer *et al.*, 1987; Håkansson and Snehota, 2000). As an expectation, trust bridges the gap between promised future resource allocation at t_1 and actual execution of that resource allocation at t_2 (Ring and Van de Ven, 1994). Trust is therefore one of the most important constructs in buyer-supplier relationships, or indeed in interorganizational relationships (IORs) in general. However, trust itself is also vulnerable and sometimes one party (the trustee) fails to fulfil promises to another (the trustor), causing a trust violation (or trust breach). Such a violation may lead to termination of the relationship, but given a certain level of dependence between the two organizations, a more likely subsequent course is trust repair (Janowicz-Panjaitan and Krishnan, 2009). Trust repair therefore becomes a key research area, and a central managerial concern (Janowicz-Panjaitan and Krishnan, 2009; McEvily *et al.*, 2003). We adopt the following definition of trust: “*the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party*” (Mayer *et al.*, 1995, p. 712). A trust violation can be defined as “*the failure of one party to perform in line with the expectations of the other*” (Janowicz-Panjaitan and Krishnan, 2009, p. 245), and trust repair is the subsequent actions or tactics of the trustee to return the relationship back to a normal trusting state.

The literature has produced an abundance of research on trust in IORs, including buyer-supplier relationships, but this research has focused primarily on the generative elements: for example, how it is generated in the first place (Das and Teng, 1998), its development over time (Dwyer *et al.*, 1987; Ness, 2009), and its positive effects (Dyer and Chu, 2003). In contrast, a more limited amount of research has dealt with degenerative elements in buyer-supplier exchanges, for example: the dissolution of buyer-supplier relationships (Harrison, 2004) or industry level factors that prevent trust creation in the first place (Korzczynski, 1996). Research on how trust is violated and subsequently repaired has received even less attention in the management field (Kim *et al.*, 2009), particularly in research on IORs (Janowicz-Panjaitan and Krishnan, 2009; McEvily *et al.*, 2003), despite the recognized vital importance

of trust in IORs. The purpose of this paper is therefore to generate knowledge on trust repair processes in buyer-supplier relationships. We base our analysis on the trust repair framework of Dirks, Lewicki and Zaheer (2009), who incorporated and related different managerial repair tactics at the interpersonal level. However, we study it in the organizational context of the buyer-supplier exchange. Janowicz-Panjaitan and Krishnan (2009) made important strides to increase our understanding of IOR trust repair, but their conceptualization of trust repair relied mainly on choices of formal tactics (i.e. contract) or relationship exit, with only little focus on interpersonal level repair tactics. We investigate small and medium sized enterprises (SMEs) in buyer-supplier exchanges with high interdependence (disqualifying exit as an option), and without any notable contractual or otherwise formal safeguards, which is typical for IORs involving SMEs (Gaur *et al.*, 2011; Larson, 1992; Uzzi, 1997). Moreover, we also extend on Janowicz-Panjaitan and Krishnan (2009) by studying interpersonal trust repair, but as embedded in the (inter-)organizational context, also responding to a call from Dirks *et al.* (2009). Our research question is framed as follows: *How do various contextual factors and characteristics of the trust repair process impact the employment of trust repair tactics and their consequences in buyer-supplier relationships?*

We present findings from a multiple case process study of trust repair in five key supplier relationships of a Canadian SME bicycle dealership. These are not complicated exchange relationships, involving high levels of knowledge sharing, but trust is nevertheless vital for coordination and the accessing external resources. We rely on process data in the form of historical e-mail correspondences, combined with observations from an ethnographic field study. This research design allows us to study: 1) trust breach and repair as a development process rather than discrete instances, as called for by Lewicki *et al.* (2006), 2) the interpersonal bilateral actions and reactions of both sides of the dyad, including 3) the role of the trustor in trust repair processes – i.e. how does the trustor respond to the trustee's repair attempts (which has only been addressed conceptually in extant research (Kim *et al.*, 2009)). The analysis enables us to offer a series of propositions that illuminate trust breach and repair in buyer-supplier relationships.

Trust breach and repair in buyer-supplier relationships

Trust breach is common in buyer-supplier exchanges. Uzzi (1997) showed empirically that trust in buyer-supplier relationships sometimes breaks down when actors detect

mistreatments from their exchange partners. Such mistreatments may typically occur when one party experiences losses from the other's untrustworthy behavior (Vanneste *et al.*, 2014). Ness (2009) documented how buyer-supplier relationships governed by trust degraded, and a competitive price focus took over. Furthermore, Bell *et al.* (2002) studied multiple trust breaches and documented a threshold level of repeat trust breach after which the buyer (trustor) became highly sensitive to further breaches, threatening the survival of the exchange.

Some contributions have looked into the more detailed nature of trust breach and repair in the broader IOR context. Janowicz-Panjaitan and Krishnan (2009) developed a conceptual framework based on the contention that the type of IOR trust breach determines what means are most effective in repairing trust. Different dimensions characterize the type of trust breach, such as integrity versus competence breach (Kim *et al.*, 2006), frequency and severity of breach, the organizational level of the violation (corporate versus operating), and organizational constraints placed on the boundary spanner. While their conceptual framework provides compelling insights into the repair of different types of trust breach, it also deals almost exclusively with legalistic repair means or exit (exchange dissolution) as solutions, and only propose non-legalistic measures when violations are low in severity/frequency and at the level of the operating boundary spanners (not the corporate level). Non-legalistic measures are understood as social accounts or explanations and may incorporate excuses, justifications or apologies. We pose that in some cases companies in an exchange may be interdependent, leaving exit out as an option (as observed by Janowicz-Panjaitan and Krishnan, 2009), but legalistic means may not be available. SMEs, which constitute the majority of companies in this study, have been found to frequently operate without contractual safeguards and rely more on trust in their business exchanges (Gaur *et al.*, 2011; Larson, 1992), which then necessitates interpersonal means of trust repair. Further research insights into trust repair at the interpersonal level but in the IOR context is therefore required. Since research on IOR trust repair is sparse, particularly as it plays out at the interpersonal level, we adopted trust repair theory from the broader management literature and organizational psychology. Here trust repair is conceptualized as an interpersonal communicative process, where a transgression provides the trustor with negative information leading to judgments of untrustworthiness of the trustee (Dirks *et al.*, 2009). The trustee must then engage in a communicative process and provide information to the trustor to offset the negative inference.

Theoretical framework

Kim, Dirks, and Cooper (2009) developed an exhaustive theoretical framework for trust breach and repair, which we have chosen as a theoretical framework for this study. In their bilateral framework, trust repair is not restricted to the trustee's actions following a trust breach, but also includes the trustor's actions as a vital part of the trust repair process. In interaction, the trustee attempts to re-establish that she/he can be trusted by engaging in various communicative tactics, and the trustor resists these attempts by maintaining mistrust, unless the trustee successfully negates this resistance. This way, trust repair becomes an interactive negotiation, and the strengths of one party's repair attempts and the other party's resistance determines the course of actions and reactions. Kim and colleagues (2009) conceptualise the repair process in three levels where the trustor will seek to determine: 1) if the trustee is guilty or innocent, 2) if guilty, then if the violation should be attributed to external situational factors or the trustee's actions, and 3) if the violation can be attributed to the trustee's actions, then if the efforts of the trustee can fix the wrong doing of the past or address the trustor's expectations for the future. Research within this stream typically attempts to explain the effectiveness of key trustee tactics at each of the three levels, and suggests various influencing contextual factors that have an effect on this successfulness. At level one the trustee can employ two main tactics: either attempting to present evidence of innocence or simply denying the breach (Kim *et al.*, 2009). At level two, the violator may attempt to attribute the violation fully or partly to external situational factors, which acquit the trustee of responsibility for the violation and thereby restores trust. Janowicz-Panjaitan and Krishnan (2009) operates with a similar distinction in the IOR context, between external and internal attribution, where external attribution refers to violation causes outside the exchange relation. Successfully blaming external factors depends on the trustees ability to formulate a credible excuse or justification, and is to a large extent connected to the information that lay the grounds for both parties' interpretations (Dirks *et al.*, 2009). At the final third level, the boundary spanning trustee accepts responsibility, and trust repair relies on tactics for fixing the past breach or convincing the trustor that future breaches will not occur. For example, an apology or a promise expresses the trustee's intention to avoid similar breaches in the future, whereas a reparation fixes the past violation. This process is conceptualised as a progression from one level to the next, where the actions on the first levels determine the possibilities for the available tactics in subsequent levels.

Empirical studies in this stream of research have investigated the effectiveness of particular tactics, applied to different types of breaches and having different relational effects, and in different types of professional interpersonal relationships (Dirks *et al.*, 2009; Kim *et al.*, 2009). However, similar theoretical knowledge is almost entirely missing in the interorganizational context, including buyer-supplier exchanges, despite widespread recognition that trust is the perhaps most vital ingredient of buyer-supplier relationships. It has also been noted that most research deals with single or a few breaches and repair tactics from the perspective of one side of the dyad (Kim *et al.*, 2009). However, trustors vary in their resistance to the above trust repair tactics, which affects the success of the tactic. In this study, we attempt to address this gap in IOR research. We adopt a dyadic process research design to study bilateral trust breach and repair in individual breach/repair sequences and over longer periods of time. By examining e-mail communication, we access dyadic data, gaining an understanding of the actions of both the trustee and trustor over time.

Methods

Our research aim is to develop a deeper understanding of the bilateral trust repair process. This aim lends itself to an embedded case study research design (Yin, 2009), which is also an ideal design for the development of theory (Eisenhardt, and Graebner, 2007). Our unit of analysis was a single small high-end bicycle retailer, which we will refer to as CycleSmart, and its business relationships with five key suppliers: Alpha, Beta, Charlie, Delta, and Echo (all company names are anonymized to respect confidentiality). Within these buyer-supplier relationships, we investigated discrete sequences of bilateral trust repair, starting with the breach by the trustee as perceived by the trustor, followed by trustee repair attempts, and ending with the response of the trustor, who accepts the repair leading to trust restoration or not. Moreover, our data also allowed us to examine all trust breach/repair sequences as they played out in each of the five buyer-supplier relationships over a period of three years. Examining these prolonged processes allowed us to determine if early breach/repair sequences affected later ones, or if breaches/repairs by CycleSmart as the trustee affected breach/repairs with one of the five suppliers as trustee. In our analysis, we drew on Langley's (1999) visual mapping strategy, which provides a balance between simplicity and accuracy, and is suitable for ordering many events such as trust breaches and repairs over a specific temporal frame. Five embedded supplier cases were chosen to make valid comparisons and contrasts that could be generalized across the buying firm's interactions (Eisenhardt and

Graebner, 2007; Yin, 2009). Within-case analysis led to the construction of process maps for each of the five cases, which were then subsequently scrutinized through a cross case analysis, leading to the formulation of propositions.

The context of a small bike retailer and its five key supplier relationships is suitable for this study because the business exchanges are relatively simple with only few performance issues (payment, delivery and quality), few involved boundary spanners, and simple communication channels. The trust repair process is highly complex in itself and with larger organizations, hi-tech products and many people involved the study of the trust repair process would have been overly complicated. Since legalistic remedies are rarely implemented and enforced by these mainly SMEs, trust (and trust repair) often plays a larger role (Gaur *et al.* 2011; Larson, 1992). One author used his personal network to engage with the CycleSmart owner, which also helped accessing the sensitive e-mail communication, requiring a certain degree of trust in its own right. The five chosen suppliers were the largest CycleSmart suppliers in terms of purchases and engaged in weekly e-mail communication with CycleSmart. Age also mattered in the choice of suppliers. At the start of the observed study period, each supplier had been in the relationship for at least five years, which suggests that the exchanges hold a minimum level of trust, allowing the study of trust breaches and repairs (Dyer and Chu, 2003; Gulati and Singh, 1998).

In our IOR trust investigation, we responded to Marchington and Vincent's (2004) warning against treating organizations as homogeneous units. They argued that trust (and other elements of business relationships) is established in the *interpersonal* relationships. We therefore needed data that could capture the dyadic interpersonal exchange process. Consequently, we chose to study the e-mail exchanges between CycleSmart and five suppliers between 2012 and July 2016. Trust repair research in the business context has not examined e-mail communication before, but in the context of these simple mainly SME exchanges this data type proved highly valuable. Due to the large distances between CycleSmart and suppliers, and the personal preferences of the boundary spanners, the vast majority of business interactions took place via e-mail. They only rarely picked up the phone or met face-to-face to coordinate their business exchange, and when they did, they referred to it in their subsequent e-mails. One strength of e-mail communication is that it allows actors to deliberately convey information and requests more clearly, and without interruptions (Mason and Leek, 2012). The bilateral process of trust breach and repair, which is essentially a

communicative interpersonal process, was therefore directly accessible through the study of e-mail communication, leaving out most communicative noise from the data. Moreover, the accessing of dyadic data is crucial to understanding business interactions (Ness, 2009), and this type of data is also captured in e-mail correspondence (Orlikowski and Yates, 1994). Studying e-mail correspondence allowed us to map the trust repair processes in their entirety. Over 2000 e-mails (yielding approximately 700 pages after eliminating irrelevant text) were collected from all five supplier cases from CycleSmart's e-mail accounts. These data were complemented by a two-week ethnographic field study at the retailer premises, and retrieval of company documents, which included CycleSmart's financial information, and all order records from the five suppliers. This allowed for a more informed interpretation of trust breaches and repair occurrences, and to triangulate findings between the observational, archival, and e-mail data to improve the study's reliability (Uzzi, 1997). It also provided a deeper understanding of the day-to-day operations of CycleSmart, and their interdependent relationships to the five key suppliers (Snow *et al.*, 2003). During the ethnographic field study, interviews were conducted with the employees of CycleSmart to learn about each supplier relationship and the specific trust breach/repair processes, allowing us to make valid interpretations of the trust repair processes (Orlikowski and Yates, 1994). Observational notes were written down in a notebook, and copied to electronic format for further analysis. We examined processes with both the buyer as trustor (the supplier breaches trust), and trustee (the buyer breaches trust).

A total of 116 trust breaches and trust repair attempts across all five cases formed the core of the analysis and interpretation. E-mails were coded based on the parties involved, the severity of the breach (see Tomlinson *et al.*, 2004, p. 173), the repair tactics used by the trustee, and the success of the tactics (Kim *et al.*, 2009). E-mail data allowed us to easily determine the involved actors and timing of the trust breaches and repairs. Trust breaches were when a trustee's behavior deviated from the expectations of the trustee, and were inductively grouped into four issue types: payment, delivery, product quality, and communication. This allowed for different aspects of trust to be examined, rather than just a "blanket" form of trust, in accordance with Blois (1999). The severity of a breach was determined by the adoption of Tomlinson *et al.*'s (2004) "violation magnitude" construct, looking at how serious the breach consequences were perceived to be by the trustor. Trust repair tactics were derived from Kim *et al.*, (2009), and we coded for a repair tactic if they featured apologies such as "*I am very sorry*", or excuses such as blaming the weather for not making a payment, for example.

Finally, the success of a repair tactic was determined by the response from the trustor. For instance, if a supplier accepted a delayed payment, or if the buyer mentioned that they were satisfied with the tactic of a supplier, we coded this as a successful repair attempt.

We compared and contrasted the prolonged processes within and across the supplier cases to derive our process-based findings. This also led to the construction of process maps of each supplier case (Figures 1-5), which were compared alongside the summarizing data for the trust repair tactics and success rates within each case (see Table II). The visual maps allowed us to connect breaches, trustee repair tactics, and trustor responses over time. This was especially useful during breaches that were particularly severe, or when the resistance of the trustor changed noticeably. We could trace back to previous trust breaches over time by the same trustee, and determine the patterns of these actions that lead to such instances. The determination of these patterns was repeatedly checked and discussed by both researchers to increase the validity of the findings.

Cases

CycleSmart is a small retailer located in rural Canada, specializing in the trading of expensive bicycles. It was founded in 2003, and currently has one owner who is also the day-to-day manager for all operations. In addition, there were 2-3 full- and part-time mechanics, 2-3 full and part-time sales associates, and a full-time bookkeeper over the study period. Sales for the period of 2012-2015 remained just under 1 million Canadian dollars. CycleSmart offers many genres of bicycles, along with related parts, accessories, apparel, bicycle rentals, and repair services. CycleSmart also sells Nordic skis, snowshoes, and apparel for the winter season. CycleSmart aims to keep a large selection of items in stock for customers, primarily to compete against online retailers. However, it is costly to carry high-valued bicycles as inventory, which needs to be balanced with the considerable shipping time and frequent special orders placed by consumers. Furthermore, as a small local retailer they must be reliable and flexible for their local and loyal customers. Sales of high-end bicycles are growing and it is considered a complex, luxury item. Therefore, the sale of these bikes often requires extensive efforts to provide correct product recommendations and mechanical adjustments.

CycleSmart purchases products from many suppliers, yet the top five suppliers comprise almost half of their total purchases. They are manufacturers, distributors, or agents for a particular brand of bicycle. Most parts and related accessories are purchased from an intermediary. Very simple contractual sales agreements exist between CycleSmart and their suppliers and they only cover territorial sales exclusivity and terms of resale guidelines. They are almost never applied or referred to in daily operations and play no role in trust repair. When asked about access to the agreements, a CycleSmart employee responded “*I’ll see what I can dig up*”, and “*we never look at them.*” Routine orders are completed primarily through online platforms; however, non-routine orders and customer service issues are usually handled primarily over e-mail, or secondarily over telephone. A non-routine order may be a large purchase to upgrade the bicycle rental fleet – a purchase often with a discount from the supplier. Large orders such as a seasonal booking are also completed using spreadsheet files sent via e-mail. Payment methods to suppliers have varied over the observed period. Sometimes it is completed through an electronic direct deposit, however the primary method is to provide suppliers with post-dated checks to align with the payment terms offered to the buyer.

Table I provides an overview of the five supplier cases, along with the number of e-mails analyzed, and the number of trust breach and repair tactics in each dyad. The size of the firms were estimated through secondary sources. Charlie is considerably larger than the other firms, who are similar in size.

Table I: Supplier case firm data and trust breaches/repairs

Case supplier	Description	% Growth in purchases 2012-2015*	Number of employees (estimates)	Number of e-mails analysed	Number of observed trust breaches and repair attempts
Alpha	Manufacturer: bicycles	-62%	< 200	233	18
Beta	Distributor: bicycles	132%	< 200	513	23
Charlie	Manufacturer: bicycles	19%	< 5000	218	17
Delta	Distributor: bicycle parts and accessories	-21%	< 200	713	40
Echo	Manufacturer: Nordic Skis	-31%	< 500	402	18
Total		6%	n/a	2079	116

* Data on total 2016 sales figures not available at the time of data collection

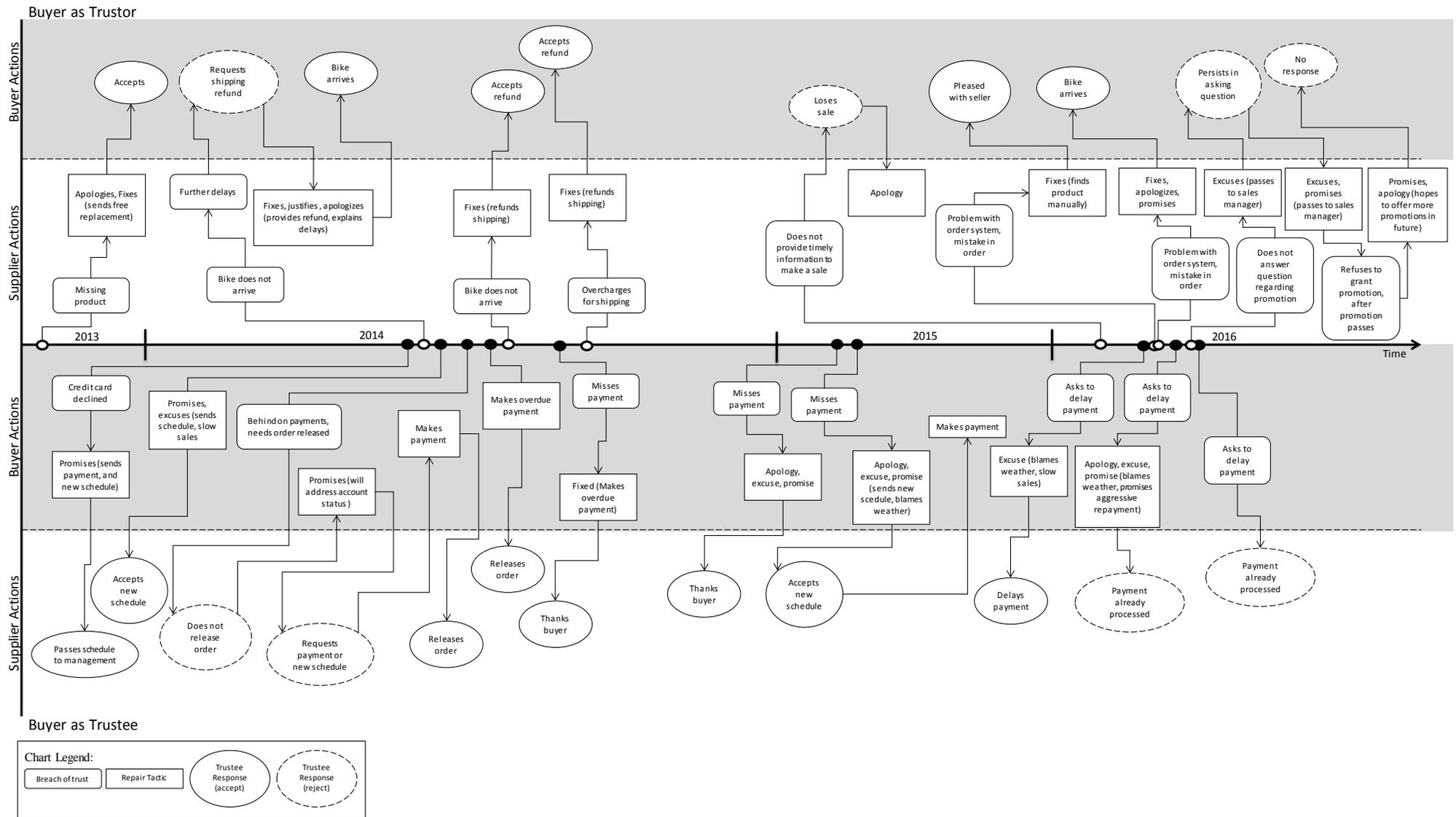
Below we present a summary of the main trust breach/repair characteristics for each supplier case, along with constructed process charts. Characteristic data excerpts showing trust breaches and repairs for each case can be found in Appendices A to E, which also demonstrate how trust breaches and repair tactics were coded.

Alpha

Alpha is a supplier specializing in the manufacturing and distribution of high-end road bicycles. Alpha's appeal as a supplier is primarily due to the quality and the recognition of the brand itself. Additionally, CycleSmart has the exclusive rights to sell the brand in their respective province. However, Alpha experienced the most notable decline in CycleSmart purchases over the observed period and now have the smallest percentage of CycleSmart's purchases of the five suppliers. Moreover, from field observations, the owner mentioned that he feels that the relationship is a "numbers game" for Alpha, with less of an emphasis on maintaining a closer relationship. In terms of the trust breach and repair tactics, Alpha has the largest proportion of trust breaches compared to the other cases. When the supplier breaches trust, it is often related to basic communication problems. Appendix A shows a trust breach/repair sequence by Alpha failing to answer CycleSmart regarding a promotion. The

Alpha day-to-day sales manager keeps making excuses, and passing the problem on to a superior. The sales manager clearly has several other parties and situations to blame for the trust breach, instead of proceeding to try and fix the problem, or promises to keep such a situation from reoccurring.

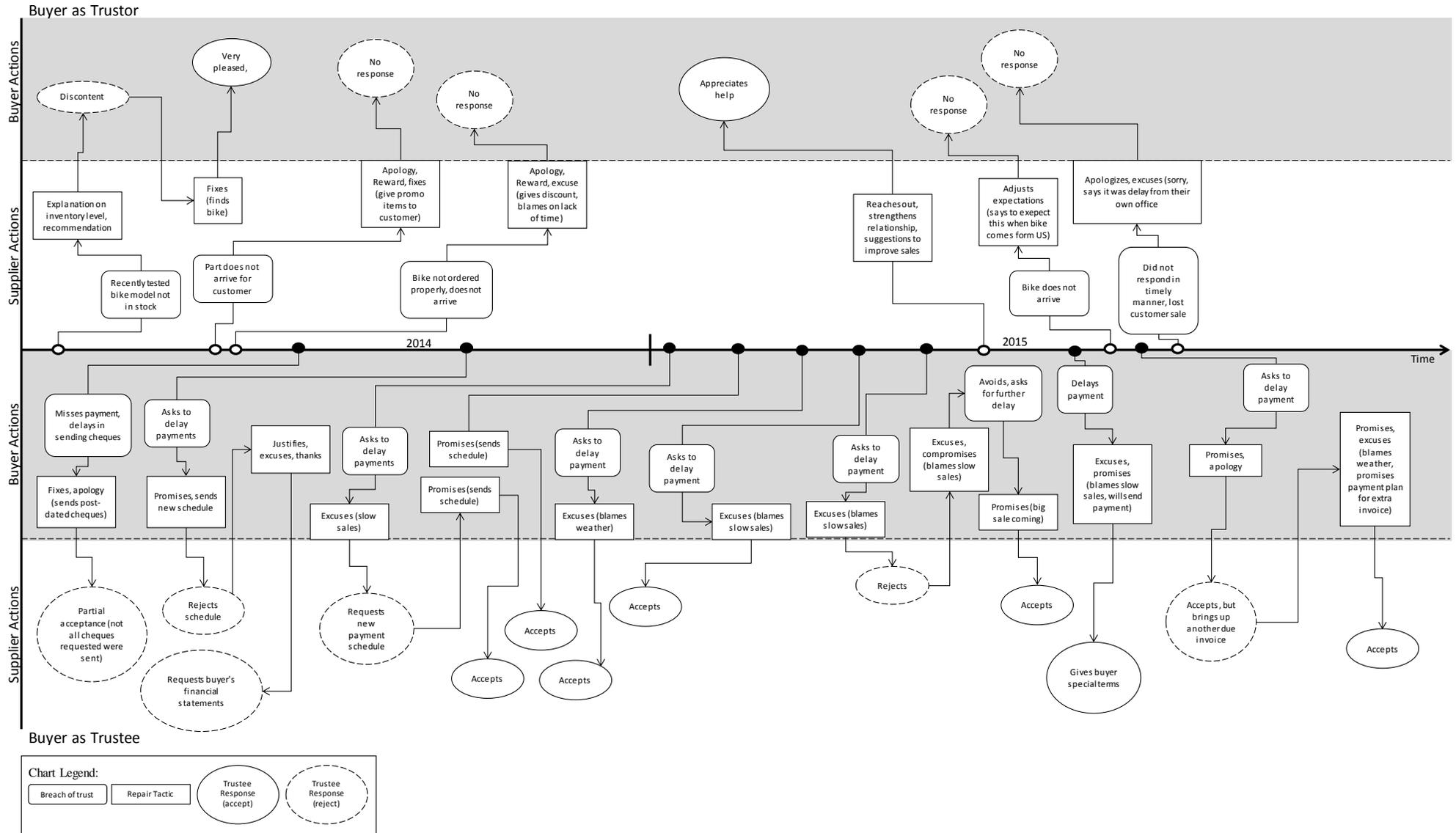
Figure 1: Instances of trust breach and repair for Alpha

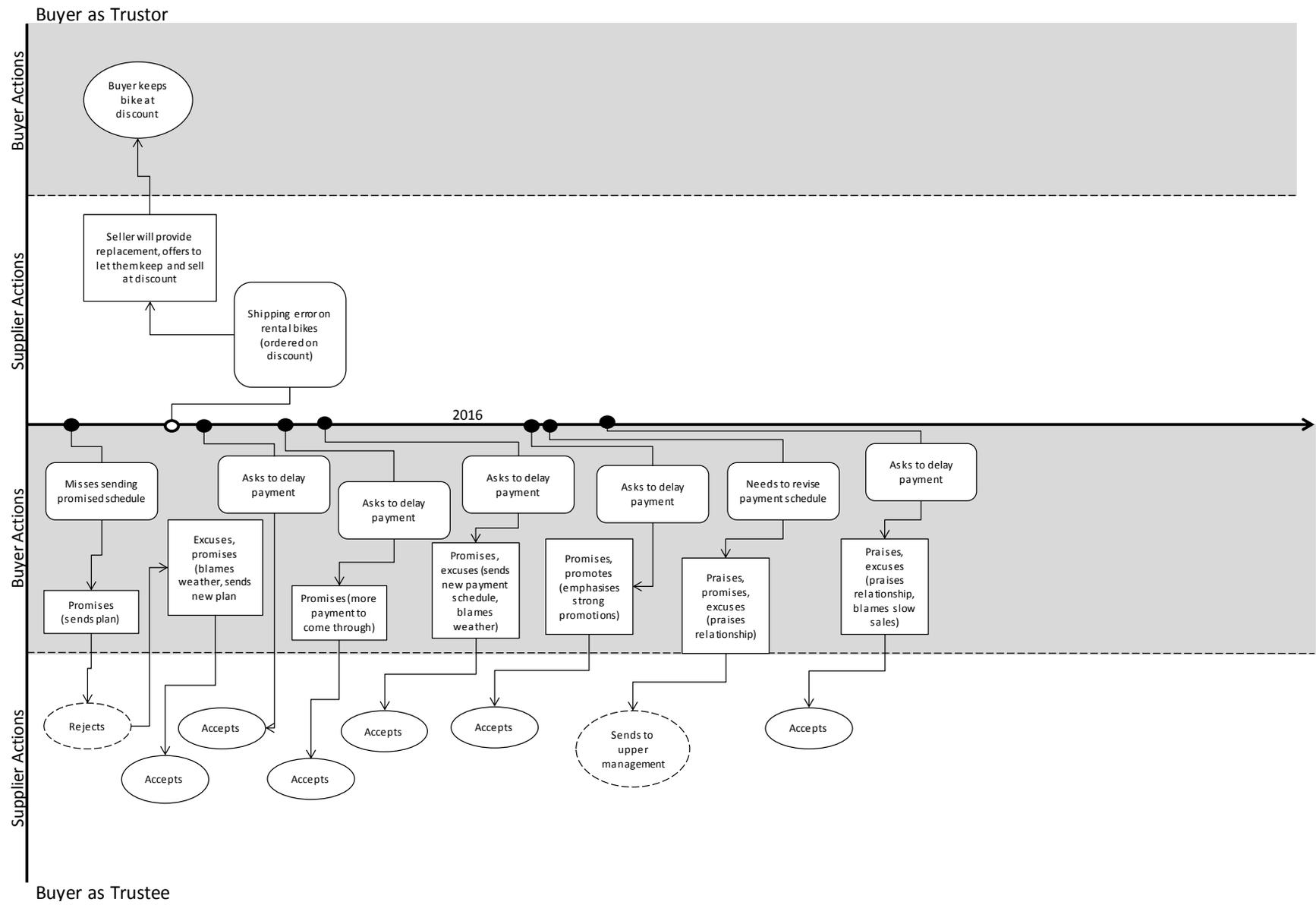


Beta

Beta is a bicycle manufacturer, and distributor of several international bicycle brands. It is described as the best and most flexible supplier by the CycleSmart employees and owners. As Table I demonstrates, this supplier has experienced the highest growth in sales during the observed period. The CycleSmart owner emphasizes Beta's flexibility, as observed in the e-mail data for both the sales and account e-mail channels. The lead account manager for Beta has dealt directly with CycleSmart's owner for many years, and has described the owner as a survivor. All CycleSmart trust breaches concern missed payments, followed by repairs and asking for a delayed payment if sales are slow for a particular period, which are often accepted by Beta. However, the Beta manager will often request a new payment schedule, which is essentially a formalized and planned promise of future payments. This also suggests that apologies and excuses will work for a short time period, but will not suffice indefinitely. When Beta breaches trust due to mistakes in shipping or communication problems, they often fix the situation effectively, instead of making excuses. This is demonstrated in Appendix B, showing a successful trust repair tactic by Beta. The Beta sales manager does not make excuses for not having a particular model of bike in stock, but simply moves on to fix the situation.)

Figure 2: Instances of trust breach and repair for Beta (continued on next page)

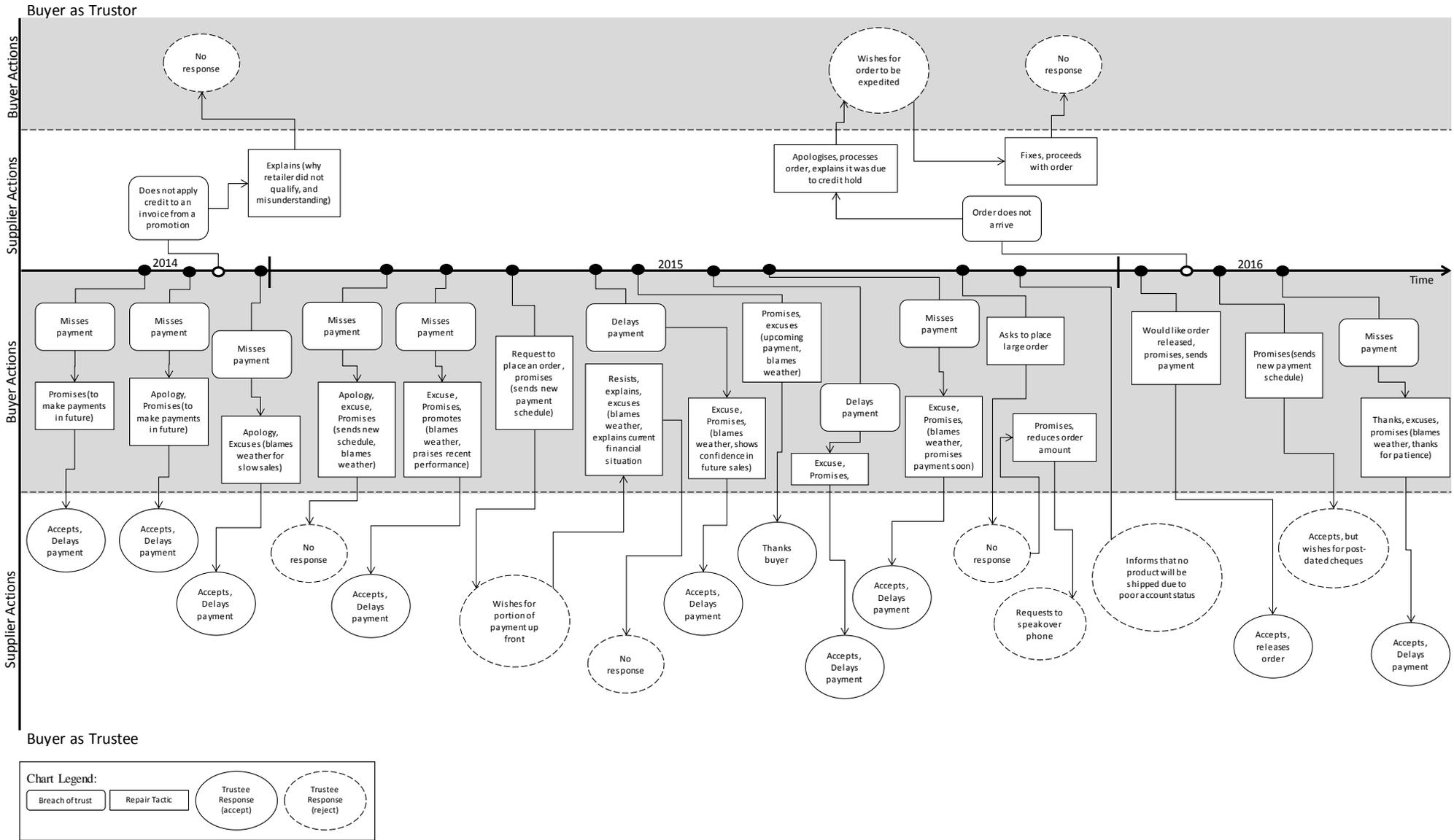




Charlie

Charlie is a large bicycle manufacturer, which also offers its own line of bicycle clothing, and a wide range of parts and accessories for their broad assortment of bicycles. The data shows few trust breaches by Charlie, however they are somewhat rigid and resistant to trust breaches from CycleSmart. They are the least accepting supplier of either apologies or excuses as repair tactics, which in the vast majority of situations is a missed or late payment for inventory delivered to CycleSmart. Appendix C shows an instance of a missed payment trust breach by CycleSmart in 2015. This occurs several times throughout that year. The final message from the Charlie accounts manager, as the trustor, reveals a great deal about the dynamic of trust repair between both parties. Repeat CycleSmart attempts at repairing trust by making promises, in the form of payment schedules, have lost their credibility, and therefore the supplier ceases to accept this tactic as valid for ensuring that future payments will be made. This indicates that after some time, the only way to truly repair trust may be to complete payment, and thus to truly fix the situation. It also suggests that, in contrast to when the supplier breaches trust, there are no other third parties for CycleSmart to blame the transgression on – it is solely up to CycleSmart to take responsibility and repair trust.

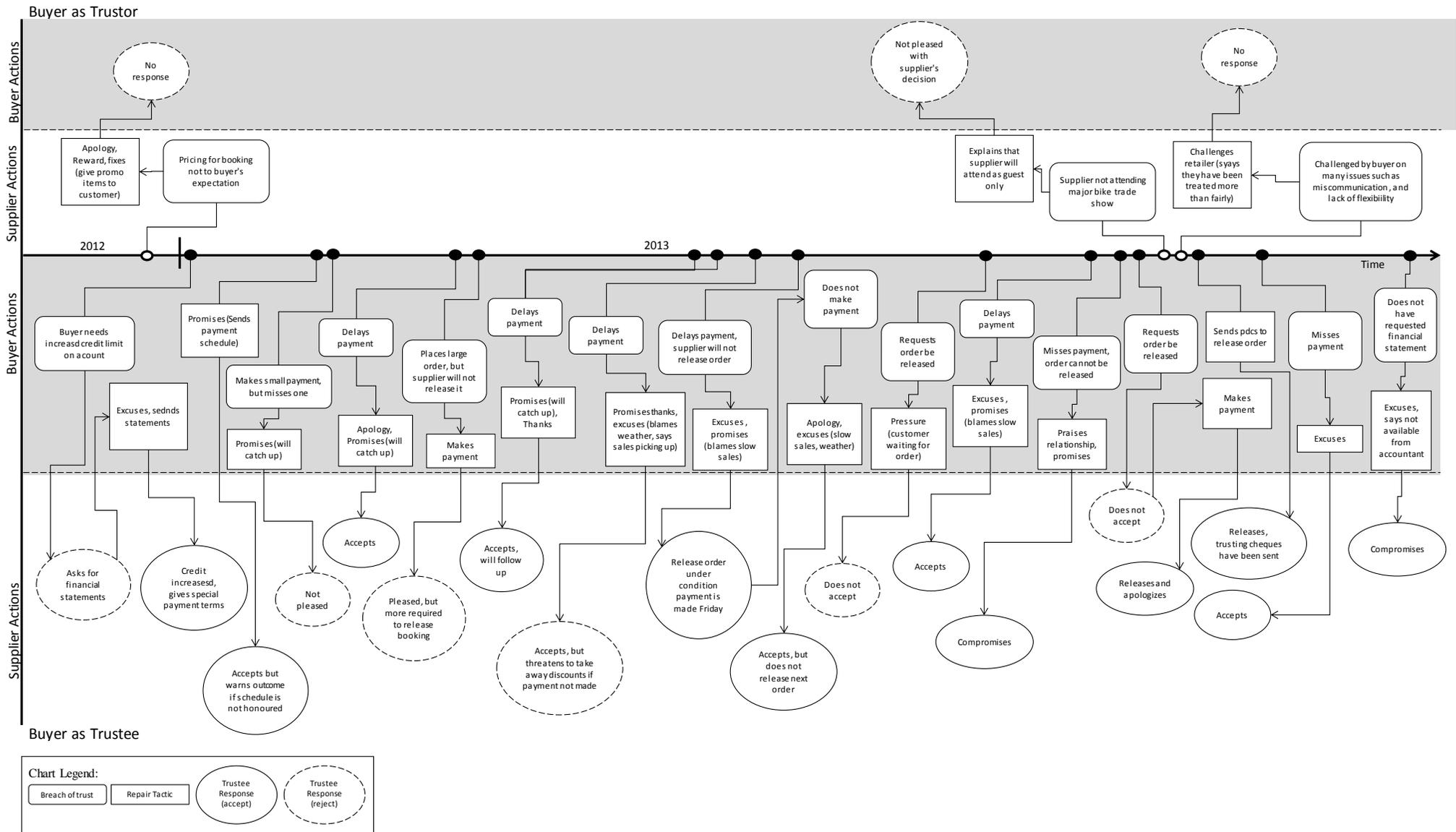
Figure 3: Instances of trust breach and repair for Charlie

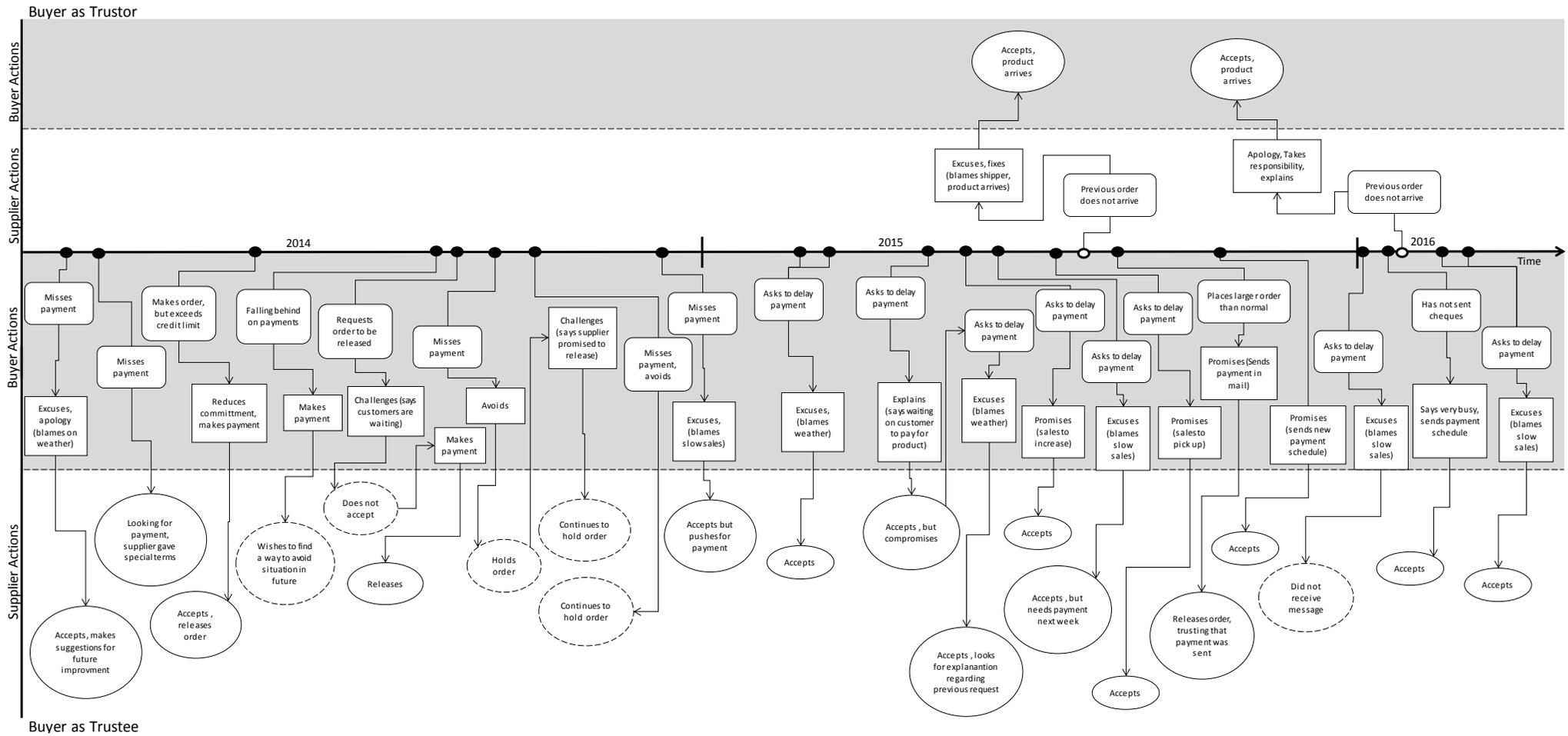


Delta

Delta is a distributor of bicycle parts, clothing, and other related accessories, and is one of CycleSmart's most important suppliers due to its healthy product margins and broad product range. Delta communicates frequently with CycleSmart, especially in the accounts e-mail channel. However, there were fewer instances of trust breaches by the supplier in the sales e-mail channel. The number of trust breaches by CycleSmart is significantly larger than for other suppliers, and therefore Delta appears concerned with keeping the accounts payable balance under control. While this has caused some frustration for CycleSmart employees over the observed period, it has also resulted in another interesting observation in the data. Appendix D shows that while there are many repeated breaches over time by CycleSmart, by missing or delaying payments, the supplier accepts the tactics, eventually learning that this is what is to be expected in future interactions. What is interpreted as a trust breach for other suppliers, becomes an acceptable situation for Delta over time. This especially holds true for when CycleSmart blames the weather or another external issue for slow sales, which is one of the most frequent trust repair tactics used for relatively minor trust violations. In several cases, CycleSmart would also make partial payments to demonstrate a partial fixing of the situation.

Figure 4: Instances of trust breach and repair for Delta (continued on next page)

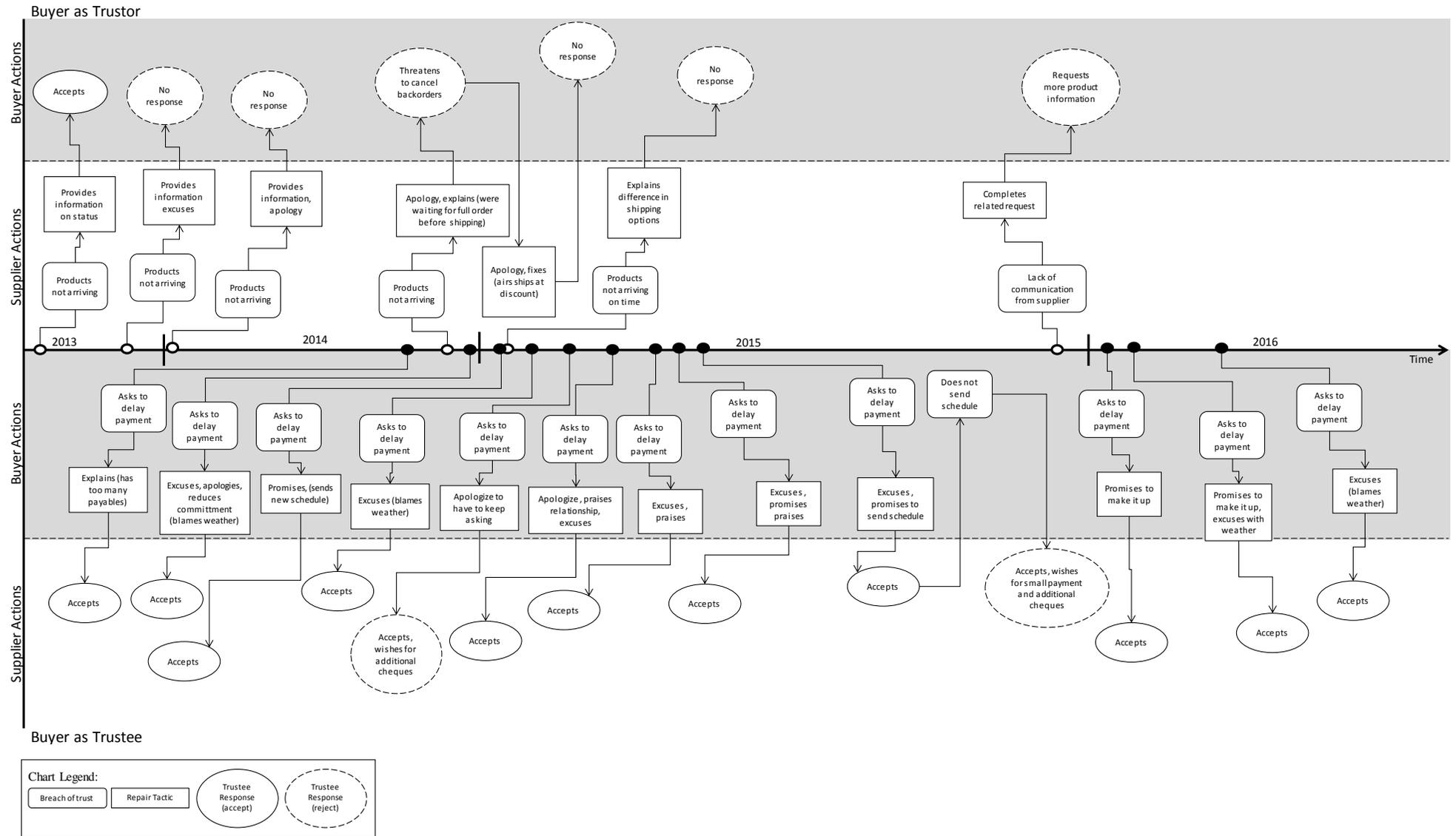




Echo

Echo is a Nordic ski manufacturer and distributor. While this firm sells a slightly different product than the other four suppliers, the type of product still falls within the category of outdoor sporting equipment, and the ordering and payment procedures are similar to the other cases. Echo is also one of the most important suppliers for CycleSmart, as they are catering to a different selling season. Echo is described as understanding and flexible compared to other suppliers, especially when CycleSmart employed the weather excuse to justify late payments. The CycleSmart owner believes that this is due to their experience in providing a winter product, and therefore they understand that snow is not guaranteed in all weeks of each selling season. Reversely, Echo breached trust several times by failing to ship products, and this was not communicated to CycleSmart (see example in Appendix E). The employees of CycleSmart replied affectively and sarcastically, demonstrating the high perceived severity of the breach. The analysis also shows that the severe common failure of Echo to communicate delays in shipping for unknown reasons leaves a taint and is on the mind of the CycleSmart employees and owner in future exchanges.

Figure 5: Instances of trust breach and repair for Echo



Discussion

Our findings and contributions concern level two and three in the Kim *et al.* (2009) framework. In the context of these bike exchanges, actions that breach or honor trust are inevitably tied to the specific other party and the question of innocence is therefore largely irrelevant. Given that the guilt of the exchange partner is clearly established in all breach instances, trust repair takes place at levels 2 and 3.

Repair tactics and their effects within one breach/repair sequence

Table II shows the cumulative trust breaches on different issues, the repair attempts, and their effectiveness (in parenthesis) in the five cases.

Table II: A summary of trust breach issues and repair tactics

Trust breach issue		Alpha	Beta	Charlie	Delta	Echo	Total
Payment		10	16	16	34	12	88
Delivery		4	5	1	3	5	18
Product quality		2	0	0	1	0	3
Communication		2	2	0	2	1	7
Total		18	23	17	40	18	116
Tactic level	Repair tactic	Alpha	Beta	Charlie	Delta	Echo	Total
2	<i>Excuses</i>	2(1)	3(2)	1(0)	13(7)	7(5)	27(15)
3	<i>Apologies</i>	1(0)	0	0	0	2(0)	3(0)
	<i>Promises</i>	1(1)	7(5)	4(1)	9(8)	4(3)	25(18)
	<i>Fixes</i>	5(5)	1(1)	1(1)	5(3)	1(0)	12(9)
<i>Combined Tactics</i>		9(8)	12(8)	11(7)	13(10)	4(3)	50(40)
Total		18(15)	23(16)	17(8)	40(28)	18(11)	116(78)

Looking at the individual isolated trust repair attempts, we find that trust repairs are more successful at level three than level two. The data shows a high number of level two attempts by the trustees, but the trustor does not accept almost half of them. This finding opposes the dominant contention in the literature that level two tactics are more effective than level three tactics, and supports Kim *et al.*'s (2009) reported alternative thesis that trustors taking on more blame with a level three tactic can indeed be more successful than trustees, who attempt to assign external blame. Attempting to escape personal responsibility may indeed

compromise the trustee's credibility and character, leading to failed trust repair (Tomlinson *et al.*, 2004). Looking at the different types of level three tactic, we also see that fixing the problem is clearly more effective than future oriented attempts (promise or apology). In fact, offering an apology as a separate tactic was completely ineffective among the managers, a finding that contradicts Tomlinson *et al.*'s (2004) evidence of the strength of an apology in buyer-supplier exchanges, although our number of observations of this particular repair tactic was quite low. Our findings extend those of Schweitzer *et al.* (2006), who documented no effects of an apology, into the IOR domain. These authors also found that a promise works in the short term, but in the long term, actual actions are more effective in restoring trust – a finding which may explain why fixing is superior to the promise in our study. That an apology is rarely offered in isolation may also explain why it is usually offered in conjunction with other tactics.

P1: Trust repair attempts in buyer-supplier relationships are more effective at level three than at level two.

At the overall level, we also produce insights into the use of multiple tactics. The literature on trust breach and repair tends to conceive of repair as an individual tactic following a breach and leading to either success or failure. The occurrence of multiple tactics in the literature tends to happen merely when one tactic fails, leading to the assessment that another tactic is required for repair of a particular breach (see for instance (Kim *et al.*, 2009)). Gillespie and Dietz (2009) suggested that a single means of repair (e.g. communications, cultural interventions or strategy revision) at the organizational level is rarely sufficient. Our data shows that multiple interpersonal means are also frequently applied, even simultaneously within the same e-mail (see combined row in Table II). For example, an apology rarely appears in isolation, but is usually offered together with another tactic. Interestingly, we also find that level two and three tactics are combined, blaming an external factor, but only for some of the transgression, and then in the same mail accepting the remainder of the responsibility by stating an apology for instance. In other instances, such as the one by Beta (Appendix B), the trustee attempts a tactic but then proceeds to attempt a second tactic of a different kind without an intermediate response from the trustor. Hence, the decision to apply another repair attempt is not necessarily prompted by non-acceptance on the part of the trustor, but can be triggered solely on the trustee side of the exchange.

P2: Actors in buyer-supplier relationships may attempt multiple repair tactics, spanning both level two and three, without any intermediate trustor response.

Finally, our analysis shows that the particular inter-organizational context of the buyer-supplier exchange, as well as the issue at stake (see Table II), determine the number and variety of options for blaming external factors. Dirks *et al.* (2009) noted that trust repair in the IOR between collectives of individuals may take different forms, compared to trust repair between two people. In the buyer-supplier exchange context, we observe that managers may have a range of external factors (e.g. other companies) to blame, but also even semi-external factors (external to the person but not the organization) within that manager's own organization (e.g. colleagues). In other situations or cases, managers may have very few blaming options at their disposal. For example, CycleSmart has few situational factors to blame for violations of trust. The main issue for CycleSmart, payment, is a very direct and accountable process, whose violation can only be attributed to the CycleSmart manager (or the weather). Reversely, for instance, we observe the delivery trust breach by the Charlie manager in Appendix C, who possesses a range of external and semi-external (within own organization) factors to blame when failing to meet delivery deadlines. This broader variety of blaming options in the buyer-supplier exchanges was documented by Uzzi (1997), who found that third party transporters were often blamed for shortages in shipment quantities. Whereas Uzzi's (1997) study documented external blame, Perrone *et al.* (2003) showed the importance of the boundary spanners' *internal* organizational hierarchy (and possible blame options) for their ability to repair trust. Our findings contribute further to the research on trust repair in buyer-supplier exchanges by uncovering the large differences in blaming options for boundary spanners. Managers with a large variety of blaming options may more easily "get away" with blaming the situation while maintaining credibility and therefore choose this option more often, while managers with few options need to switch to level three to maintain credibility and the likelihood of successful repair. The above discussion leads to the following proposition:

P3: The internal (organizational) and external (broader supply chain) context of the buyer-supplier exchange will determine what possibilities the trustee have for blaming the situation and repair trust at level two.

Repair tactics and their effects in exchange prolonged processes

The second set of propositions is based on our analysis of the prolonged trust repair process, spanning longer time periods and multiple breaches/repairs in the exchange (see Figure one to five). Our first overall process finding is that the two trust breach and repair processes that

run in parallel over time are only very vaguely connected. The e-mail correspondence data allowed us to examine the connections between the two processes, for instance if one party's trust breach could be used by the other as excuse or credit for its own trust breaches. However, we find no evidence for such a connection. Indeed, the process with the buyer as the trustor (above the midline in the five process charts) seems completely isolated from the process below the line (with the buyer as trustee). Our propositions therefore concern the separate trust repair processes.

First, we find that when managers repeatedly blame external factors for transgressions, blame may lose its effectiveness as a tactic. We found several instances of highly affective reactions of the trustor when excuses are applied in series (without ever progressing to level three). An ill-effect of repeatedly blaming the trust violation on situational factors is the deterioration of the repair credibility of the trustee. Previous studies suggest that this behavior under these circumstances is contradictory to the trustee's role expectations of the trustor, thus eventually resulting in reduced credibility (Tomlinson and Mayer, 2009). Furthermore, repeatedly blaming situational factors for an inability to make payments has a lower chance of success (Kim *et al.*,2006). We document the same type of exhaustion for the level three tactics apology and promise.

P4: Repeatedly and continuously, a) blaming the situation and/or b) apologizing or promising to repair trust in buyer-supplier relationships, will exhaust the repair tactic and lower its credibility over time, eventually rendering it unsuccessful, and possibly causing negative affective reactions by the trustor.

A promise aims to convince the other party that a violator can alleviate or prevent the violation in the future. Our data shows that when promises become exhausted (and given lacking possibilities for fixing the violation), trustees may attempt to formalize their promise. We documented promise formalization on the buyer side relative to all five suppliers, when CycleSmart changed from simply promising future payments to making payment schedules that outline the amount and date for planned payments, sometimes coupled with opening up their accounts to lend credibility to their formal promises. Providing a payment schedule (see Appendix D for example) is intended to increase the credibility of the trustee, because it shows that payments are planned and more thoroughly considered, almost attaining the characteristics of a written contract (Blois, 1999), as opposed to a fleeting note in an e-mail. Our data showed that promise formalization may also be triggered by trustor requests.

However, the data also shows that this level three tactic is only sometimes successful. One supplier (Charlie) will not accept payment schedules because they are not considered reliable or are perceived as “empty promises”, even if the buyer claims to have made the promise in good faith. Interestingly, we found that trustor responses in such situations are affective and negative. Other suppliers, such as Alpha and Beta will sometimes accept it.

P5: Trustors who have exhausted their promises and/or apologies in buyer-supplier relationships may attempt to formalize promises to strengthen their credibility.

As a corollary to P4, our data also shows that repeat excuses of the same type, occurring in connection to minor violations, may under certain circumstances come to be accepted as a truth by the trustor. For example, CycleSmart’s use of the weather as an excuse for not realizing enough sales to pay outstanding debt to suppliers became accepted by suppliers Delta (see Appendix D and Figure 4) and Echo (see Figure 5) over time. Here, repetition of the same excuse does not exhaust, but instead cements the external factor as a highly convincing cause of the violation. The same was documented in a few instances when the buyer is the trustor. Minor external shipping errors over time became less of a violation as the buyer’s expectations shift, and they come to accept lower performance levels of the particular supplier as the norm. The analysis shows that the key factor explaining the difference between repeat tactics losing credibility (P4), or becoming valid over time (P6), is the resistance of the trustor as described by Kim *et al.* (2009). Strong resistance may lead to a more forceful confrontation, and thus situations where the credibility of the trustee deteriorates over time, whereas with weaker resistance, trust is successfully repaired. In the inter-organizational context of our study, we find that organizational constraints on the boundary spanner, primarily as a consequence of the size of the trustor organization, produce what Kim *et al.* (2009) refer to as differential resistance. For example, Delta and Echo are smaller and more flexible organizations similar to CycleSmart, and their boundary spanners are more autonomous in their decision making relative to customers, generating a low level of resistance. Given that the repeat breaches are confined to one exchange domain (Sitkin and Roth, 1993) – payment – the boundary spanners are willing to accept repair attempts. Conversely, Charlie is a large and more formalized supplier organization with a higher level of routinized boundary spanner behaviors, leading to a demanding stance towards customers and consequently a higher resistance to trust repairs (see appendix C for an example).

P6: Over time, repeat excuses and/or promises, may become accepted as valid trust repair tactics in buyer-supplier relationships, when the trustor boundary spanner is forgiving, and unconstrained,, leading to low resistance to the trustee's trust repair attempts.

Extant research has documented that boundary spanners' trustworthy behavior depends on organizational constraints (Janowicz-Panjaitan and Krishnan, 2009; Perrone *et al.*, 2003). Our finding contributes to this literature by showing that organizational constraints also cause differential resistance in the inter-organizational context.

Our final proposition concerns the severity of trust breaches. Janowicz-Panjaitan and Krishnan (2009) conceptualized that trust violations of varying severities should require different subsequent repair tactics in the IOR context. They argued for the use of legalistic remedies (primarily contracts) or exit for trust breaches of higher severity. Our sample companies operate largely without written contracts and rarely even mention exit as an option in their communication. Essentially, one central contribution of this paper is that in the IOR context, companies often repair trust by the use of interpersonal tactics (excuse, apology, promise), instead of the additional means available in the IOR (contracting and exit), even in cases of severe breaches. Our data support this contention by showing that even over a year-long exchange process including multiple breaches, none of the involved parties exit or implement written contracts (except for the payment schedules that are slightly reminiscent of simple contracts but without any notable repair leverage). Instead, they keep resorting to interpersonal tactics, although often in combination, when the breach is severe. However, our findings also show that the severe breaches are frequently not completely repaired, resulting in a taint on the relationship. Reparative tactics that may work for smaller offenses are clearly not effective for larger ones (Tomlinson *et al.*, 2004), leaving a negative residue that hurts future trust interactions. This taint surfaces in our data when the trustor refers to previous breaches in subsequent ones, increasing the resistance over time as a consequence and demonstrating the difficulty of reconciling severe breaches (Tomlinson *et al.*, 2004). In the context of buyer-supplier severe conflict resolution, Ellegaard and Andersen (2015) found evidence for a similar taint. Our findings extend on this and show how earlier severe unrepaired breaches inflict damage on future repairs over time.

P7: Severe trust breaches will taint the buyer-supplier relationship and influence future trust breach/repair situations.

Conclusion

This study uncovered a series of bilateral trust repair processes in buyer-supplier relationships between a high-end bicycle retailer and five major suppliers. Drawing on the strengths of e-mail process data analysis, and with the theoretical framework of Kim and colleagues (2009) as foundation, we have contributed to the literature on trust repair in buyer-supplier relationships in several ways. First of all our study of 100+ trust breaches contributes by showing that while attempts at blaming external factors (excuses) are more frequent, ultimately level three tactics are more successful. However, level three tactics are not equally effective, with apologies having no effect (low N), promises only occasional effects, and fixing the situation being the most effective. Second, we document that trust repair tactics are often used in combination, for instance apologizing, which rarely appears separately in the data. Extant theory primarily conceptualizes trust repair as isolated attempts and responses. Third, we show that blaming options vary to a great extent with the context. The high variety between our buyer-supplier exchange cases provides different blaming opportunities, which then subsequently affects the broader repair process. We also contribute beyond individual breach/repair situations to series of breaches and repairs over time. Here, we document a level two and three repeat tactic exhaustion process. We also show that when the trustor boundary spanner is unconstrained, resistance may be low and repeat blaming or promising may become an established norm instead of causing exhaustion. Finally, we contribute by showing that boundary spanners in buyer-supplier relationships often have to settle with interpersonal tactics, given perceived dependence and lacking contractual means. In the event of a severe breach, such tactics will rarely suffice causing a taint in the exchange that affects future breach/repair situations. Future research may seek to study breach and repair processes in a broader population, possibly as a longitudinal quantitative study (Langley, 1999). We would also suggest, in-depth dyad interviewing as a complement to our data, in order to gain further insights into the bilateral dynamics of trust breach and repair. Our ethnographic study provided much of this insight, but structured interviewing could add even more. Finally, we suggest that research on trust repair in the IOR context could investigate further the interplay between the inter-organizational and the interpersonal levels of interaction. Our findings show that interpersonal trust repair tactics are clearly dominant in many types of IORs, but they work in a complex interplay with inter-organizational forces that affects the likelihood of successful repair.

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Appendix A: Alpha trust repair

E-mails	Coding
<p><i>From: Alpha Sales</i> <i>Sent: Thursday, May 05, 2016 12:29 PM</i> <i>To: CycleSmart Sales</i></p> <p>Hey CycleSmart,</p> <p>Hopefully your customers are up and running and just happy to finally have the bike.</p> <p>I have attached a special promo on our 5 series product that runs until May 15th. Check it out, and if you have any questions please feel free to e-mail.</p> <p>Cheers! Alpha Sales</p> <p><i>On Thu, May 5, 2016 at 11:25 AM, CycleSmart Sales wrote:</i></p> <p>So am I correct in assuming that I just have to buy one more 5 series model, it seems a little unfair the present this to me at this point having bought 3 units In April on separate invoices... Not sitting well on that...</p> <p>I am pretty sure I could close another 5 series if u can wiggle on the term below. Program details: [Program details listed]</p> <p><i>From: Alpha Sales</i> <i>Sent: Thursday, May 05, 2016 1:39 PM</i></p> <p>Hey CycleSmart,</p> <p>This promotion is nearly as new to me as it is you, and I do understand your concerns, as they do become more prominent the smaller the market. In saying that, this promotion is to offer something of a boost or incentive to further generate sales of 5 series by giving retailers nice improvement on margin for their next sales in that category.</p> <p>I have passed your request by to (Upper manager) (cc'd here) on this promotion, although, due to the mechanics and intention of the sale I would gather this is unlikely. The promotion has been designed to support and encourage further sales going into the summer, not discount previous ones. The motivation, to sell more bikes and help our retailers in their efforts to do the same.</p> <p>Cheers. Alpha Sales</p> <p><i>On Mon, May 16, 2016 at 11:53 AM, CycleSmart wrote:</i></p> <p>So no one including (Upper manager) ever got back to me regarding the % series deal I left 4-5 e-mails and 4-5 phone messages.</p> <p>If Alpha is going to maintain good relations with us and keep us motivated to sell your brand then there should be a lot better communication. After being a dealer for almost 10 years I would expect that at the very least.</p> <p>I am a little disgruntled regarding this.</p> <p>CycleSmart</p> <p><i>On Mon, May 16, 2016 at 12:07 PM, Alpha Sales write:</i> <i>Sent: Monday, May 16, 2016 1:38 PM</i></p> <p>Hey CycleSmart, Did you leave voice e-mails with (Upper manager) or at the here at the head office? I have nothing in my voice mail inbox. I will send (Upper manager) an e-mail requesting some sort of answer, again.</p>	<p>Trust breach (no response regarding promotion)</p> <p>Excuses (passes to sales manager)</p>

<p>Alpha Sales</p> <p><i>From: Alpha Sales</i> <i>Sent: Monday, May 16, 2016 1:59 PM</i></p> <p>CycleSmart ,</p> <p>I have sent another request up the ladder to see if there is some sort of deal we could work out for you, since your territory/shop size isn't suited to such a big order/promo commitment. The silence in the promotion is not due to ignorance of your request, but simply not having anything to offer, that part is on me. Hopefully there is something to offer this week, but please understand there is no intention on my part to ignore your inquiries; I prefer to have answers for any requests in a timely manner.</p> <p>Alpha Sales</p> <p><i>On Mon, May 16, 2016 at 1:12 PM, CycleSmart wrote:</i></p> <p>Thanks Alpha Sales,</p> <p>Yes I left all messages with (Upper manager). Busy guy I know. I was prepared to match the deal if the invoices could be paired.</p> <p>In any case a solution, a "yes we can", or another offer or some sort of positive resolutions to help us out would be great. I do love the brand and have been very loyal over the years even when struggling through slower seasons.</p> <p>Thanks again. CycleSmart</p> <p><i>From: Alpha Sales</i> <i>Sent: Tuesday, May 17, 2016 12:20 PM</i></p> <p>Hi CycleSmart,</p> <p>I still haven't heard from (Upper manager), but I could before the day ends. Otherwise, we have setup a retail view on the portal for potential retailers. URL is (Link) Login and password are (listed) - This allows you to explore the product offerings. Pricing in the preview is USD.</p> <p>Let you know if I hear from (Upper manager) asap.</p> <p>Cheers!</p> <p><i>From: CycleSmart</i> <i>Sent: Wednesday, June 08, 2016 12:21 PM</i></p> <p>Could you kindly find the time to chat or e-mail !</p> <p>I know you're busy but I have tried many times to touch base over the last month with no luck !</p> <p>Firstly pertaining to the 5 series deal that has long past.</p> <p>Secondly my Fondest is growing lesser with lack of communication .</p> <p>I would like to buy 2 TT bikes, both 54cm.</p> <p>One for myself and one for a customer.</p> <p>We have many lines, (Brand 1) (Brand 2), (Brand 3), etc to choose from...however given our history with the brand and our cohesive synergy (in the province) thought hey let's get Alpha but.....</p> <p>Thanks for your Glance one again CycleSmart Sales</p>	<p>Apology and promise (takes responsibility, and promise to do better)</p> <p>Failed repair (buyer still awaiting answer)</p> <p>Not taking responsibility (changes topic)</p> <p>Trust repair failure (buyer not pleased)</p>
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Appendix B: Beta trust repair

E-mails	Coding
<p><i>From CycleSmart Sales</i> <i>Sent : Monday, January 13, 2014 11:37 AM</i></p> <p>Beta Sales,</p> <p>I have to order a (bike model A) in Small for a customer. Are they in stock yet? Also is it possible to change the colour of the crank and handle bar? Thanks CycleSmart Sales</p> <p><i>From: Beta Sales</i> <i>Sent: Monday, January 13, 2014 1:09 PM</i></p> <p>Hi CycleSmart Sales, I'm in a meeting. I'll send you a quick e-mail or call you this afternoon. Thanks</p> <p>Beta Sales</p> <p><i>From: Beta Sales</i> <i>Sent: Monday, January 13, 2014 4:38 PM</i></p> <p>Hi CycleSmart Sales, Unfortunately, the bike is sold out but I could be able to get my hand on one from a shop in difficulty. Is the bike 100% sold to your customer? If so I would get an answer Friday if I can get you the bike or not. In case of a negative answer, there is still only one (substitute model) available to sell in America. If you get the (Bike model A), we cannot change parts on it. It will have to be your responsibility. I'll get back to you as soon as I have more information. Have a great one.</p> <p><i>From: CycleSmart Sales</i> <i>Sent: 21 January 2014 09:03</i></p> <p>Beta Sales!</p> <p>Not a good way to start the season! We were to hear from you last Friday on the (Bike model A)??? CycleSmart Sales</p> <p><i>From: Beta Sales</i> <i>Sent: Tuesday, January 21, 2014 3:19 PM</i></p> <p>Hi CycleSmart Sales, Sorry about that, I just got the answer this afternoon. I should have let you know for the extra delay... It's negative for now. Do you let me search for a bike a few more days? I'm looking all over America if I can 'steal' that bike from someone. Thanks very much and sorry again, Regards</p> <p>Beta Sales</p> <p><i>From: Beta Sales</i> <i>Sent: Wednesday, January 22, 2014 3:57 PM</i></p> <p>Hi CycleSmart Sales, Well I have good news for you and your customer! I've been able to find the bike you need. I'm waiting for an approximate time of availability. As soon as I know I'll get back to you. Thanks for your patience, Have a great one.</p>	<p>Provides potential solution (level 2) (but does not reply)</p> <p>Trust breach – bike out of stock, late reply from supplier</p> <p>Apology, promise to keep trying (level 3)</p> <p>Solution fixed (level 3) – bicycle model found</p>

Beta sales

From: CycleSmart Sales
Sent: 22 January 2014 15:17

Yay !
CS

From: Beta Sales
Sent: Wednesday, January 22, 2014 5:43 PM

Hi CycleSmart,
The Thunderbolt is ready to ship. It will leave the factory with your two demo bikes normally tomorrow. Free shipping.
Regards,
Beta Sales

From: CycleSmart
Sent: 23 January 2014 09:23

You have just very quickly jumped back in to the top 10 !

From: Beta Sales
Sent: Thursday, January 23, 2014 10:55 AM

Glad to hear that! Beta sales

Problem fixed, plus bonus solution

Trust repair success (and further indication of previous breach)

Appendix D: Delta trust repair

E-mail	Coding
<p><i>From: Delta Accounts</i> <i>Sent: Thursday, May 16, 2013 6:07 PM</i></p> <p>Hi CycleSmart Accounts! How are you? I will need more money this week for your booking because we're getting really late with our schedule. And it's not supposed to be like this because I requested (CycleSmart owner) post-dated cheques to ship his booking and he asked for online payment. I accepted as a try....but I don't want to think it was not a good idea! I do understand your position too, maybe it's the credit line for the booking which is too high. So the amount requested is 3 525.00\$. Thanks to confirm your payment and have a nice evening!</p> <p>Delta Accounts</p> <p><i>From: CycleSmart Accounts</i> <i>Sent: 17 May 2013 15:16</i></p> <p>Hi Delta Accounts, Thank you for your e-mail. I don't think it was a bad idea for you to accept online payments from (CycleSmart owner). Unfortunately this season for some reason is not getting off to the usual start that we have had in past years and this is why our payment schedule has been ambitious based on our prior year's sales forecast. I have made a payment of only \$1,625.00 today but please rest assured that we working very diligently to get our payments to you back on track. Thanks and have a nice weekend!</p> <p>(Cheque information)</p> <p><i>From: Delta Accounts</i> <i>Sent: Friday, May 17, 2013 4:51 PM</i></p> <p>I know you're doing the best you can to send me payments! Thanks CycleSmart Accounts, it's great working with you. Delta Accounts</p>	<p>Trust breach – behind on payments and supplier questioning credit limit</p> <p>Provides excuses about sales, and provides partial payment as solution</p> <p>Supplier accepts, acknowledging that they know CycleSmart is trying their best.</p>

Appendix E: Echo trust repair

E-mails	Coding
<p><i>From: CycleSmart Sales</i> <i>Sent: November-18-14 9:41 AM</i></p> <p>Echo Sales, Could you let me know when we should receive the rest of our backordered boots? We are desperate for sizes? And any other back order skis?</p> <p>Thanks CycleSmart Sales</p> <p><i>From: Echo Sales (Junior sales representative)</i> <i>Sent: Wednesday, November 19, 2014 5:34 PM</i></p> <p>Hi CycleSmart Sales,</p> <p>I apologies for the wait. Right now we have some of your (model) boots in stock but we were waiting for a better fill rate before we ship them. Your (model) skates will be on our DC 12/01 and should ship a week after that. The remaining skis have about the same ETA.</p> <p>Do you want me to ship the (boots) now regardless of the fill rate? Thanks!</p> <p>Echo Sales</p> <p><i>From: CycleSmart Sales</i> <i>Sent: November-19-14 5:47 PM</i></p> <p>Unbelievable. How do you folks expect us to sell stuff if we don't have it? I will think about this and consider cancelling all backorders; please send me a list of what you have and could potentially ship. CycleSmart Sales</p> <p><i>From: Echo Sales (Junior sales representative)</i> <i>Sent: Wednesday, November 19, 2014 8:19 PM</i></p> <p>I do apologise CycleSmart Sales, I'm not sure what happened this year. Attached is a PDF of what is available to ship. Let me know what you would like to do.</p> <p>Echo Sales</p> <p><i>From: Echo Sales (Senior sales representative)</i> <i>Sent: Thursday, November 20, 2014 12:10 AM</i></p> <p>CycleSmart Sales can we air ship you substitute product in 2013 models at discounts. I might be able to send you some (ski model) sooner but could you prioritize size? I am traveling but do get e-mail access but not immediate. Echo Sales</p>	<p></p> <p></p> <p></p> <p></p> <p>Trust breach – did not communicate delays</p> <p>Apology only</p> <p>Fixes problem after pressure, but no follow-up response from CycleSmart</p>

5.0 | Discussions and Conclusions

The journey to understanding buyer-supplier relationships is a challenging one. While much is known about trust and information sharing, there is still a long road to understanding the many theoretical nuances in their connection. This thesis takes another step down that road. The purpose of this dissertation was to examine the link between information sharing and trust within the interactions of buying and supplying firms. It has also examined different types of key interaction episodes that have affected the overall relationships between particular buyer and supplier firms. These interactions have included critical interaction episodes, in general, and the more specific trust breaches and repairs – which can be considered a special type of critical episode. This concluding section will discuss the major contributions from both theoretical and managerial standpoints. It then finishes with a discussion of the limitations of this thesis, and potential avenues for future research.

5.1– Theoretical contributions

There are a number of important theoretical contributions throughout this thesis. First of all, through study 1, this research has focused specifically on how different types of trust can act as an antecedent for strategic information sharing. It builds on the valuable work of Dyer and Chu (2003), Frazier *et al.*, (2009), and Becerra *et al.*, (2008). Results found that when trust is broken down into the components of goodwill and competence trust, it affects strategic information sharing in different ways. In other words, it is too vague to simply suggest that more trust leads to more strategic information sharing. We found that it requires both goodwill and competence trust for buyers to choose to share valuable, strategic information, which agrees with the general positive iterative relationship between the two concepts (Dyer and Chu, 2003; Mayer *et al.*, 1995; Uzzi, 1997). However, the findings expanded on this general relationship, with some interesting results. If only competence trust is present, buyers may or may not see the value in sharing this information, and may actively choose to withhold strategic information from some supplier representatives. Therefore, at this level, information sharing *can* occur, but is not guaranteed. With the presence of only competence trust, other competitive or institutional forces may “overshadow” and prevent the decision to share this information. It is not until the establishment of goodwill trust that information sharing occurs more freely. Interestingly, it was found that trust has its limits and this research shows that some information will never be shared with suppliers, no matter how much trust exists between actors of buying and selling firms (Ryu *et al.*, 2007). This might be what some management researchers refer to as *selective revealing* (Alexy *et al.*, 2013). Information can be withheld

due to institutional or managerial pressures, but it was also observed that managers differ in their propensity to trust across the same levels of the organization (Mayer *et al.*, 1995). This highlights the personal and variable nature of trust.

Secondly, this research sheds light on how information sharing plays a role in the way a buying manager configures and segments their supplier base – which is closely linked to determining how the interactions involved in information sharing influence the buyer-supplier relationship. This has contributed to the literature in two broad ways. For one, it contributes to the debate on whether these managers truly plan all aspects of supplier management, or simply manage these suppliers on an emergent basis. While the issue of emergent and planned strategies is not new to management research (Mintzberg *et al.*, 1976), there is a shortfall in the literature that discuss this issue in the process of supplier segmentation. Much of the existing research supports a formal, pre-planned segmentation approach (Fiocca, 1982; Turnbull, 1990), however our findings suggest a different one. Study 2 revealed that buyers began their segmentation process with a loose plan and understanding of their respective markets, which they try to implement in their segmentation process. Through specific interactions and impediments from suppliers, they must deviate from these plans through a number of emergent actions.

Study 2 also argued that specific actions of buyers that are both planned and emergent, yet has also linked particular types of information acquisition to these segmentation views. It is the actions and private information acquired from suppliers that impede these strategies, calling for a number of emergent actions to take place (Uzzi and Lancaster, 2003). In contrast, extant research on supplier segmentation has generally focused on the use of public information only. Overall, this portion of the thesis contributes to how relationships are actually managed from the point of view of buyers, and not through the process of rationalisation and hindsight. Therefore, in agreement with Dubois and Pedersen (2002), it is quite likely that segmenting suppliers is a process that is too complicated to place into prescribed, and pre-planned approaches.

Thirdly, the thesis moves forward to examine episodes of higher criticality within the email communications of buyers and suppliers, which is a form of information sharing in its own right (Mason and Leek, 2012). Through study 3, this directly addresses the second part of the overall research question, which has built its foundations on interactions episodes from the works of Schurr, (2007), Schurr *et al.*, (2008), and Holmlund (2004). Study 3 analysed the dimensions of episodes that affect their outcomes (which I defined as their degree of criticality), specifically the social space and time in which episodes occur. These two dimensions have been previously shown to be central in understanding interaction episodes (Abrahamsen *et al.*, 2012).

I expanded on this understanding through investigating new and interesting areas for the development of industrial marketing research (Halinen *et al.*, 2012). The social space was examined through the role perceptions of buyers, while time was examined through the idea of critical time. This study builds on the understanding of both of these concepts (Abrahamsen *et al.*, 2012; Edvardsson, 2000; Edvardsson and Strandvik, 2009), while underscoring that these factors, both separately and interdependently, contribute to the criticality of episodes. Borrowing from Blenkhorn and Banting (1991), the criticality of episodes change as the buyer perceives and takes the role of the more “traditional” versus the more “modern” marketer. If an episode occurs during critical time, it can enhance the degree of criticality (Edvardsson and Strandvik, 2009). The most significant contribution lies in how episodes occurring in both social space and critical times develop buyer-supplier relationships through different patterns. Therefore, study 3 agrees with previous research in the development and continuity of relationships by Dubois *et al.*, (2003), but takes the research a step further by specifically labelling the patterns that were observed in terms of social space and time.

Finally, this research has empirically examined the process of trust repair in study 4, and thus contributing to the general interorganizational literature. Trust breaches and repairs are considered as specific type of interaction that affects the interorganizational relationship. Previous research on trust repair in the interorganizational domain has only depicted trust repair through conceptual arguments (Dirks *et al.*, 2009; Janowicz-Panjaitan and Krishnan, 2009; Kim *et al.*, 2009). Moreover, the current research does not often examine trust repair from a bilateral perspective, or how repair tactics change over time (Kim *et al.*, 2006). Through the use of the rich dyadic email data over a four-year period, we were able to derive several testable research propositions about the trust repair process through time. Specifically, this process was examined from a bilateral perspective, which builds directly on the model of Kim *et al.*, (2009). We add to this model in several ways. It was found that the specific buyer-seller context (whether the buyer is the trustee or trustor) affects the ability for actors to make excuses or blame other third parties for trust violations. Repeated use of certain trust repair tactics will have an effect on whether trust is actually repaired or not. Lastly, depending on the resistance of the trustor (Kim *et al.*, 2009), apologies and excuses will either damage the credibility of the trustee over time, or simply become the “new normal” during daily interactions.

5.2– Managerial implications

Generally speaking, this thesis is aimed at the managerial implications for actors of both buying and supplying firms. Studies 1, 2, and 3 focused on the actions and perceptions of the buying firm, while study 4 considered the perceptions of both the buyer and supplier. Uncovering perceptions of buyers can

generally guide the expectations of managers in supplying firms. It can also inform other buyers on how individuals in a similar position to theirs undertake their daily managerial tasks.

To begin, this thesis has implications for managers of supplying firms. From an information sharing perspective, it is well-recognized that these managers should be encouraging strategic information sharing to ensure they can compete in today's markets. We found that encouraging a buyer to share valuable information requires that suppliers must demonstrate their trustworthiness in particular areas. Managers might be able to choose which type of trust they wish to display and develop. For example, if they feel that it would be too costly to develop goodwill trust, they may focus on their competence to encourage only certain types of information. However, if they fail at developing this trustworthiness, or violate that trust, they may only gain a portion of the information that they would have if they acted in good faith, or lose access to this information altogether. Relying solely on competence trust might encourage strategic information sharing, but having a buyer's goodwill trust can help ensure it. Furthermore, we found that the perceived trust differs for individual buying managers, which would suggest that suppliers should be aware of the specific personalities and characteristics of each buying manager they deal with in their daily interactions.

Building on this implication is the fact that sellers may demonstrate their trustworthiness by sharing private information with buying managers (Uzzi and Lancaster, 2003) – especially those who are responsible for configuring the supply base. This research shows that buyers can and will make changes to their initial segmentation strategies when they receive private information directly from suppliers that the buying manager could otherwise not get from public sources. Therefore, suppliers who are up front about their goals, motives, capabilities and other related matters may have a much smoother relationship than those who are not as forthcoming. Moreover, suppliers should recognize that they can influence a buyer's segmentation decisions throughout the entire process, and should potentially do so. Segmentation is not simply planned up front by a buyer, and sellers must realise that their status as a supplier is constantly under review through the revealing of new information.

Finally, for supplying managers, this research is useful in guiding everyday interactions with representatives of buying firms, and helps them understand how these interactions can have longer-term repercussions. The research shows that when buyers take on a certain role, then so will the outcome of interaction episodes that arise from these interactions. Exchange episodes will also be of higher criticality when the buyer is going through a particularly stressful period, which I called a critical time (as derived from Edvardsson and Strandvik, 2009). The interaction of these dimensions led to complex changes, and supplying managers should appreciate and accept this complexity. However, managers of supplying firms

can learn to anticipate how the dimensions of time and social space affect episodes, and they should take actions needed to help the buyer if they wish to continue a cooperative relationship. Conversely, suppliers may choose to be more rigid and firm, if they do not wish to improve the overall relationship. This would be especially true for a situation where trust is being breached, as highlighted in study 4. This research shows that suppliers can attempt to manage these episodes, and it shows how they might be able to use certain tactics to repair trust, or steer the relationship in a more positive direction.

From the perspective of the buyer side of the dyad, admittedly this research is not aimed at, nor does it claim to be a prescriptive approach to management. However, it does uncover buyers' individual perceptions, and provides valuable insight on the link between trust and information sharing, including how this affects their perceptions of how buyer-supplier relationships develop. This could be useful for buying managers to learn about how other managers in similar capacities fulfill their duties. For example, study 2 revealed that buying managers must often deviate from their supplier segmentation plans, and take certain actions to form an emergent supplier segmentation approach. This could be useful for upper management, who must understand that it is not always possible for managers to stick to a strict supplier management tool. It also shows to managers who segment their supplier base that changes to their plans are likely to occur, especially when faced with new, private information that can only be gained through ongoing interactions with suppliers. Therefore, firms may gain insight from this research by showing that uncertainty is unavoidable, and flexibility is a helpful trait for managing supplier relationships.

In a similar vein, this thesis has provided evidence that relationships change over time due to a number of temporal and social factors during their interactions. In study 3, it was found that no two relationship development paths were alike, and that a number of different patterns lead to their current status. The dimensions of social space and time affect the outcome of that individual interaction episode, and the interdependence of these dimensions produce a wide range of episode development possibilities. Buyers and sellers should recognize this, and those who do will understand that relationships continue and dissolve in a complex way, and no simple cause and effect model will capture the nuances and complexity of this process (Dubois *et al.*, 2003).

In terms of trust, this thesis also outlined the ways it can be repaired by managers when broken. These implications can be made for managers on both sides of the relationship. Since trust is such an important concept for buyer-supplier relationships, this is a significant contribution for management. This research shows buying managers that trust is something that cannot be broken often, and when it is, the process to repair it must be carefully considered. Simply offering apologies or excuses may not restore trust to its former levels (although these are the repair tactics requiring the smallest of efforts). More importantly,

trust cannot be repaired through the same process over and over again. This can essentially ruin the credibility of the buying firm, and potentially ruin any chances of building trust in the future. The only way that the repetition of these tactics may work is when the trustor is not resistant to the efforts of the trustee. Trustees should consider the potential resistance of their trustors closely. This research has also made comments on the severity of the trust breach, by demonstrating that a severe breach can taint a relationship, and to repair severe breaches will require a combination of repair tactics by the trustee. Overall, this portion of the thesis shows how managers should proceed in the important aspect of trust repair.

5.3 – Limitations and future research opportunities

With no research being perfect, this thesis is no exception. While I outline that many of the methods are chosen because of a number of strengths, they are subject to several limitations. First of all, as a series of qualitative case studies, the generalizability of the findings is limited. Although these methods may be conducive to understanding the complex issues within this thesis, there could be a variety of more quantitative study designs employed to improve the understanding of the findings. This should be possible, as two of the four studies have presented a series of testable propositions. For example, this could specifically be employed by using a larger quantity of email data than what has been analysed in this thesis. Several prominent researchers have suggested the use of quantitative process methods where numerically coded interactions can be analysed to outline trends over a larger number of interactions (Langley, 1999; Van De Ven and Walker, 1984). Text-mining software may also prove to be a valuable tool in the analysis of a large amount of email data.

Apart from the email data, the interview data for studies 1 and 2 are collected from the buyer's side of the buyer-supplier dyad. This limits the accuracy of the findings, as there is only a perspective built from one side of the dyad. With interview data from the both sides of the dyad, a more complete picture of trust could be interpreted by researchers in future studies. Since trust is a general attribute of the relationship (Barney and Hansen, 1994), this would be a worthwhile addition to the findings of this thesis. In addition to this limitation, the interview data from one side of the dyad were cross-sectional in nature. Adding extra data collection periods over a longer period of time would allow for more in-depth studies of how trust and information develop over longer periods of time. If this were coupled with email data, one could build a very accurate picture of what has actually occurred within the focal buyer-supplier interactions.

The research in this thesis also has some limitations concerning the levels of analysis, however this also paves the way for future research. Study 2 addressed the issue of supplier segmentation, which suggests that the analysis at the network level might be suitable. Yet many of the findings are at the level of the

dyad. All other studies in this thesis also focus exclusively on the dyadic interactions of buyers and suppliers. However, it is well-known that the relationship of one dyad will likely affect the nature of the relationships of another (Anderson *et al.*, 1994). This thesis is limited in this perspective, and future research could underscore the connection of trust, information sharing, and relationship development from the network perspective, and through indirect interactions with other firms. This has been the ongoing focus of the IMP school, for example (Abrahamsen, 2016). Moreover, as explained in the theoretical positioning within section 2, trust can exist across several levels – ranging from trusting individuals to trusting the firms that those individuals represent. In the studies focusing on trust, we have limited this to one level of analysis. Future studies could further explore how trust and information sharing might vary across different levels within and among the firms. This would build even further on the work of Zaheer *et al.*, (1998).

Finally, as Gummesson (2003) and Dubois *et al.*, (2003) pointed out, business-to-business relationships are extremely complicated. This is also what makes them interesting, and a worthwhile area for study. In study 3, I showed five different patterns of how buyer-supplier relationships continued and changed. However, with an equal number of cases, this suggests that there are many more potential patterns. Future research might consider more process-oriented approaches to shed even more light on how relationships develop over time. Related to this idea was the interesting finding that managers have different propensities to trust. It would be interesting to know why this is the case. It would be equally valuable to know if it is possible to change this propensity, or if firms should be encouraging the recruitment of managers who are either more or less likely to trust their counterparts. By combining more data through emails, observations, and interview data, researchers could make great strides in exploring the complex relationships, including the sharing of information, and the central yet complicated concept of trust.

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Appendix A | Summary of relevant literature

Table A: Buyer-supplier interactions			
Author (s)	Research Objectives	Method	Key Findings
(Andersen <i>et al.</i>, 2016)	Explores how the strategic status of suppliers is reached in buying organizations.	Case study of a relationship dyad.	Supplier segmentation involves formal and informal sense giving processes co-constructed by various actors in the buying organisation. Moreover, the process gives rise to the daily formal/informal assessment and reassessment of a supplier's qualities.
(Anderson and Narus, 1984)	Presents a model of channel working relationships from the distributor's perspective.	Interview and survey-based	Developed a model based on outcomes CL and CL _{alt} , as related to manufacturer control, conflict and satisfaction. Overall if a manufacturer is perceived as better compared to alternatives, the relationship will be stronger.
(Anderson & Narus, 1990)	Presents a model of distributor and manufacturer working partnerships.	Interview and survey-based	Proposes a model of the relationships between the relative dependence, communication and outcome given alternatives. These constructs affect firm influence, and satisfaction. Trust is central with communication, cooperation and outcomes given alternatives as antecedents.
(Biggemann and Buttle, 2009)	Explore how context-bounded interactions acquire different meanings, which puts actors into a paradoxical situation.	Multiple case study	Presents a model showing that interactions between two firms depend on its context. "Paradox can be experienced when neither implicative force nor contextual force is dominant, or when a course of action is simultaneously both obligated and prohibited." (pg. 557)
(Blois, 2003)	Explore an alternate view of the relational exchange in B2B.	Qualitative case study	B2B relationships are merely a social construction of reality. Although many writers compare B2B relationships to a marriage, it is important to outline the contrast between the two.
(Cannon and Perreault, 1999)	Determines the effect of the type of relationship, and situational determinants on the evaluation of the supplier by the customer.	Survey-based	Buyer-seller relationship connectors are information exchange, operational linkages, legal bonds, cooperation, and relationship-specific adaptations by buyers and sellers. Show how customer satisfaction and evaluation change on the basis of relationship types from these connectors.
(Celuch <i>et al.</i>, 2006)	Explores the buyer-seller management metaphor in more detail due to the nature of having more detailed information on interactions	Interviews of four relational dyads	Investigates into more detail the nature of relationships on the basis of communication, adaptation, and appraisal process in problem solving. Communication is a salient way of appraising the problem solving process between buyers and sellers.
(Dubois and Pedersen, 2002)	Critically examine portfolio approaches to supplier management and purchasing.	Conceptual	Portfolio approaches often ignore the network effects and interdependencies between suppliers, along with customers. Supply portfolios concentrating on the suppliers themselves are dominant, but a focus on the relationships and the network may be more fruitful.
(Edvardsson <i>et al.</i>, 2014)	Establish the negative critical wave as a disturbance that has an effect beyond the individual business to business interaction.	Case study	Created a typology of negative critical waves, including the dimensions of locus, magnitude, amplitude, and energy. Amplitude included the communication that occurred between both parties in the interaction.
(Halinen <i>et al.</i>, 1999)	Examine change and drivers of change in business networks	Conceptual	Presents a framework for change in business network, discussing radical versus critical changes in dyads and networks, particularly taking inertia and critical events into consideration.
(Holmlund, 2004)	Presents a conceptualization of business interactions over several levels of analysis.	Conceptual	Presents an interaction model with levels of analysis ranging from individual actions to portfolio and network level interactions, as well as the relationship between them.
(Håkansson and Waluszewski, 2013)	Investigate the variation in the content of supplier-customer interaction patterns and the economic outcome as well as the most significant influencing factors.	Conceptual	Presents a model of interactions with influencing factors. Factors influencing interactions: basic social, political and technical context, strategies of companies, earlier interaction pattern.

(Johansson, 2012)	Examine how buyers play different roles in their upstream and downstream interactions.	Case study	Presents a conceptual model linking roles, a firms long-term relationships and short term interactions. Roles are proposed in terms of their ambiguity, flexibility, and tension.
(La Rocca et al., 2017)	Focus on practice based applications within interorganizational studies to study complex micro processes.	Conceptual	The paper suggests methodological opportunities that could improve the understanding of interactions in business relationships: a) “zooming” in and out of multiple sites of interaction, b) consider the fluid multiple roles of actors in business relationships, and c) attempt to actually reproduce interactions in business
(Ness, 2009)	To determine how governance mechanisms and negotiations evolve in retailer-supplier alliances.	Multiple case study	Proposes four types of relational practice: recursively integrative, recursively distributive, adaptive toward integrative, and adaptive toward distributive, and explores how the initial configuration of alliances leads to the evolution of relational practices.
(Ring and Van de Ven, 1994)	Examines the developmental process of cooperative inter-organizational relationships.	Conceptual	Process framework focuses on the formal, legal, and informal social- psychological processes, by which organizational parties jointly negotiate, commit to and execute their relationship to achieve efficient and effective outcomes.
(Sarmiento et al., 2015)	Examine b2b interactions in the trade fair setting, and evaluate its impact on the relationship.	Interview and survey-based	Overall, socialisation episodes, including information exchange within these episodes can improve the quality of the relationship as a whole (trust, commitment and satisfaction).
(Schurr, 2007)	Examine interactions as critical episodes, and explore methods to study critical episodes.	Conceptual	Labels critical episodes as either constructive, neutral or destructive, and suggests the critical incident technique would be useful as a method to explore the impact of critical episodes.
(Schurr et al., 2008)	Explore a framework that can be used to analyze episodes as engines of relationship change.	Conceptual	Identifies influences on interactions and relationship change within critical episodes, including a) asymmetries in actor perceptions and information, b) tolerance zones for interpreting outcomes of episodes, c) difficulties perceiving patterns, and d) relationship entropy
(Wagner and Johnson, 2004)	Explores how firms formulate, manage and control the supplier relationship strategy.	Multiple, qualitative case study	Informants use a range of terminology for classifying their suppliers, the two themes were made of which suppliers to include in the portfolio, and how to manage each one of these relationships. The model they present is a process of planning, implementation, and monitoring & control. These stages are discussed in detail.
(Westberg et al., 2011)	Examine negative episodes and the impact on relationships in sport sponsorship	Case study	The factors influencing the extent relational change were sponsor’s attribution of blame, perceived severity of the incident, media attention, and existing relationship. Degenerative episodes have the potential to terminate a relationship, especially if communication is poor between parties.
(Xie et al., 2005)	Examine B2B relationships using chemistry to help paint a clearer picture for other disciplines.	Conceptual	Makes proposition about the nature of interfirm relationship formation with respect to firm resources, and the type of relationship to be created.

Table B: Information sharing in buyer-supplier relationships			
Author (s)	Research Objectives	Method	Key Findings
(Ailawadi <i>et al.</i>, 2010)	Synthesize what has been learnt about the nature of the interaction between manufacturers and retailers.	Literature review	Highlights several key areas for practice and research: advertising, product assortment, loyalty programs, pass-through of trade promotions, leverage of private labels, and pricing interactions. Also highlights power changes for private versus national brands, and the impact with loyalty in omni-channel retailing.
(Biggemann, 2012)	Report on the role if information sharing in the development of interfirm relationships	Case study	Proposes two dimensions of information sharing of mutual disclosure and multi-faceted, both of which are important for information sharing and the development of cooperative relationships.
(Carr and Kaynak, 2007)	Examines information sharing factors directly related to buyers' performance?	Survey-based	Buying firms' use of traditional communication methods with key suppliers is positively related to the extent to which the information is shared between buyers and key suppliers. Information sharing within a firm is positive to information sharing between firms and supplier development.
(Cheung <i>et al.</i>, 2011)	Investigate the influence of relational learning on the relationship performance of both the buyer and the supplier, considering a wider range of knowledge and information	Survey-based	Relational learning, consists of joint information sharing, sense making, and knowledge integration. These represent an increase in complexity, and positively affect both parties in only some cases.
(Corsten and Kumar, 2005)	Explore and measure effects of ECR adoption on supplier outcomes and when these relationships will be beneficial to suppliers and small suppliers.	Survey-based	Small suppliers benefit in partnering with big retailers, some economic and learning benefits perceived. While retailers may be perceived to get more benefits, suppliers want to work with smart retailers to learn from them. They feel that they may gain more benefits in the long run through learning.
(Davies, 1994)	Explore which of the factors are most associated with delisting manufacturer's products, and breakdown of the relationship.	Interview and survey-based	Frequency of contact and exchange of information are important in maintaining relationships with retailers.
(Duffy <i>et al.</i>, 2013)	Explores the effect that justice has on the engagement of suppliers with CRM data.	Workshop and survey-based	Suppliers are significantly influenced in their use of customer data by how fairly they perceive they have been treated by the retailer. Found support for all aspects of justice besides procedural justice.
(Dyer & Nobeoka, 2000)	It seeks to solve the black box of knowledge sharing in supplier networks.	Mixed method case study	Some rules were developed based on Toyota's practices: intellectual property rights reside at the network rather than firm level, savings due to knowledge spillovers, and the effectiveness of networks in sharing knowledge through different maturity levels.
(Easterby-Smith <i>et al.</i>, 2008)	Reviews the literature on interfirm knowledge sharing, and proposes a research agenda for the management field	Conceptual	Review a model which explains the factors that affect interfirm knowledge sharing, including characteristics of the sender and receiver, and the knowledge itself. Relational factors include trust, power, social ties, and
(Frazier <i>et al.</i>, 2009)	Explores the effect of sharing information on supply chain relationships.	Interview and survey-based	Distributors tend to share internal and external strategic information when dependence asymmetry is in the favor of the distributor, when specific investments have been made by both distributor and supplier. Trust and product-market familiarity have varying outcomes.
(Hsu <i>et al.</i>, 2008)	Examine the effects of information sharing on buyer-supplier relationships and firm performance.	Survey-based	Information exchange is positively related to relationship development and relationship development is positive to performance. Aligning information and goals can greatly help reduce uncertainty.
(Kembro and Näslund, 2014)	Explores whether information sharing is truly an occurrence in supply chain management, and if the benefits are as theorized in the literature.	Literature review	Reports key findings and research gaps, including proof of the benefits of information sharing, and advocates for the case study approach in determining which information should and should not be shared and with which party.
(Kembro <i>et al.</i>, 2014)	Explores the different theoretical perspectives that are used to explore the issue of information sharing in supply chain management.	Literature review	Outlines the research areas in terms of which theories are appropriate for a range of different aspects of information sharing such as why or why not share, who to share with, barriers to sharing, and how to share.

(Kogut and Zander, 1992)	To argue for a new organizational view of the firm.	Conceptual	Categorizes organizational knowledge into information and know-how. Generating new applications from existing knowledge is termed combinative capability. The firm is a repository of knowledge, made up of social knowledge embedded in organizational structures and processes.
(Kulp <i>et al.</i>, 2004)	Develop and test a conceptual framework of the direct and indirect benefits of integrating information.	Survey-based	Most financial benefits come from collaborative practices and not information sharing. Inventory at store level only appear to add benefits to suppliers, while reverse logistics might actually disrupt a supplier's inventory management systems.
(Lamming, Cadwell, Harrison, & Phillips, 2001)	Exploring the difficulties, nature and dynamics with transparency.	Conceptual	Compares different level of transparency with opaque, translucent, and transparent. These levels are linked to the amount of information sharing involved. In this analogy, light is akin to information.
(Lamming, Caldwell, & Harrison, 2004)	Propose a conceptual background for understanding transparency, with an examination of its origins.	Conceptual	Transparency (or lack thereof), may be a significant factor in the success of the relationship. Transparency is only an element of a relationship, rather than a general property of it. They conclude that firms should be able to achieve a certain level of two-way information sharing to accrue benefits to both parties.
(Lamming, Caldwell, Phillips, & Harrison, 2005)	Explores the customer's requirement for suppliers to open their books in negotiations.	Action research	Argues that one-way open-book negotiation is a flawed concept, and it does not lead to the transparency or knowledge transfer intended. Contrasts open-book negotiation with transparency, transparency being a more holistic approach where risk is balanced between the customer and the supplier.
(Lusch and Brown, 1996)	Examines the role of dependence structures on the type of contract used to govern the relationship.	Survey-based	While not central to the findings, the authors note that information sharing helps supply chain partners develop mutual understandings and expectations.
(Mason and Leek, 2012)	Examine interaction episodes to understand their effect on communication practices and the artifact they produce. 3 levels of relationship are examined.	Mixed-method longitudinal case study	Information exchange is better suited for email, problem solving and negotiations for face to face. Vertical, horizontal, standardized and planned time play an important role in how communication is adopted and adapted throughout the relational development. This relates specifically to critical incidents.
(Mesquita <i>et al.</i>, 2008)	Explore boundaries of RBV and relational views in inter-organizational relationships.	Survey-based	RBV explains how trained suppliers outperform untrained ones, but less useful in explaining superior performance that is exclusive to the learning partnership. A significant portion of the knowledge transferred permeates to the suppliers average performance, implying that customers outside the learning dyad also benefit.
(Mohtadi and Kinsey, 2005)	Develop a model of information sharing in markets with powerful retailers and suppliers.	Mathematical model.	Only large retailers are willing to share information, while smaller ones are less willing. Suppliers are able to get the retailer's market data even when no sharing takes place.
(Mohtadi, 2008)	Test incentives for firms in food industry to share information.	Survey-based	Retailers with a large number of suppliers or part of a larger supply chain are more likely to share information vertically than firms in smaller supply networks, possibly due to the fact that supplier opportunism is minimal.
(Olkkonen <i>et al.</i>, 2000)	Shed light on the role of communication in business relationships and networks.	Conceptual	Presents a framework on the role of communication, and the macro factors that must be considered in examining these strategies. They claim that we have to understand the macro factors to understand communication factors, which are important to understand the relationship.
(Samaddar <i>et al.</i>, 2006)	Examine the influence of supply network configuration and partner characteristics on inter-firm information sharing .	Qualitative case study	Proposes that information shared can be broken down to the level of strategic importance versus the volume of information, presents a typology of each variable with effect on information sharing.
(Stone and Condron, 2002)	Explore firms attitudes towards sharing information, and perception of its value.	Survey and case-based	Firms are unaware of the cost and value of their data, and might often not price it correctly if shared. Presents the influences and barriers to sharing information and valuing information in the buyer-supplier relationship.
(Uzzi and Lancaster, 2003)	Examine how informal interfirm relationships affect learning and knowledge transfer benefits across firm boundaries.	Case study	Both types of information can lead to learning through exploration and exploitation of other firms. Both kinds of information encourage learning. The types of informal relationships, either arm's length or embedded will determine a match for the type of knowledge transferred. If this match is not good, there will be inefficiencies.

(Uzzi, 1997)	Examines competitive networks and how the structure of the embedded linkages affects the competitiveness of the network and the firms within them.	Multiple ethnographic case study	Finds that closely embedded relationships have greater trust, information sharing, and problem solving. This paper was one of the first to highlight the “paradox of embeddedness” for firms in a network.
(Vazquez-Casielles <i>et al.</i>, 2013)	Examine how the governance mechanisms affect the willingness of manufacturers and suppliers to collaborate, such as share strategic information.	Survey-based	Strategic information sharing and creativity rests on a platform of social governance. Trust ensures that when strategic information is shared, mutually beneficial solutions are reached, creativity is enabled, and partners keep their reputations. The willingness of information and creativity has an inverted U shape, as too much information can have the same effects as too little.
(Whipple <i>et al.</i>, 2002)	Focuses on the connection between information sharing, performance, and satisfaction in business alliances.	Survey-based	Found that information exchange does lead to alliance satisfaction. Buyers concerned more with accuracy, suppliers more so with timeliness in relation to satisfaction.
(Yigitbasioglu, 2010)	Examine why some organizations collaborate.	Survey-based	It was found that the intensity of information sharing was positively related to environmental uncertainty, demand uncertainty, the key supplier’s dependence on the buyer, the buyer’s dependence on the supplier. In turn, the intensity of information shared is positively related to resource performance, output performance and flexibility performance.

Table C: Trust and information sharing in buyer-supplier relationships			
Author (s)	Research Objectives	Method	Key Findings
(Andersen and Kumar, 2006)	Focuses on the roles of emotions and trust in the development of buyer-seller relationships	Conceptual, with illustrative cases	Proposes a model of how buyer-supplier relationships develop over time. The model focuses on the emotional states of different actors/groups in the firms for different stages of the relationship development, along with the implications for trust building in the relationship.
(Becerra et al., 2008)	Explore the extent to which the perception of trustworthiness and risk affect the transfer of tacit and explicit knowledge in alliances.	Survey-based	Found explicit knowledge is closely associated with a firm's willingness to take risk, tacit knowledge is intimately related to high trustworthiness in the alliance partner.
(Bigne and Blesa, 2003)	Examining the idea of market orientation, trust, and satisfaction from channel research and interpersonal theories.	Survey-based	Interunit coordination, intelligence generation, information sharing all have a positive effect on trust, design and implementation of responses, each of which have been argued to be factors of market orientation behaviors.
(Blois, 1999)	Attempts to clarify the idea of trust within interorganizational contexts	Conceptual	Criticizes the use of trust in marketing studies by failing to account for trust and reliance, the nature of blanket trust, reciprocity, trust and trustworthiness, and whether organizations can trust. Also criticizes the use of survey methods in a few simple measures if it truly captures the nature of trust.
(Blomqvist, 1997)	To arrive at a generally accepted definition of trust by examining its use across several disciplines	Conceptual	Many business-related studies use trust from psychology or social psychology. She proposes the definition of "an actor's expectation of the other party's competence and goodwill (pg. 282)." Taking risk and uncertainty must be present to trust, as under perfect information, there is no trust, but a rational calculation. No information leads to instances of faith or gambling.
(Day et al., 2013)	Explore how trust can be both an enabler and a constraint in the development of long-term buyer-seller relationships.	Case study	Examines behaviors that both diminish and build trust across theoretical categories, such as information sharing. Present a framework based on the trust development pattern and the relationship intensity. Two cases show the paradox of trust-building behaviors which also diminish value-co creation.
(Dyer & Chu, 2003)	Determine if supplier trust in a buyer result in, lower transaction costs, greater information sharing, and better performance.	Survey-based	Trust and information sharing is of dual causality. Trust is a useful in governing information sharing when the product is complex or if there is a high-level of market uncertainty. Building trust also builds value in the exchange relationship.
(Ebrahim-Khanjari et al., 2012)	Focuses on trust building on demand information sharing in supply chains, through a trust building of a salesperson representing manufacturers.	Mathematical model with simulations	Even with a manipulative salesperson time will reveal their competence from repeated information sharing. Benevolent actions and accurate information sharing builds trust.
(Ellström, 2015)	Explore factors that enable and mediating factors ensuring the success of supplier integration in the assortment of retailers.	Case study	The likelihood that a supplier and a retailer will implement supplier integration is positively affected by (a) the retailer's format as a large chain with several product categories represented in its stores and (b) the retailer's trust in the supplier to use its resources to benefit both parties.
(Grzeskowiak and Al-Khatib, 2009)	Look at different types of opportunistic motivations for suppliers, and the extent to which signalling trustworthiness can reduce opportunism.	Survey-based	Signaling a trusting relationship only reduces opportunistic behavior that is due to deceit, but is not effective against cynicism or flattery.
(Huang and Wilkinson, 2013)	Examine the dynamics and evolution of trust, along with the causal mechanisms and processes causing it.	Conceptual	Presents a dynamic model of trust in a dyadic business-to-business relationship, along with relevant propositions. This model considers prior learning, intentions, resources, and feeling and beliefs.
(Kim et al., 2009)	Investigate the trust repair process through cognitive and interpersonal processes	Conceptual	Proposes a multilevel model of bilateral trust repair, considering the degree to which the trustee resists trust repair, and to what the trustee chooses to blame the transgression. Three implications for research are suggested.
(Lado et al., 2008)	Explores whether trust and opportunism mediated by relational exchanges?	Longitudinal survey-based	As trust increases, opportunism decrease, and thus relationism and firm performance increases. A level of benign opportunism is not enough to get in the way of relationism if a minimum level of trust is present. Moderate levels of trust and opportunism are not as conducive to a long

			term value building relationship.
(Mallin <i>et al.</i>, 2010)	Can instances of low uncertainty make someone trust a sales manager? What is the impact of sales control on this?	Survey-based	Trust develops as a result of a decrease in informational uncertainty. Managers may be more apt to trust salespeople if they can monitor their performance. Developing trust takes some safeguards.
(Mayer <i>et al.</i>, 1995)	Explore trust from a variety of disciplines and present a model of organizational trust.	Conceptual	Model presented considers perceived trustworthiness as composed of ability, benevolence and integrity, which, with the trustor's propensity, will affect trust and risk taking in a relationship. The outcome, either being positive or negative will then once again influence the trustworthiness of the trustee.
(McEvily and Marcus, 2005)	Examining the mechanisms that facilitate the acquisition of competitive capabilities from external sources. Learning from both suppliers and customers are key.	Surveys within case studies	While trust is an important element in capability acquisition, joint-problem solving is more prominent driver to act as a linking mechanism between embeddedness and capability acquisition. Trust is important for facilitating many functions. A network resource can be considered inimitable if it is built on trust and related interaction.
(Ozer <i>et al.</i>, 2014)	Determine how the country of origin affects trust, trustworthiness and information sharing of firms in cross-country partnerships.	Experiment	Trust and trustworthiness are what determine the level of strategic interactions, and strategic information sharing. Trust and trustworthiness are disentangled by measuring trustworthiness before interactions, based solely on the country of origin effect.
(Ryu <i>et al.</i>, 2007)	Verify the moderating role of trust in the relationships between environmental uncertainty and a manufacturer's propensity for vertical control over its supplier, and between environmental uncertainty and the manufacturer's satisfaction with the supplier performance.	Survey-based	A manufacturer's perception of a supplier's trustworthiness weakens the justification for more vertical control over its supplier's key decisions. Trust also reduces the manufacturer's discontent with its supplier's performance. Proposes a threshold of trust. That is, when trust is higher, its added benefits have decreasing returns as levels get above a certain threshold.
(Seppänen <i>et al.</i>, 2007)	Review the measurement of inter-organizational trust	Literature review	Reveals the inconsistencies in the measurements of trust that has been in the literature, and connects other common concepts to inter-organizational trust. It distinguishes which concepts are antecedents, consequences, and dimensions of trust, as viewed in the literature.
(Sezen and Yilmaz, 2007)	Examines how dependence and trust affect solidarity, flexibility and information exchange between channel partners.	Survey-based	While flexibility is often determined to be driven by dependence on a channel partner, information sharing is more often related to increased trust in a channel partner. The study implies that different relational behaviours are affected by different conditions such as trust or dependence. So we must be careful to apply certain mechanisms to affect certain relational behaviours.
(Wang <i>et al.</i>, 2014)	To investigate how managerial ties facilitate collaboration, and reduce opportunism, including to what extent information sharing is influenced by trust.	Survey-based	Managerial ties have an impact on the extent of information sharing, but not on the quality of information sharing. Trust mediates this relationship. This identifies a micro-macro link in the trust building process. The quality of information has a significant negative relationship with supplier opportunism.
(Whitener <i>et al.</i>, 1998)	To examine the antecedents of managerial trustworthy behavior and the challenge of initiating trust	Conceptual	Proposes a framework that outlines factors that affect managerial trustworthy behaviour. The model suggests that organizational, relational and individual factors lead to the trustworthy behaviours of behavioral consistency, behavioral integrity, sharing & delegation of control, communication, and demonstration of concern. These in turn also affects the perceptions of trust.
(Zaheer <i>et al.</i>, 1998)	Investigate the role of trust in interfirm exchange at two levels of analysis and assess its effects on negotiation costs, conflict, and performance	Survey-based	Interpersonal and interorganizational trust are distinct concepts, and have different effects on performance. High interorganizational trust can compensate for low interpersonal trust in negotiations. "From the perspective of the boundary-spanning individual in the buying organization, this means that the more one trusts the supplier representative with whom one deals, the more one's organization trusts the supplier organization." (pg. 153)

References to Appendix A

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Appendix B | HomeCo interview guide

Below is a general interview guide for the research to follow during semi-structured interviews. This is meant to simply be a guide and way to generate and probe certain pre-planned points. If other topics of interest arise, the interviewer may adjust the order or content of the questions during the interview.

General Information	
Interviewer:	Date (dd/mm/yyyy):
Participant Name:	Location:
Participant Job Title:	General Observational Notes:

“Pre-interview” phase:

- Anonymity of results and potential use of anonymized quotations
- Informed consent
- Possibility of recording conversation
- I am here to learn as a neutral party, who is unfamiliar with HomeCo’s processes; “Cultural ignorance”.

Participants attributes & experience	
What is your title and role within HomeCo? - What department does this role fall under?	<input type="checkbox"/>
How long have you been working in this role? - Other roles within HomeCo?	<input type="checkbox"/>
Do you have other years of experience in the industry?	<input type="checkbox"/>

Interfirm relational attributes & supply base structure	
Have participant draw or make a list of supplier portfolio on a piece of paper, possibly in a diagram. Have them classify suppliers in some kind of hierarchy according to their importance. - How many suppliers are you responsible for? - How have you organized these categories? Are they your personal categorization? - What do you consider as the most important aspects when evaluating the importance of a supplier? - Can you describe the channel structure among these suppliers? (Are they purely	<input type="checkbox"/>

intermediaries or are they primarily the end-producer?)	
Describe the relationship you have with each supplier, or of key and more distant ones. - Compare and contrast key and non-key suppliers.	<input type="checkbox"/>
How do you interact with suppliers? - How often do meetings take place? Are they on a routine basis? - Are they with one supplier only, or with several firms at once? - What is the main nature or purpose of these meetings?	<input type="checkbox"/>
How willing are the suppliers to interact with HomeCo throughout the different supplier categories that have been drawn?	<input type="checkbox"/>
Do you trust each supplier? Why or why not?	<input type="checkbox"/>
Has there ever been an instance where the supplier acted outside of HomeCo's interest?	<input type="checkbox"/>
Is the relationship open between each supplier and HomeCo?	<input type="checkbox"/>
Do you feel that the organizational goals or priorities are aligned between you and each supplier?	<input type="checkbox"/>
Does power play a role in the relationships? If so, how?	<input type="checkbox"/>

Information Sharing	
Different types of information being shared with each supplier mentioned above, how or when are these types of information shared? When this information is shared, is it a) timely, b) reliable, c) complete and d) useful? Try and use past examples, and ask to link it to specific suppliers. - Product information - Market information - Technological information - Sales data - Strategic information - Process information	<input type="checkbox"/>
What was the outcome of sharing this knowledge? Describe as an example.	
Who generally initiates information sharing? The suppliers or HomeCo? Example?	<input type="checkbox"/>
Is there any information that HomeCo possesses that suppliers do not? - Is there information that suppliers possess that you would like to have?	<input type="checkbox"/>
Do you ever visit the factories or offices of your suppliers? Do they visit HomeCo stores? If so, what are the purposes of these visits?	<input type="checkbox"/>
What are the major challenges in sharing information with suppliers?	<input type="checkbox"/>

Appendix C | Co-authorship statements



SCHOOL OF BUSINESS AND SOCIAL SCIENCES
AARHUS UNIVERSITY

Declaration of co-authorship*

Full name of the PhD student: William James Newell

This declaration concerns the following article/manuscript:

Title:	The effects of goodwill and competence trust on strategic information sharing in buyer-supplier relationships
Authors:	William Newell, Chris Ellegaard, Lars Esbjerg

The article/manuscript is: Published Accepted Submitted In preparation

If published, state full reference: NA

If accepted or submitted, state journal: Journal of Business & Industrial Marketing

Has the article/manuscript previously been used in other PhD or doctoral dissertations?

No Yes If yes, give details:

The PhD student has contributed to the elements of this article/manuscript as follows:

- A. Has essentially done all the work
- B. Major contribution
- C. Equal contribution
- D. Minor contribution
- E. Not relevant

Element	Extent (A-E)
1. Formulation/identification of the scientific problem	A
2. Planning of the experiments/methodology design and development	B
3. Involvement in the experimental work/clinical studies/data collection	A
4. Interpretation of the results	B
5. Writing of the first draft of the manuscript	A
6. Finalization of the manuscript and submission	C

Signatures of the co-authors

Date	Name	Signature
29/8/17	Chris Ellegaard	
29/8-17	Lars Esbjerg	

In case of further co-authors please attach appendix

Date: 29th of August, 2017

Signature of the PhD student

*As per policy the co-author statement will be published with the dissertation.



Declaration of co-authorship*

Full name of the PhD student: William James Newell

This declaration concerns the following article/manuscript:

Title:	Emergent versus planned supplier segmentation in the retail sector
Authors:	William Newell, Chris Ellegaard

The article/manuscript is: Published Accepted Submitted In preparation

If published, state full reference:

If accepted or submitted, state journal:

Has the article/manuscript previously been used in other PhD or doctoral dissertations?

No Yes If yes, give details:

The PhD student has contributed to the elements of this article/manuscript as follows:

- A. Has essentially done all the work
- B. Major contribution
- C. Equal contribution
- D. Minor contribution
- E. Not relevant

Element	Extent (A-E)
1. Formulation/identification of the scientific problem	B
2. Planning of the experiments/methodology design and development	A
3. Involvement in the experimental work/clinical studies/data collection	A
4. Interpretation of the results	B
5. Writing of the first draft of the manuscript	B
6. Finalization of the manuscript and submission	A

Signatures of the co-authors

Date	Name	Signature
29/8'17	CHRIS ELLEGAARD	

In case of further co-authors please attach appendix

Date: 29th of August, 2017

Signature of the PhD student

*As per policy the co-author statement will be published with the dissertation.



Declaration of co-authorship*

Full name of the PhD student: William James Newell

This declaration concerns the following article/manuscript:

Title:	Bilateral trust repair in buyer-supplier relationships – a process study of high-end bicycle trading
Authors:	William Newell, Chris Ellegaard

The article/manuscript is: Published Accepted Submitted In preparation

If published, state full reference:

If accepted or submitted, state journal: Journal of Management Studies

Has the article/manuscript previously been used in other PhD or doctoral dissertations?

No Yes If yes, give details:

The PhD student has contributed to the elements of this article/manuscript as follows:

- A. Has essentially done all the work
- B. Major contribution
- C. Equal contribution
- D. Minor contribution
- E. Not relevant

Element	Extent (A-E)
1. Formulation/identification of the scientific problem	B
2. Planning of the experiments/methodology design and development	A
3. Involvement in the experimental work/clinical studies/data collection	A
4. Interpretation of the results	C
5. Writing of the first draft of the manuscript	C
6. Finalization of the manuscript and submission	C

Signatures of the co-authors

Date	Name	Signature
29/8 '17	CHRIS ELLEGAARD	

In case of further co-authors please attach appendix

Date: 29th of August, 2017

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