Unlocking Buyer Supplier Relationships in IT Sourcing Arrangements

An investigation of buyer value with the dyad relationship as sacrifice dimension

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Executive Summary

This thesis is centered on the subject of value capturing in buyer-supplier relationships within Information technology and sourcing arrangements. The industry is victim to gaps between buyers and suppliers. The gaps are related to the context of interaction and miss-perceptions of buyer value. This is resulting in unsuccessful prospects of the buyer-supplier relationship.

The assignment addresses a two-fold problem within the IT & ITeS industry. First problem is that buyer value is difficult to capture and understand for the buyer. Second problem is that the dyad is being influenced negatively, and positively, by the context of interaction, leading to constrained value capturing.

The thesis uses a multiple case study strategy, collecting data from both suppliers and buyers in the IT & ITeS industry. The thesis uses qualitative methodology using interviews and card-sorting methods, which cross validates the findings with a triangular method mix.

The thesis explorers the field of buyer-supplier relationships and conceptualizes two concepts; value drivers and contextual factors. The findings lead to five drivers of buyer value, and four contextual factors that influence the value drivers.

The thesis concludes that buyer value in IT & ITeS sourcing arrangements can be characterized as either lean or agile. The lean value category is identified as simple episode exchange, whereas the agile value category is identified as complex episode exchange. The lean and agile value categories are negatively influenced by the buyer organizations inability to undergo changes. This is leading to little investment going into the dyadic relationship. The study concludes that the buyers need to invest in the contextual surroundings of the dyadic relationship with its IT vendors, to optimize value creation.

Key words: Buyer-supplier relationships, Value drivers, contextual factors, Buyer value creation

Abbreviations

| AC: | Absorptive capacity |
|----------|---|
| BSR: | Buyer supplier relationships |
| CEO: | Chief executive officer |
| EDI: | Electronic data interchange |
| IT: | Information technology |
| ITeS: | Information technology enabled services |
| KMV: | Key mediating variable |
| NASSCOM: | National Association of Software and Services Companies |
| PWC: | Price Waterhouse Cooper |
| SRM: | Social Relations modeling |

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1. Introduction

The story of Information Technology starts in the 1990s with the emergence of the internet supporting and enabling business extensively. Back then IT was treated as a support tool by large enterprises, and perceived as a tool for augmenting efficiency. But over the next two decades IT changed rapidly with concepts such as: EDI, Cloud computing, big-data, and ERP systems. IT now possesses a tremendous influence on business performance, competitiveness and structure. This growing impact on business models delivered by IT has changed the perception of IT. IT is no longer merely an enabler and supporting tool. One consultant from a global IT-vendor expressed the changes as:

"IT has evolved a lot, if I have to compare the IT job specifications in 1990s, in India to today it was mostly one way communication were orders where coming in and we just followed specifications from buyers. Now we are more into consulting and collaborating more closely with the buyer." (Shasma 2016)

In short the IT industry has evolved into a very complex market with numerous prospects. This has resulted in the emergence of a highly skilled labor-pool of IT experts forming specialized vendors seeking to offer their specialized services to different industries. The change means that more businesses have to engage in BSR with IT-vendors if they are to obtain the benefits of new IT solutions. This introduces buyers to a whole new kind of supplier relationship. Where many buyers beforehand treated IT as a support or enabling tool to their core business processes, they now have to rethink this because of the increasing impact of IT and its potential. One Director of a global IT-vendor described a change towards closer relationships between them and their customers, he perceived the change as an indication of the industry maturing and developing closer relationships was becoming a key success criteria to successfully source IT and serve their customers(Frank 2016). The maturity can be understood as a move from arm's length supplier relationship, towards suppliers being integrated in the buyer's business model, thus becoming a strategic partner on multiple levels, much like the changes the automobile industry had in the 1990s with the case of Toyota (Langfield-Smith, Greenwood 1998).

1.1 The problem the industry faces

One stakeholder disclosed that the buyers in the IT-industry often expressed their frustration with ITvendors and the complexity of understanding the many products, services and possibilities that exist. The informant further explained that costumers always expected the IT-supplier to fail in one way or the other (Anita 2016b). IT projects often take turns and changes, according to a multi-regional director representing a buyer (Ron 2016b) there are often changes in price and also in what specifications the systems should be able to deliver. These changes in arrangements have been known to create frustration between the two parties in the dyad, because of this deviation from the original project specifications. The frustration often comes down to buyers overreaching and demanding too many attributes along the way, resulting in a much higher price than expected at the start of the project. I argue that the overreaching by costumers is linked to a poor understanding of what value activities they are sourcing, both in terms of their needs and the actual outcomes they acquire. Scenarios where a buyer ends up with a different product, or service than they expected has been known to happen in the industry (Shasma 2016, Anita 2016b) This suggests that somewhere along the project expectations are not met. One consultant representing a global IT-vendor outlines his view of the problem the industry faces:

"The problem is that buyers used to treat IT as general support tool that made their life's easier. But now IT has advanced to a level where it's not only supporting the business, its actually creating more business for the buyers by reaching end-consumers faster and expanding their reach further than before." (Shasma 2016)

This brings me to my second argument: the reason the supplier often fails in the eyes of the buyer is the results of buyers still treating IT as a support tool with little impact upon their competitiveness. Thus investing too little in the contextual surroundings of the relationship, relative to a supplier they normally would consider a core partner of their business.

This leaves us with two central questions to address: what are buyers actually sourcing in relationships with IT-vendors? And what are the contextual surroundings that the dyad has to invest in if they are to benefit from the relationship? In figure 1 the two questions are illustrated in a standard BSR context, the buyer on the left hand and the supplier on the right. The arrow in the middle illustrates the change IT has undergone from a mostly in-house activity to the enormous supplier market today, introducing IT to BSR.



Figure 1: The problems the industry faces and the change towards BSR

Source: Own Contribution

1.2 A brief look at similar studies

Value capturing in BSR literature has been dominated by relationships describing the exchange of products, and because of that not many studies investigate the exchange of services. For instance; Ulaga (2003) introduces *value dimensions* with sub-dimensions, which from a grounded point of view resembled the concepts from where value is created, and delivered in manufacturing. Walter, Ritter & Gemüden (2001), introduces *value functions* as a concept, which presents value capturing from a support and primary function point of view, conceptualizing value differently and again using a product-centric supplier industry. Studies around value in IT markets with relation to BSR is also inferior David J. Teece, Gary Pisano & Amy Shuen (1997) suggests that dynamic capabilities are important in IT industry, and connects the managing of it to value capturing as *private wealth creation* for the enterprise. They further emphasize the rapid changes in the industry that this study refers to in a previous section 1.1. They suggest that managing and absorbing the rapid changes is essential for value capturing, in IT markets. This suggests that there is a need for studies investigating IT markets relation to BSR and value creation.

Coming back to Ulaga (2003) and Walter, Ritter & Gemüden (2001), none of these authors offers a complete data collection representing both parties of the dyad. Where the singular view produces indepth understanding of one of the parties' needs and struggles, this study argues that to secure valid data and embrace the change in the industry towards integrated supplier relations mentioned in section (1.0 & 1, 1), there is an additional need for studies addressing both sides of the relationship. By studying dyadic actors independently, biased conclusions of the dyad outcomes and obstacles will occur, producing wrong conclusions (Kenny, Kashy & Cook 2006) which could lead to misunderstandings in the BSR. Biased conclusions could lead to misalignment within dyads; misalignment was investigated by Hald (2012) and found to possibly have a dissolving effect on the relationship, preventing value capturing. The thesis uses the dyadic data sample to build the knowledge around the contextual surroundings of the relationship and how the context of the interaction can inhibit or assist value creation. The interaction process was described by Håkansson (1982) as a process that firms have to engage in to succeed in partnerships, in other words the interaction process is an essential part of the BSR capability of creating value.

1.3 Problem formulation and statement

The purpose of this thesis is to discover and disclose value driving activities immanence from supplier resulting in value for the buyer of IT/ITeS-services. Furthermore the purpose is also to discover and disclose the contextual surroundings that enable, constrain, inhibit or enhance the value creation in a dyad in IT & ITeS sourcing arrangements. By exploring these concepts, the study offers the stakeholders insights towards what drives buyer value, addressing the question of what buyers are sourcing and how it connects to value within the industry (see section 1,1) Furthermore provide an understanding of what obstacles the dyad faces that might prevent value creation.

The purpose can be summed up in two bullet points:

- Disclose and characterizes what drives buyer value in IT/ITeS arrangements
- Disclose and discuss the contextual surroundings role in the dyad, and how the surroundings should be used, to optimize value creation.

1.3.1 Research question

Given the challenges that the industry faces, the study acknowledges that it is of significant relevance that the value driving activities and contextual factors dominating the industry are disclosed. If this gap between suppliers and buyers is not investigated relationships will continue to be constrained, or even suffer breakdowns. Besides the problems that the industry faces, the industry retains magnificent potential which makes this research question even more important. Considering the recent impact of applications such as Mobile Pay, Pokémon-Go and Quick-pay with credit card in stores, they are clearly products and services that have influenced the daily lives of millions of people and should be viewed as successful relationships between banks, gaming companies and IT-vendors. This leads me to my research question:

What drives buyer value within BSR in IT & ITeS sourcing arrangements, how is it characterized and how is it optimized through contextual factors in the dyad?

1.3.2 Outlining the research question

The first part of the question relates to the disclosing of what buyers are actually sourcing in the BSR with IT-vendors. By characterizing the value drivers my hope is to create a simplified picture of what buyers are trying to acquire from IT-vendors, outlining what buyers should expect from the relationship. The last section of the questions relates to the contextual surroundings of the dyad, pursuing an understanding of the dynamics that might optimize the value creation capabilities in the dyad.

Given the complexity of the research question this study found it necessary to add three sub-questions to be answered in this study. The first sub question relates to what concepts of value driving activities already exist in the literature. This becomes relevant when trying to explore the fuzzy picture of value capturing that already exists in the industry. By drawing knowledge from other industries and cases, the study obtains different perspectives and ensures a broad possibility of outcomes. Sub-question one is:

SQ1: What are the concepts that literature uses when investigating BSR and value driving activities?

The second sub-question relates to SQ1 by using the findings of SQ1 to test the experts in the field and allow for a more structured approach. By structuring the approach from literature, with concepts, the

second sub-question allows the author to test and understand these concepts from the perspective of the participants. This allows the experts within the field to guide the research. Sub-question two is states as:

SQ2: Given the found concepts in SQ1, which ones do empirical experts within IT & ITeS, BSR, find to be either value drivers of contextual factors?

The third SQ is concerned with the applicability of the concepts, how do they fit in the relationship interaction and how do they apply to buyer value if the dyadic relationship are to utilize its potential? Sub-question two is stated as:

SQ3: How can the contextual factors and value drivers found, be applied to dyadic relationships, for optimized value potential?

1.4 Delimitations

This section will outline three areas that could be relevant for this study but were not integrated into the research design because of a variety of reasons.

1.4.1 Testing for misalignment

The problem the industry faces could very well be of a misalignment nature. The frustration and relationship breakdowns in the industry could be the result of misaligned expectations and this thesis also acknowledges this and recommends this for further investigation in future studies. However this thesis did not obtain data from a specific dyadic relationship: the suppliers and buyers in this study was not linked as partners, they were simply representing their part of the dyad and referring to their own relationships. This means the data was not valid for testing misalignment due to data representing actors from different dyads and testing for misalignment requires data from both parts of the same dyad, not actors from separate dyads. The discussion of dyadic perspectives and analyses will be outlined in the methodology section. Another obstacle concerning misalignment was that the literature did not present valid and reliable knowledge of which concepts and factors were dominating the industry; therefore before investigating misalignments one has to understand what factors and concepts to test.

1.4.2 Segmentation and market composition

The thesis very briefly identifies and divides the industry into IT-services and enabled IT services. The segmentation is very broad, thus generalizing the market and diminishing the quality of the conclusions. In a perfect world the study would seek to understand the different segments of the industry and link the dominating concepts and factors to the appropriate segments of the industry.

1.4.3 Supplier outcomes

The thesis is only interested in the buyers' outcomes, assuming that the supplier is only interested in satisfying the buyer needs and avoiding both termination and constraining of the relationship.

1.5 The scope of empirical investigation

First of all the industry is classified as a service provider industry. The literature often distinct between service-centric phenomena's and product-centric phenomena's, this case and this study will investigate the service-centric phenomena using the IT & ITeS industry as the source of empirical investigation. Defining the industry is important because of the complexity that exists in the market place (Sudan et al. 2010) segment the industry in two categories: IT-services and IT-enabled services each category consist of multiple sub divisions and can be seen in figure 2. The two categories provide the reader and the study with an overview of the industry and are used when seeking to understand the case companies' role in the industry.

The industry has a global reach with main positions in Canada (29-27%) and India (54-37%) according to Sudan et al. (2010). The numbers differ depending on which of the market segments you look at, however the two leading offshoring and sourcing location are India and Canada. The three most commonly served industries are: Banking (29%) Insurance (14%) and manufacturing (19%) found by Sudan et al. (2010). Estimations show that in 2010 the addressable market consisted of 475\$ bn. With only 27 % of the market being addressable (Sudan et al. 2010), hence, the market is of a substantial size but also withholds a tremendous opportunity for growth.

| IT-ser | IT-enabled services | |
|--|--|---|
| Application services | Engineering services | Business process services |
| Application development and maintenance Application development Application development integration and testing Application maintenance | Manufacturing engineering • Upstream product engineering - Concept design - Simulation - Design engineering | Horizontal processes Customer interaction and support (including call centers) Human resource management Finance and administration Supply chain (procurement |
| System integration • Analysis • Design • Development • Integration and testing • Package implementation IT infrastructure services • Help desks | Downstream product engineering Computer-aided design, manufacture and engineering Embedded software Localization Plant and process engineering | logistics management) Vertical processes • Banking • Insurance • Travel • Manufacturing • Telecommunications • Pharmaceuticals • Other |
| Desktop support Data center services Mainframe support Network operations Consulting IT consulting Network consulting | <i>development</i> • Product development • System testing • Porting ¹ /variants • Localization • Maintenance and support • Gaming | Knowledge process outsourcing Business and financial research Animation Data analytics Legal process and patent research Other high-end processes |

Figure 2: The market typology of IT services and IT enabled services

Source: (Sudan et al. 2010)

However; NASSCOM estimated the addressable market for the industry to be over 500\$ bn. already in 2008. The estimations can vary depending on the source; it can be linked to the many different segments of the industry and definitions within the market. The supplier industry is consisting of many medium sized companies, because of the world-wide digital services nature that gives most suppliers a global reach. For instance this is seen in the Indian market where export revenues constitute of two-third of the total revenue in the Indian industry (PWC 2016). The Indian market alone consist of approximately 20 major players (Palk, Blower 2015) not counting the small to medium sized suppliers. Taking a closer look at the exports of the largest supplier market (India) the IT-services makes up by

far the most of any of the sectors followed by business processes management(Palk, Blower 2015). The break-down put forth evidence showing that IT-services are the most important segments in the industry measured by export revenue, this further builds for a relevant study concerning the value capturing in service sourcing arrangements within IT & ITeS markets. Figure 3 illustrates the export of Indian suppliers giving an indication of the spread between revenue and service product. The high share of export also indicates that IT-vendors is highly involved in BSR across the world.



Figure 3: Indian export distribution

1.6 Thesis structure

Chapter 1: outlines the problem of the industry, the purpose of the paper and the research question investigated. **Chapter 2**: concerns methodology, the section provides overview of what methods; data collection and techniques used in the process of answering the research questions. **Chapter 3**: contains the body of knowledge within the field of research. Theories are outlined and the conceptualized framework is proposed.

Chapter 4: contains the analyses of the thesis. The section contains the findings of the two data collection methods. **Chapter 5**: takes a deeper look at the findings and discusses the causal links between the findings and how they apply to different value scenarios.

Chapter 6: is the conclusion drawn from the previous sections. The conclusions pursue to answer the outlined problems in chapter 1. **Chapter 7**: Outlines the implications of the thesis, the section consist of academic implications, future research suggestions and the thesis generalizability. **Chapter 8**: critically assess the limitations of the study.

Chapter 9: presents the references used in the study and also references to interview used. Chapter 10: contains the appendix of the study material used in several sections.

2. Methodology

The section outlines the choices I have made towards answering the research question. The section will start with a philosophical outlining of my perception of the world and how I intent to create valid knowledge.

2.1 Philosophy of research

This section outlines how I perceive the phenomena of investigation, by outline what I recognize as valid knowledge, and how this creates the bases for my arguments leading to my conclusions.

The bases of relationships are the interaction involving the exchange of products, information, monetary and social contexts (Håkansson 1982). In this interaction actors within the relationship are faced with problems every day, thus they are experts in the process of exchange surrounding the BSR and the actions one needs to take towards solving problems in the field (Mello, Flint 2009). I view the actors within the BSR who is connected to the interaction in the dyadic relationship as experts and their opinions as valid knowledge of the phenomena investigated. Elaborating further, I recognize the world as a series of interactions between individuals within companies. This world view makes the research highly subjective, involving social complex structures (actors, relations, interactions) advocating qualitative aspects. This further means that the validation of what is true knowledge (Findings, conclusions) will be based on argumentations rather than scientific proof. This fits an Interpretivist ontological perspective(Saunders, Lewis & Thornhill 2000) which seeks to discover meanings and

concepts that actors within a specific social context solve on a daily bases (Mello and Flint, 2009). Mello and Flint (2009) further emphasizes the need for qualitative research within logistics and SCM, duo to over representation of quantitative thinking within logistics and SCM, researchers produce similar results within the field. I seek to accommodate this suggestion.

The Interpretivist view focuses on social structured phenomena's as epistemology point of view(Saunders, Lewis & Thornhill 2000), this emphasize the detail of the situation which the actors within the BSR describes, thus understanding their subjective meanings, actions and perceptions is what I consider valuable and acceptable knowledge.

As a researcher gathering and describing these phenomena's I am forced into a value bound role, which means I am part of what is being researched (Saunders, Lewis & Thornhill 2000). This implies that my subjective influence is unavoidable when entering into the empirical gathering of data, but also the later interpretation of it. This is an important notion because it has significant influence on the conclusions and validity of findings in this study. Knowing this is both important for the reader but also for researcher because it emphasizes skepticism towards my own findings.

2.2 Research approach

The section will address; research design, use of abduction, methodology choice, and research strategy.

2.2.1 Research design

The research is designed to explore literature for concepts of value capturing in BSR and to test and understand these concepts in an empirical investigation of IT & ITeS sourcing arrangements (abduction). The research will use multiple case study strategy to obtain knowledge from both suppliers and buyers of the BSR arrangement. The study seeks to descriptive analyses, and test, the findings with triangular data collection. In the discussing of the findings casual elements will be used to answer the questions of how the factors and value drivers interrelate. Figure 4 takes the reader through the entire project and illustrates how the research design enables the thesis.



Figure 4: The research design and overview of the project

Source: Own contribution

2.2.2 Primary and secondary data

I distinct between primary and secondary data as: Data collected and constructed by myself (primary data) and data collected and construed by others (secondary data). This is important to understand

because I use an abductive research approach where the deductive phase only consists of secondary data in the form of journals and books. The inductive phase only uses primary data gather and conducting by the researcher, in an empirical investigation.

2.2.3 Deductive phase and data

The initial phase of the project sought to develop and understanding of the nature of the field of research and explore the concepts related to value capturing. The main value adding aspect of the deductive phase was an extensive overview of the concepts that could be used for card-sorting exercises and testing in the inductive phase but also the identification of trends within the literature methodology and theory development for my own and the project development. The deductive phase is than the foundation of my conceptualized framework used in the inductive investigation later in the project. The data collected for the deductive phase is described as *secondary data (Saunders, Lewis & Thornhill 2000)* mostly consisting of journals and market reports. The deductive phase should be viewed as an exploratory section seeking to understand literature but also to discover concepts relating to value capturing to use in the inductive phase, thus the deductive phase is not descriptive but explorative.

2.2.4 Inductive phase and data

As the deductive phase ends the inductive phase begins. The inductive phase creates *primer data* to test and understand the empirical experts from the bases of the conceptualized understanding developed in the deductive phase. The inductive phase uses case companies as its *primary source* of data development and uses a mix of Interview and card-sorting methods, referred to as a triangulation of methods (Saunders, Lewis & Thornhill 2000).

2.2.5 Qualitative research

As described in the philosophy I strive to comprehend and understand relationships. Relationships consist of actors; hence the process of interaction within the dyadic relationship is a complex construct that is highly exposed to subjective opinions and in this case, especially; different value perceptions. The methodology of this thesis is therefore qualitative: This method was chosen in order to understand the complex context; this is the strength of the qualitative research and especially the interview method (Kvale 1994). On the other hand; qualitative research is not capable of validating any conclusions and

will produce biased results – this implies that the conclusions or use of interviews in this study will be the product of common sense, not scientific validated objective results, which is in line with the Interpretivist perspective. Qualitative research is robust in explorative methods and allows this project to gain an understanding of how the individuals perceive the problem. Triangulation is used towards increasing the validity; this was suggested by Yin (2009) when undergoing case studies. Triangulation will consist of: Interviews and Card-sorting methods.

It is important to understand that interviewers cannot test a hypothesis due to its nature of being subjective, biased and none objective (Kvale 1994) But the interview is a significant method for the development an understanding of how participants view concepts, categories relating to value(Saunders, Lewis & Thornhill 2000). The card-sorting method is chosen because of its ability to test and verify, rather than explore, hence the two methods synergies.

2.2.6 Multiple case study

Case studies was researched and defined by Yin (2009) as a study that: "*investigates a contemporary phenomenon within a real life context when boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used*" The strength of the case study is to understand a real life phenomenon within a real life context which fits the research objective of this thesis described earlier, hence case study is highly appropriate for understand BSR. Yin (2009) distinguish between two dimensions of case studies:

- Singe case study versus multiple cases.
- Holistic case versus embedded case.

If research seeks to generalize its results across an industry it should use a multiple case strategy to investigate within the given context defined (Yin 2009), hence this thesis seeks to use a multiple case study strategy.

The strength of multiple case study approach is that it builds for a robust foundation due to the volume of data, but it also builds for higher external validity because of the broader sample of cases. Yin (2009) encourages researchers to use multiple case studies because it strengthens the results and because it avoids a suspect causes for choosing a specific case.

The unit of analysis is the dyad relationship from the views of buyers and suppliers, making it a holistic case sample, because it is concerned with the organizations as a whole and as a dyad. Finally the multiple cases seek to create literal replication by testing concepts and categories across the sample of cases to find similar concepts, making them generalizable (Yin 2009).

2.3 Sampling

The sample section begins addressing: case sampling, case dyads and the sampling process of the extensive review of journals

2.3.1 Sampling of case studies

Flyvbjerg (2006) explains the strategic consideration required before choosing the bases of what characterizes the case companies. The choice of strategy decides what the project is capable of concluding, the aim of this project is the development of a generalizable theory towards value capturing between two parties in a BSR context of the IT & ITeS industry. This makes for a *random case selection* with an equal distribution of suppliers and buyers. The random selection will be based upon criteria's that makes for a similar context, this decision will further scope to what extend the project can be generalize upon. The case study approach is supposed to create a mix of diverse organizational practices and perceptions, this increase external validity leading to generalizability. Acquiring buyers from two different industries mainly did this, but this was enhanced by also choosing two suppliers with different focus within IT and enabled IT services. The case sample also consisted of two global companies (one buyer, one supplier) advocating that global companies have more influence in markets they make for a better case of generalizability.

The criteria's qualifying case companies was very simple because of the random selection strategy, however the companies had to be scoped to fit IT services. In order to create a complete picture of the research question, it is vital that the project acquires both respondents within the buyer's perspective and the supplier's perspective. The respondent is a critical resource for the project that needs to be managed properly. In addition the respondent also needs to agree and accept different conditions:

Case company criteria's for random selection

- Either a buyer or supplier of IT services'
- Most develop software or IT solutions
- Most buy software or IT solutions
- Availability
- Willing to undergo interview
- Fulfill the criteria's for random selection

2.3.2 The four case-companies

Case-supplier A: Global IT-vendor with focus on consultancy, platform upgrading and switching and AOET asset utilization. The supplier can be considered mostly and ITeS-service provider focusing on high-end services, see figure 2 of the industry.

Case-supplier B: A multi-regional IT-vendor with focus on EDI software solutions and EDI adaptation amongst business partners. The supplier can be considered a IT-Service provider enabling infrastructure and network communication. The company operates mostly in Scandinavia, but also Germany and England.

Case-buyer A: Textile Company sourcing in the global market for textiles to use in the designing and manufacturing of fashion products. The company is part of a larger global group textile group. The participants were seated in the Danish sourcing department.

Case-buyer B: Global manufacturer of construction Items used in large housing and skylight constructions. The company is spread across a global market having multiple manufacturing facilities all over the world. The single participant from this firm was a director of the United Kingdom's sale and operation department.

A table of summery and of the participant quoted in this thesis has been conducted to create an overview of the sample sources:

| Participant name Company activity | | Company size | Supplier or buyer |
|--|--|--|-------------------|
| Frank: director, Scandinavia | IT & ITeS-service provider Case supplier: A | Revenue: 887 million US. Global company | Supplier |
| | IT & ITeS-service | | |
| Shasma: Team leader and programmer | provider Case supplier: A | Revenue: 887 million US. Global company | Supplier |
| Anita: director and founder | EDI-service provider (IT-service) Case supplier: B | Revenue: 7 million DKK. Multinational company | Supplier |
| | FDI-service provider | | |
| Lars: Programmer and costumer handling | (IT-service) Case supplier: B | Revenue: 7 million DKK. Multinational company | Supplier |
| | EDI-service provider | | |
| Marc: Programmer and | (IT-service) | Revenue: 7 million DKK. | |
| costumer handling | Case supplier: B | Multinational company | Supplier |
| Matthew: Programmer and costumer handling | EDI-service provider (IT-service) Case supplier: B | Revenue: 7 million DKK. Multinational company | Supplier |
| | EDI-service provider | | |
| Mette: Programmer and | (IT-service) | Revenue: 7 million DKK. | |
| costumer handling | Case supplier: B | Multinational company | Supplier |
| | Textile and design | Revenue: 3.9 Billion DKK. | |
| Anna: Purchaser | Case buyer: A | Global company | Buyer |
| Mie: Purchaser | Textile and design Case buyer: A | Revenue: 3.9 Billion DKK. Global company | Buyer |
| | Manufacturing | | |
| Ron: Operation and sales | construction | Revenue: 16.4 Million DKK. | |
| Director, UK | Case buyer: B | Global company | Buyer |

Table 1: Participants of empirical investigation

Total number of participants: 7 suppliers and 3 buyers (10) All participants are involved in IT-BSR

Source: Own contribution

2.3.3 Case dyads

The origin of dyadic analysis is from the human psychological field of science that investigates the phenomena of relationships and how two parties affect each other. The criteria of a dyad are that the

two parties are <u>non-independent</u> (Kenny, Kashy & Cook 2006). Optimally all buyers and supplier in this study should be closely connected in order to obtain a valid sample of the dyad, however because of limited access to these relationships it was not possible for me to gather a sample of linked dyads. This means that the case-sample is a sample of buyer and suppliers that don't interact, however the participants was asked to consider one of their relationships before interviews and card-sorting methods was applied, underlining the unit of analyses as the dyad. This decreases the validity of the data sample, because it assumes that; one can connect two dyadic data samples that are not interlinked – That independent variables can become *non-independent*.

According to Kenny, Kashy & Cook (2006) research designs can obtain different views of dyad structure. The standard dyad consist of only two parties interacting in a non-independent context, this means they are affecting each other and dependent on the other party in the dyad. Another structure could be the *one with many* where research is interested in a dyad actor who is operating in a context with more than one dyadic partner. The last dyad structure is referred to as SRM, this structure is used in complex dyad structures and is often used in a statistical research design to measure actor, partner, and relationship effects. This thesis perceives dyads from a standard perspective, because this structure is the most simple. The study is concerned with value capturing activities between buyers and suppliers, extending the actors within the dyad would only create more distortion.

2.3.4 The extensive literature sampling

The review had two functions. Firstly it provided the thesis with broad knowledge of the field of value capturing in BSR. Secondly it provided the thesis with 52 concepts used by literature to describe BSR performance. These concepts where used in the card-sorting exercises, hence essential for answering the RQ.

2.3.4.1 Literature background and approach

The structured approach was chosen to secure a methodical approach, increasing the validity of the overall paper by describing the process used to: select, scan and analyses the literature in order to reduce bias and increase the transparency of the findings (Carter, Liane Easton 2011). Further a structured review increases the replicability and provides a foundation for higher quality research in a field that has untapped potential for further investigations (Miemczyk et al. 2012). The role of

structured literature review is first of all to create an overview of exiting knowledge, for the reader to understand the differences and the similarities and in that sense extending the benefit of the already complete contributions in the field. This literature review seeks to uncover how the current literature identifies and uses value drivers; further the review seeks to uncover the surrounding contextual factors identified in the literature. The second role of the review was to provide the thesis with testable concepts that could be used in the later identification of value drivers and contextual factors. In figure 5 the reader will see an illustration of the two knowledge constructs that are represented in the literature review. The words in each bubble represent the search words used to statically scan the literature.





Source: Own contribution

The paper does not pretend to cover the entirety of the knowledge in the field but in a sense offer a qualified estimate of how the academics perceive the problems stated earlier in the paper.

2.4 Data collection

The data collection section outlines: Literature search process, Interview techniques and card-sorting exercise and finally applied tactics to secure validity and reliability.

2.4.1 The extensive literature search and collection process

The search words (see figure 5) was pinpointed to abstract and text to secure a wide range of papers that was concerned with the two constructs. After conducting the search and gathering the sample, the

papers were examined according to relevance. Each paper was evaluated upon 3 parts of the paper: **Abstract, conceptualizing and conclusions.** To elaborate if none of these 3 parts of the article was concerned with value capturing activities or relationship activities they were dismissed. Further if the context was out of scope the article would also be dismissed – the term out of scope was highly dependent on subjective view but in order to decrease bias a very wide notion of different contexts was accepted at this stage. The outcome of this examine was 84 articles that was accepted out of the 169. The next step in the process was to identify the different concepts represented in the conceptualization of the papers – elaborating; these are the concepts that the authors identified as either an: mediating, anteceding, enabling, constraining or enhancing attributes towards performance in the relationship.



Figure 6: Journal overview and distribution

Source: Own contribution

The review was conducted in Business Source Complete with no preference to journals, but delaminated only to academic papers. The reason no journal was preferred was in order to gain a broad perspective of the two categories: value drivers and contextual factors. This approach to journal choice also scoped the field of study. The concepts were mostly drawn from the operations and technology management and marketing journals (see figure 6). This consequently, bridges the two fields of marketing and operation management.

2.4.1.1 Quality assessment

In order to assess the quality of the review ABS standards was noted on the final sample of 84 articles. ABS rates journals according to impact, citations, relevance etc. The scale distribution is 1-4 and the sample of this study average was 2.17 resulting in above average quality assessment.

2.4.2 Theme of the interviews

The purpose of the interviews conducted in this thesis was to explore and understand the dynamics in their current BSR within the context of IT. The objective of the interviews can be outlined as:

- How is value obtained and disrupted in the BSR?
- What are suppliers providing and what are costumers buying?
- How does a BSR function in this industry?

2.4.3 Interview guide

It's important to point out that the interviews was used to explore and understand, thus different interview guides where developed along the process of gathering data, this was mostly done duo to new knowledge obtained by each interview, accumulating more precise questions and guiding the researcher in the right direction. This is allowed because the interviews are used to explore not to test or show misalignment.

The interview guides was semi-structured Kvale (2004) with different topics and questions relating to the theme of the interview. The interviews were not mean to test or identify misalignment thus different exploratory questions was adopted when appropriate. The semi structured interview creates for a more spontaneous interview which is more likely to create new knowledge and to give raw and true insight to the participant's narrative (Kvale 2004). All interviews would seek to understand the three objectives described as the theme of the interview.

The respectively guides for each interview will be provided with the actual interviews.

2.4.4 Interview techniques and ethics

According to Kvale (2004) predefining the interview format is important to secure validity. This study uses semi-structured interviews to evoke direction but at the same time secure an explorative inductive process. A good Interview question seeks to contribute *thematically* knowledge that is related to

theorizing of the project (Kvale 2004). The more structured an interview is the easier is the translation phase in the later phase of the project, this study seeks to translate interview answers into concepts and categories, in order to do so the study often asked the participant to validate their answers – This technique is referred to as communicative validity which seeks to identify what is being said and linking it to what is actually meant by the respondent. As an example a respondent might say that their relationship to their supplier has become *easier*, in this situation the role of the interviewer is to ask what the word *easier* means, this is done by linking it to the concepts found in the literature of BSR, in this particularly situation the interview might first ask what do you mean by *easier*? Does that mean you become more *efficient*? Does it mean you safe *time* when dealing with the supplier? Does it mean you get a *lower cost* dealing with that supplier? And the respondent might out-line what easy means, validating the meaning of it. The ethical pitfall is not to lead the respondent to the concepts but rather help the respondent to become clearer in their meanings.

2.4.5 Interpretation of interviews

Interpreting the interview findings already began when the interviews were conducted; along the interviews the Interviewer would use a condensing and interpreting analytical strategy. The strategy seeks confirmation from the respondent on "the spot" by asking: "*Did you mean quality?*" And then the respondent can verify or decline: "*No I meant efficiency*", (Kvale 2004). The reason this interpretation method is relevant for this project is first of all because the thesis was conducted by one single person, this makes interpretation of findings highly questionable duo to the subjectively involvement from the interviewer side, both in the creation of the guide, conducting and the analyzing of the interviews, hence, this method was chosen to increase validity. Optimally the findings would undergo other experts in the field to be validated and re-written, this replication method was used by Ulaga (2003) and suggested by Miles Matthew (1994) but duo to lack of resource this was not possible, however this step should be part of future validating of these results. Duo to the explorative nature of parts of the interview the respondent often used spontaneous cases and examples from their relationships, these cases and examples where interpreted with a narrative analyses strategy seeking to bring fourth the goals and points of the examples (Kvale 2004).

2.4.6 Transcribing the interviews

A narrative structure method was optimal for these interviews, this method focuses on the meanings around the stories and gathering the main goals of the respondents (Kvale 2004), furthermore the transcriber should often try to reduce or expand the text to emphasize the meaning of the respondent. The study conducted five interviews with a time span of between one to two hours, transcribing was therefore minimized to only the parts of the interviews that was appropriate for the analyses (Saunders, Lewis & Thornhill 2000). My transcribed sections will be used in the descriptive analyses; references list will be put in the appendix.

2.4.7 The card sorting exercise

One of the projects empirical methods will be based around a card sorting exercise with experts within the BSR field. This exercise seeks to aid the project by identifying the important value drivers and contextual factors, based on the concepts found in the literature review. Card sorting is a user-centered design that allows the researcher to understand the knowledge that expert participants possess within a certain area of focus. This helps the project by drawing out the underlying models within the scope of investigation (Nielsen, Sano 1995). Nonetheless the card sorting exercise can only identify the concepts and should be followed up by questions, getting and in-depth understanding of the concepts for further analysis. Moreover the card-sorting exercise will function as a validating tool, controlling/testing the participant's opinions of different concepts and their relation to value capturing.

Card sorting methods is used in several branches of science, including business (Celeste Lyn 2007). The card sorting methodology presents two overall options; open card sorting and closed card sorting, they both present different purposes depending on the outcome the user seeks. Open card sorting is highly explorative and gives the participants the opportunity to create their own model by developing categories and concepts; hence the approach is strong in creating an understanding of the expert mind of the participants (Celeste Lyn 2007). The closed card sort offers predefined categories and concepts looking to test and validate the model, instead of exploring a new model. This project uses two predefined categories: contextual factors and value drivers, thus relating to the RQ and defining it as a closed card-sorting exercise. The closed card-sorting is chosen because the project seeks to test the deductive conceptualization the thesis presents in section 3.4.

The exercise description:

1: The moderator presents the exercise and the two categories: value drivers and contextual factors and the participant are given the 52 concepts and information structure to sort the concepts under.

2: The seed participant creates the initial structure from a stack of cards and proposes an information structure model based on Contextual factors and value drivers.

3: The card structure is debated and the interview askes critical questions towards placements of concepts potential leading to changes throughout the exercise.

4: A consensus is reached when the information structure stabilizes and there are no more significant changes or obvious patterns of conflict and agreement arise.

Each participant has 10-15 minutes to sort out the cards in the two categories, after this they are then asked to pick the three most important cards for both of the categories. As an example one participant could choose the card named: *Trust* and place it at the top of his/hers contextual factors. From here the interviewer can ask questions concerning trust, what is it? Do you have examples of trust? Allowing the participant from the bases of the concepts to guide the interview and validate each concepts importance. This means that the participants also will undergo questions resulting in a dynamic interview while sorting the cards. The pitfall of this approach is the awareness of not guiding the participants by using the right interview ethics (Kvale 1994). Part of avoiding this is only to answer questions when the exercise is undergoing and when the participants are through with the exercise, the actual interview starts. Further the interview will allow a deeper understanding of the reflections the participants used in order to sort the cards. This reflection is the most valuable knowledge created in this exercise because it forces the respondent to be very concrete about what and why this is valuable, capturing this reflection becomes very essential for further analyses. These interviews can be said to be highly structured around the concepts, thus advocating a more descriptive nature than the semi-structured interviews used prior (Saunders, Lewis & Thornhill 2000).

2.4.8 Concepts and categories

The concepts are the origin of the structured literature review of 169 articles presented in section 2.4.1. The total list of concepts and reference to each concept can be found in appendix A, the concepts also figurate in the conceptualized framework in figure 8.

The categories; value driver and contextual factors are defined in the literature review found in section 3.1.2 and 3.1.3.

2.5 Validity and reliability

The usage of validity in this study has been mentioned several times with examples in previous outlining of data collection methods. The thesis uses three types of validity: Construct validity, external validity and internal validity (Yin 2009). Construct validity refers to the concepts found vie the critical review and used in the card-sorting test. External validity is measured by the robustness and diversity of the case study design, offering a large enough representation of perspectives to generalize from a valid point of view is the essence of external validity. Internal validity is mostly used in quantitative research, however the card-sorting test implies measures should be taken not to interfere with the test results by biasing the participants. The three validation criteria's is summarized in the table below and with applied tactics for mitigating and meeting the quality requirements. Moreover tactics for reliability is also outlined.

Table 2 validity and reliability

| <u>Criteria</u> | Tactic applied in this thesis |
|------------------------------|--|
| <u>Construct</u> validity | (1) Participants was asked how they defined the concepts they chose, (2) the interviews and card-sorting presented both open-ended and structured questions, (3) The structured questions were based as much as possible on previously used definition from literature. (4)Uses Triangularly methods to cross validate data and compare case results. |
| <u>External</u> validity | (1) Uses buyers from different industries. (2) Obtaining and equal representation of the dyadic relationship 2 supplier and 2 buyers. (3) Uses random case selection strategy to decrease selection bias. |
| <u>Internal</u> validity | (1) being aware of not to biases seed participants of the card-sorting exercise when introducing the two categories and how they relate to the concepts (2) only answer(Don't ask) questions while undergoing the exercise. |

Reliability (1) Carefully uncovering the techniques used for undergoing interviews and card-sorting exercise. (2) Critically reviewing the literature for concepts and revealing the structured process or their origin (3) following a case-study sampling process with criteria's fitting a random selection strategy, (4) creating and maintain a case study database containing all interviews, guides and card-sorting pictures.

Source: Own contribution

3. Theory

This section contains two overall sections: The literature review which presents the body of knowledge with Value creation in BSR and within IT markets. The review also presents definitions of the two categories: value drivers and contextual factors. The second section is the conceptualization, the section outlines the theories I use to shape my interpretivist view on BSR and value creation.

3.1 Literature review

This section provides an overview of the literature within four areas: Value in BSR, value drivers, value in IT & ITeS and contextual factors.

3.1.1 What is value in BSR

Upon reviewing the literature it became clear that the term *value* held different perceptions and definitions depending on what point of view and background the research held. One of the first observations was that value captures different meaning depending on research field (Accounting, Supply chain management, Finance, Management and Marketing). So when accessing value, one has to be very aware of what field are the focal point of investigation, but also from what perception does the actual investigation take its place. As an example Woodruff (1997) Investigated value from two different viewpoints: Customers perceived value and owner (company) perceived value. (Bowman & Ambrosini (2010) also addresses this issue and states that the issue and discussion of value is still going on. They additionally state that the notion of value is multidimensional and can be perceived in many different ways. According to Bowman & Ambrosini (2010) value is often perceived differently from the viewpoint of employees, owners, within the organization and customers. Based on these authors documentation it can be established that value upholds many different meanings and is a highly subjective concept. Nonetheless value is extremely important to understand, according to Anderson and

Narus (1999) value is: "*The corner stone of business market management*" and this was further emphasized by (Anderson, 1995, Grõnross 1997; Wilson 1995; Ulaga, 2003; Woodruff, 1997). They additional all identified value as: "*a tradeoff between benefits and sacrifices*" This perception was defined by Monroe (1990) as the ratio between perceived benefits and perceived sacrifice:

Costumer percived value = $\frac{Perceived benefits}{perceived sacrifice}$.

Ravald, Grönroos (1996) modified this definition and added the perspective of relationship sacrifice and relationship benefits:

$$Total \ episode \ value = \frac{Perceived \ benefits + relationship \ benefits}{perceived \ sacrifice + relationship \ sacrifice}$$

This definition integrates operation management and relational marketing perceptions by using both monetary benefits and sacrifices and relational benefits and sacrifices.

This review presents value as a highly subjective concept and argues that the perception of value should always be considered when conducting research and managing value. The importance of understanding what is valuable is well documented; however the concept is loosely defined as a benefit/sacrifice, arguing that benefits and sacrifices are subjective constructs that change in accordance with perceptions.

3.1.2 What is value in IT & ITeS industries

On the bases of reviewing the literature, it is to my understanding that very little research on value in BSR within the IT & ITeS industries has been done. However some studies do touch upon the role of IT usage in supply chains: Kim, Cavusgil & Cavusgil (2013) Argued that supply chain collaboration and responsiveness had significant impact on value creation amongst supply chain partners. They tested IT alignment of supply chain partners and found that; IT-interfirm alignment enhanced collaboration and supply chain responsiveness, thus enhancing value creation in the supply chain indicating that IT-alignment. Another study looked at trust and commitment Ryssel, Ritter & Gemünden (2004) related IT to the atmosphere of the BSR and found that commitment had a significant impact on the amount of communication and processes handled through IT. However they found no evidence that trust impacted the amount of IT usage in the BSR, indicating that commitment were the most important concepts

leading to more IT-activity between partners. The nature of IT markets was investigated by David J. Teece, Gary Pisano & Amy Shuen (1997) who highlighted that the IT market is rapid changing. The constant change advocates the need for dynamic capability management strategies to obtain value, they introduce the concepts of AC used to absorb and integrate the rapid changes to the firms' advantage. The concept of AC seems to be very much linked to IT Sáenz, Revilla & Knoppen (2014) also investigated AC and its impact on knowledge sharing and firm performance. The rapid changing nature of the technology markets introduces time and investments as important variables. Dutta, Lee & Yasai-Ardekani (2014) Found evidence that the value obtained by investing in IT systems did not occur instantly, but over long time periods, further the value creation was linked to the time it took for your competitors to obtain the same technology, thus IT-investments is relatively influenced by the awareness and time it takes for you competitors to react.

Value in IT & ITeS based on this review is dominated by fast responsiveness and the ability to absorb the rapid change in the market. When dealing with rapid changing markets, a need for collaboration, commitment, IT-alignment and effective communication tools are essential for value creation. However no studies found looked at value creation in a dyadic BSR between IT-vendors and buyers.

3.1.3 What is a value driver

The term value driver is a term used in many different parts of the literature, hence the term figurate in finance, marketing, accounting, operation management and BSR. It also figurate on different layers of the business for instance Valanciene, Jegeleviciute (2012) elaborates on different value perspectives and brings forth a conceptual model for the interface of value creation between customers and company, using the term value drivers to describe the value created for customers. This indicate that value drivers is something that exit between customers and suppliers. Elaborating further on the diversity of the term value driver: Changsok Yoo et al. (2012) uses value drivers to describe how startup companies can compete in the technology industries Lin, Tang (2009) Refers to intangible assets (Human assets, innovation assets, relational assets and structural assets) as value drivers. O'Toole, Donaldson (2002) Found 21 value drivers in BSR context were flexibility, lower cost and stability are very significant drivers of value. There exist many examples using value drivers to describe factors or concepts that impact value and this is also the point of the term, to my believe value drivers is: A conceptualization of factors and concepts that impact value or performance positively or

negatively. The ambiguity of value in the context of IT services underlines the relevance for adopting the term value driver. As stated value drivers consist of factors and concepts that impact value. This allows the project to perceive value as a combination of factors, processes, and sub drivers that can be labeled into an overall value driver, as the factors, processes and sub drivers relates to the interaction between the buyer and supplier

The BSR literature does not, to my knowledge, contain a real definition of the term value driver, however the BSR literature offers to a large extend similar concepts: Ulaga (2003) uses the term value dimensions to understand how suppliers created value for buyers in the American manufacturing industry. A value dimension bares the same characteristics as the value drivers by capturing a broader perspective of value factors and concepts. However Ulaga (2003) does not define the term value dimensions, duo to its origin being inductive and grounded in participant's opinions. Other authors uses the term value functions which relates to the direct value adding activities in the relationship (direct functions) and the indirect value adding activities in the relationship (indirect functions) which relate to the activities that doesn't have an immediate effect on the partner firm(Walter, Ritter & Gemüden 2001). The value functions present definitions but have very broad functions such as; *profit function* and *volume function* and further only focused on the supplier's value perception.

Introducing a resource perspective view Hogan, Armstrong (2001) highlights the link to strategic sourcing and resources. They argue that BSR should be treated as assets or resources and that firm's specifically source to obtain. Hogan, Armstrong (2001) refers to the value obtain by the relationship as: relational Asset value (RAV), hence value drivers should be considered a strategic resource buyers are sourcing towards.

Given that the literature did not provide this study with a clear definition of the value driving concept, the thesis - on the basis of the review, defines value drivers as:

<u>BSR-value drivers</u>: Value drivers are a combination of *factors* and *concepts* that are related and drive performance of the dyad positively, the concepts and factors are considered part of strategic resources that buyers are sourcing to acquire - they can further be described as the benefits firms are in the market place to obtain.

3.1.4 What are contextual factors

Contextual factors are the concepts and factors that surround the BSR. Håkansson (1982) presented the interaction model describing the interaction between the parties in the dyad. The model consisted of 4 layers: Parties, environment, atmosphere and interaction process. These four layers capture the interaction between parties and the managing of them is crucial for obtaining the optimal benefits from the relationship. Many authors refers to the concepts and factors in the four layers as mediators Morgan, Hunt (1994) used the definition of a *key mediating variable* set as one that: *drives the process and content of exchange between partners. It is indicative of the nature of the relationship.* They concluded that inter-organizational *trust* and *commitment* was two KMV and disclosed that the two variables had a stronger support in a rival model than if they were tested independently. However contextual factors does not only play a mediating role Humphreys, Williams & Goebel (2008) put fourth several factors that either enhances, enables or constrained the support-orientated purchasing role in the BSR. To mentioned a few: loyalty, long-term purchasing contracts, professionalism, processes and communication. This argues that the mediator becomes a factor rather than a mediator, because the factor now enables or inhibits value capturing.

As an example communication can be a mediating variable enhancing or constraining the value capturing, but if we look at technology capabilities it can either enabling of inhibiting value capturing if present or not present. Treating these two concepts as KMW would not be consistent because they affect the BSR differently. However they are both important concepts and this is why it is relevant capture both, thus contextual factors are enabling, enhancing, constraining and inhibiting factors surrounding the context of interaction between parties in the dyad.

<u>Defining contextual factors</u>: Contextual factors can be described as key mediators and key factors that drives and enables the process and content of exchange between partners of the relationship – The factors do not capture value in itself, they either Enhances, constrains, inhibit or enables value capturing.

| Author | <u>Year</u> | <u>Research</u> <u>Method</u> | <u>Perspective</u> | How Is Value Assessed | <u>Comments</u> |
|--|-------------|----------------------------------|--------------------|--|---|
| Anderson and Narus | 1999 | Conceptual (theory based) | BSR view | economic benefits, technical benefits, service benefits, social benefits | Book |
| Ambrose et. Al | 2008 | Survey/Inter view | Dyadic view | Communication effectiveness | Communication method in BSR |
| Bowman and Ambrosini | 2010 | Conceptual (theory based) | BSR view | Resource based | Value creation and process is defined |
| David J. Teece, Gary Pisano & Amy Shuen | 1997 | Conceptual (theory based) | Single firm focus | Dynamic capabilities known as AC is suggested to drive value in rapid chancing technology markets | AC |
| Dutta, Lee & Yasai- Ardekani | 2014 | Conceptual (theory based) | Single firm focus | How IT investments adds value in the long run and relatively to competitors actions. | Game theory and value delay |
| Hogan, Armstrong | 2001 | Conceptual (theory based) | BSR view | relationships are considered; strategic resources | Resource based view |
| Haakansson | 1982 | Conceptual (theory based) | BSR view | Value is obtained through the interaction with partners | The interaction model (Book) |
| Lin, Tang | 2009 | Survey | industry specific | Value drivers | Appraising Intangible assets in Taiwan Hsinchu science industry |
| Monroe | 1991 | Conceptual (theory based) | Costumer specific | Costumer perceived value is a ratio between: Benefits and sacrifices | Book |
| Ravald, Grönroos | 1996 | Conceptual (theory based) | BSR view | episode benefits and sacrifices and relationship sacrifices and benefits | Theory-based |

| Table 3: | Focal literature | used in | previous | discussion |
|----------|------------------|---------|----------|------------|
| Tubic 5. | 1 ocui incruine | nocu m | previous | aiscussion |
| Revilla, Knoppen | 2015 | Survey | supplier | Knowledge/informa tion sharing | Building knowledge integration is BSR context from a supplier view, the sample data set was obtain in the Spanish manufacturing industry |
|--------------------------------|------|---------------------------------|-------------------------------|-----------------------------------|--|
| Ryssel, Ritter & | 2004 | Survey | Supplier view | value functions | Commitment and trust and its effect on IT |
| Gemünden | | | | | alignment |
| Ulaga | 2003 | Case study | Buyer view | Value drivers | BSR in Manufacturing industry (USA) |
| Valančienė, Jegelevičiūtė | 2012 | Conceptual (theory based) | Single firm focus | Value drivers | Interface between customer value drivers and company values. |
| Wang, Wei | 2007 | Survey | BSR/Supply chain architecture | Supply chain Flexibility | Coordinating for Information Visibility and Flexibility in Supply Chains across randomly selected manufacturing firms in Taiwan |
| Walter, Ritter, Gemuden, | 2001 | Survey\inter view | Supplier | Functions | Value creation in Buyer seller relationship - Multi regional companies in Europe was focal point. |

Source: own contribution

3.2 Conceptualization

This section suggests a deductive conceptualization of theories to be used in the data collection and the later analyses. The framework seeks to label the given concepts, matching literature with the phenomena of investigation. The conceptualization is also shaping the card-sorting exercise; the exercise was outlined in section 2.4.6. The conceptualization can be said to be product of the interpretivist perspective of recognizing the context surrounding the research question.

First the reader will be introduced to the relationship sacrifice and benefit dimensions used in the framework and afterwards the interaction labels provided by adopting the Interaction models 4 layers developed by Håkansson (1982). The origin of the conceptualization is caused by unclear definitions existing when exploring value in service context. The same can be discussed in the case of contextual factors, where literature often uses the term; mediating or KMV not capturing the picture of the variables that might enable or inhibit the dyadic relationship.

3.2.1 Relationships sacrifice and benefit dimensions

The conceptualization of this thesis first of all seeks to capture the relational sacrifices that both parties of the relationship must invest in, to obtain the perceived benefits of the relationship. Ravald & Grönroos (1996) introduced relationship marketing to value capturing; they offered a new perspective of the perceived value between partners in a relationship. Their perspective included a term called "total episode value" and the term captures not only the derived monetary surplus and support services between the two parties but also the effects of maintaining a relationship, the maintaining of the relationships is described as relationship sacrifices/relationship benefits. The relationship sacrifice is interpreted and translated into the category called contextual factors. The category is based upon concepts surrounding the relationship; all these concepts should be viewed as something both parties have to invest in making it a sacrifice, in-order to obtain the benefits of the relationship. The concepts however are not only linked to the relationship as described by Ravald & Grönroos (1996), hence the contextual concepts in this study also consist of concepts.

The benefit dimension is referred to as value drivers - Both value drivers and contextual factors are defined and deducted in literature review section; 3.1.3 and 3.1.4.

The conceptualized framework perceives the two categories as sacrifices and benefits dimensions, the ratio can be formulated as: *Relationship Value ratio* = $\frac{Value \ drivers}{Contextual \ sacrifices}$

3.2.2 Håkansson's interaction model

Håkansson (1982) Introduced the Interaction approach, the model was able to conceptualize a view of variables that effect and shape the interaction between two parties. The model was based upon an industrial purchasing and marketing perspective. The reason this model is valuable to this framework is the fact that it is widely used and tested model for understanding the variables that affect the dyadic relationship. The model will mainly play the role of labeling the many constructs found in the structured literature review. By labeling them the study gathers a picture of how the different contextual factors differ from each other, this is important for several reasons: First of all creating a distinction between factors increases the relevance of the model because of its ability to explain how concepts interrelate and what they are responsible for. In short the theory is used as a structuring tool that helps the study to understand the interacting concepts of the dyad. The interaction model is very general and does not contain concepts used for the specific case of this study, thus the model needs to be calibrated and utilized with additional theories to create a deductive frame-work fitting this phenomenon.

3.2.2.1 The 4 labels of contextual factors

The model uncovers 4 labels that consist of variables that describe the labels. The 4 labels are describes by Håkansson (1982) as: Parties involved, interaction process, environment and atmosphere

3.2.2.2 Parties involved: The parties involved both as organizations and as individuals.

When it comes to understanding the dyadic relationship the first step is to understand the two actors involved, Håkansson (1982) outlines two important factors in this regard: The two actors' knowledge of each other and the structural difference. The familiarity between the two parties is something that can be developed over time thus follows a learning curve, but structural differences concerns the way companies position themselves and this can be difficult to change but is closely related to the idea of adaptation. Furthermore he argues that without familiarity and structural alignment the relationship cannot develop into a close one, but the two parties can still make good use of each other – However will be constrained to certain capabilities. Concepts that might figurate here relates to the difference

between the two parties or similarities. For instance if the two parties operate in different industries they might have structural differences, resulting in a constraining effect on the dyad value creation.

3.2.2.3 Interaction process: The elements and process of interaction.

The interaction process was described from two factors: Relationship development (extensive or limited) and episodes (simple episodes or complex) the two factors relate to the handling of the day to day interactions. The most common situation is the extensive relationship with simple episodes, this is what most interaction consist of according to Håkansson (1982) one of the reasons companies engage in close relationships is to obtain this state. The situation where two companies engage for the first time in a complex episode is the most extreme case were the interaction process becomes highly important. The reason for this is that the two parties don't have any knowledge of each other, this makes social exchange, physical exchange and information exchange very crucial, it essential means that no stage in the process can be left out. When referring to extensive relationships with complex problems Håkansson (1982) explains the scenario often is linked to a crisis or major change in the extensive relationship, the crucial factor here is to identify when the episodes move from being simple to complex. Concepts that figurate in this category is related to the interaction of day to day activities, for instance the concept of communication or personal interaction might influence dyads abilities to create value.

3.2.2.4 Environment: The environment within which the interaction takes place.

The environment is explained by two states: stable or dynamic and homogeneous or heterogeneous. The stability of the environment is according to Håkansson (1982) related to demand variation and the homogeneous state is related to the suppliers differentiation. The most consuming situation occurs when you operate in a heterogeneous and dynamic environment, this makes it essential and costly to change counterpart thus needs major attention from the buyers view. Concepts that might figurate here is mostly related to external factors, such as culture or specific market characteristics influencing the value creation.

3.2.2.5 Atmosphere: The atmosphere affecting and affected by the interaction.

The atmosphere concerns the concepts that surround the entire relationship. These concepts can impact the BSR from many ankles and follows a highly subjective pattern meaning they are perceived differently all over the BSR. The atmosphere is the center of the relationship and functions as a mediating center which affects the all the dyads capabilities. Concepts that figurate here is related to overall satisfaction between the two parties. In a balanced relationship the atmosphere might be strong, creating relationship closeness between the two parties by having strongly defined perceptions of trust, dependency and commitment influencing the dyads value creation.

3.2.3 Concepts used in conceptualization

The extensive review described in section 2.3.4 sought to answer the SQ 1 by disclosing the dominating value driving and contextual concepts used in literature to address relationship performance. The final sample of journals consisted of 86 papers and resulted in a total of 52 concepts described as either value drivers of contextual factors. The total list of concepts is listed in the appendix A with references. However the concepts that were most dominating in the literature are illustrated in figure 8, ranging from publication date 1993 to 2015 and with trust being the most investigated concept in the sample. The number of times a concept was represented in literature plays no significant role in this conceptual framework. However the overview in figure 7 provides insights to what concepts are considered most important by authors researching BSR, providing an interesting additional contribution to literature.



Figure 7: Dominating concept in BSR value creation literature

Source: own contribution

3.4 The contextual sacrifice and buyer value framework

The full conceptualized frame work can be seen below in figure 8. The frame-work consists of all the 52 concepts found in previous review and discussion. The left side of the model should be seen as the concepts the parties has to invest in (sacrifice) in-order to obtain the benefits that are described as value drivers on the right side. The framework provides an answer for sub-question one by bringing fourth the 52 concepts literature uses in the discussions of value driving activities within BSR and structuring them. The framework is the shape of how this study recognizes value and dyadic influencing factors, making it a part of, and a product of, the epistemology and ontology perspective of the thesis.

| Contextual dyadic factors | | | Buyers Value drivers |
|--|---|--|---|
| (Relationship sacrifice) | | | (Relationship benefit) |
| Involved Parties Industry similarities Prior experience Relationship stage Organizational compatibility Environment Culture Market characteristics Technology Relational norms | AtmosphereTrustDependencySatisfactionSocial capitalGuanxiStrategic supplymanagementSupplier controlBuyer supportUncertainty andriskMutualcommitmentJoint investmentsJoint actionsOpportunismFairness andjustificationLong termorientation | Interaction process Communication Absorptive capacity Information sharing Personal interaction Knowledge integration Transactional factors → | Adaptation Flexibility Costumer interface difficulty Service content Supplier performance Stability Support features Quality Delivery Supplier Know-how Innovation Cost (D,I) Operation efficiency Intangible assets Tangible assets Brand Buyer change request Time to market Location Sustainability Transaction cost Process cost Relationship value |

Figure 8: Conceptual Framework

Source: own contribution

3.4.1 Theoretical contribution

According to David A. Whetten (1989) a theoretical contribution is based on four criteria's that researchers should ask themselves; what, how, why and who.

<u>What</u> concepts are relevant in describing the research phenomena? The concepts and categories are of a broad size now with the purpose of testing them in empirical study. However the concepts are relevant to BSR and deducted from literature based on the phenomena of value creation and relationships.

<u>How</u> are the concepts related? The concepts have been structured under two categories: contextual factors and value drivers. The Contextual factors offer several labels relating concepts to a function within the dyad interaction. Arrows are guiding the model displaying that the contextual factors are the ones influencing the value drivers and that the value drivers are the concepts leading to relationship value.

<u>Why</u> is this model relevant? The underlying assumptions of the model and concepts are based on the bridging of technology operation management and marketing literature (see figure 6). Moreover the model provides academics with a new interpretation of BSR by introducing the two categories: value drivers and contextual factors that are specifically defined from different sources within BSR literature

<u>Who</u> is it relevant for and to what extend? The model attains the view of two institutions: (1) the buyer of the BSR and (2) the dyadic relationship. The value drivers attain the perception of the buyer (1) withholding concepts that drives buyer value (right side of the model). The contextual factors withhold concepts that influence the dyadic relationships capabilities of delivering value to the buyer: the contextual factors exist within the dyad (left side of the model) The model than becomes relevant for buyers in terms of outcome, and dyadic relationships in terms of contextual influences upon the relationship.

Going forward, the model is to become more concrete by testing and shaping it to the IT & ITeS industry further constituting its contribution to the context of research.

4 Findings and analysis

This section will bring out the findings of the collected data conducted in this study. The section will focus on presenting the meanings, goals, and examples of the participant and further link concepts to these meanings, goals and examples.

4.1 Findings of the card-sorting test

A total of nine card-sorting exercises were conducted, the distribution was four buyers and five suppliers resembling a close to equal disruption of the dyad. The nice card-sorts were spread across three workshops within 1 month. The results uncovered if participants found the given concepts to be either value drivers or contextual factors. The results determine how the concept is perceived in the conceptualized framework in terms of the two categories. Moreover the total amount of times a concept was picked and put into category also indicated how relevant the concept was. Some concepts resulted in a strong or weak validity when placed in either category. As an example AC resulted in a two versus one score, thus becoming a contextual factor but with a weak validity score because of the low total observations (3) and the difference between the categories being one. The distinction between weak and strong is if there is clear distinction between the two categories. Table 4 presents the test results of the card-sorting exercises.

| Card sorting results | | | | | |
|---------------------------------|---------------------------|--------------------------------|--------------|----------------------|-----------------|
| <u>Concept</u> | <u>Contextual factors</u> | <u>Value</u> <u>drivers</u> | <u>Total</u> | <u>Results</u> | <u>Validity</u> |
| AC | 2 | 1 | 3 | Contextual factor | Weak |
| Adaptation | 2 | 7 | 9 | Value driver | Strong |
| Communication | 4 | 3 | 7 | Contextual factor | Weak |
| Innovation | 3 | 5 | 8 | Value driver | Weak |
| Operation efficiency | 2 | 5 | 7 | Value driver | Strong |
| supplier know-how | 1 | 5 | 6 | Value driver | Strong |
| trust | 7 | 2 | 9 | Contextual factor | Strong |
| Time saving(Time-to- market) | 0 | 7 | 7 | Value driver | Strong |
| Willingness to accept change | 6 | 2 | 8 | Contextual factor | Strong |

Table 4: Card-sorting results

Source: Own contribution

The findings presented in table 4 answers SQ2 by disclosing what concepts participants found important and separating them as either value drivers or contextual factors.

It is important to point out, that the criteria for the concepts presented in table 4, are that they should appeared in both data collection samples (Interviews and card-sort). This implies that concepts could score high in the card-sort but if no evidence was found in the interviews the concept was dismissed. For instance the concepts quality scored a total of seven in the exercise; however explorative interviews did not indicate that quality was of importance to the participants.

The findings of the card-sorting test will undergo a descriptive analyses conducted on the bases of the second data collection sample via interviews in the following sections.

4.2 Value drivers

The following section will present each concept and the findings in the interviews. Each section will start with a short outline of the concept what it is and how it is relevant before exploring the interviews of participants.

4.2.1 Supplier-Knowhow

Ulaga (2003) identified supplier know-how as a technical expertise that the buyers does not hold inhouse and may not be willing to acquire themselves. Other author's points out that supplier know-how is a commonly seen strategic resource made accessible by relationships (Hogan, Armstrong 2001). Supplier know-how also concerns itself with translating knowledge of the supplier market and its assessment into benefits for the buyer Walter, Ritter & Gemüden (2001) identified this as the scouting function. Moreover Ulaga (2003) also touched upon the supplier role in creating new products and provide feedback of opportunities within the supplier market that could be used for mutual benefit. One major role of the suppliers is to guide the buying firm towards the newer technologies and opportunities that the IT & ITeS industry presents. One respondent explained a scenario were a customer is currently working on an out dated platform seeks to invest in a new one:

"The insurance banks are at a disadvantage because of the high internal investment on their older platform, which is now no longer needed duo to technology evolution. This puts the major

banks in a disadvantage towards smaller startups....What we as suppliers can do is enable a fast transaction towards the newer method and that new vision of running the business" (Frank 2016)

The participant touches upon a scenario where buyers seek to change IT-platforms and how their know-how helps buyers in replacing older IT solutions; he also concludes that their expertise does not lie with running the costumers business but instead consulting them from an IT perspective. He additionally talks about the costumer's knowledge of their industry and how it has changed

"IT is becoming a transparent project where there is interaction on a weekly bases, this is a strong model, because our competences are impossible to develop internally in a buying company" (Frank 2016)

In the traditional process supplier know-how was a simple matter of meeting specifications and adjusting the systems but as the participant explains, co-creation and closer communication is becoming a normal model, and he points out that, the supplier know-how are what drive this. Buyers are benefitting from their expertise, this expertise is impossible to develop internally in a company, making supplier know-how a value and unique resource. Another participant representing a buyer also pointed out how the suppliers knowledge of the supplier market is important to them:

"We highly rely on IT-suppliers to keep our systems up to date and also to inform us of possibilities. (Ron 2016b)

The participants of the other buyer in this sample also verified that supplier knowhow is relevant and they suggest knowhow to be linked to communication.

"I will start with the value drivers, because these where the easiest part for me. Communication and knowhow is linked in my opinion and are important" (Anna and Mie 2016)

One supplier further validated their knowhow and specifically linked it to the integration of systems:

"we have knowhow and we understand how to integrate the systems from prior cases using the best method, this is how our knowhow/expertise helps performance" (Shasma 2016)

Supplier know-how is an important value driver in the IT & ITeS industry. It is clear that the change in the industry has put more emphasize on the value obtainable through closer relationships with suppliers by gaining access to their know-how. Suppliers was also expected by the buyer to keep them up to date with opportunities coming from the IT industry, this indicates a scouting function related to the suppliers knowledge of the IT market.

Sub-drivers found:

- Knowledge and expertise within IT & ITeS
- Scouting function
- Knowledge of fast transition between old and new platforms

4.3.2 Innovation

Innovation plays an important role in many industries today. It has become an important value phenomenon that crosses firm boarders and becomes a supply chain phenomenon. For instance, Toyota involves their suppliers in the early stages of product development and this creates valuable feedback to mangers of the buying firm which results in better efficiency when it comes to innovation (Revilla, Knoppen 2015). Additionally Toyota provides physical space in manufacturing centers seeking to integrate the supplier closer to the buyer. The buyer then have better capabilities when it comes to joint decisions and idea sharing but also upward feedback in order to impact strategic R&D (Katsuki Aoki, Thomas Taro Lennerfors 2013). One participant touches upon how ideas about technology become part of the relationship and that their role has become more co-creative relative to the past.

"Ideas about technology comes from us but ideas about products going to market, is their business..... Co-creation is a thing now, relatively to back in the days, but co-development is often limited with patterns (IPOs), this means innovations reside with the buyer but we are still part of the process, especially the implantation phase" (Frank 2016)

The participant continues by drawing similarities to the automotive industry and the IT & ITeS industry:

"if we look at different industries they have all matured on different levels, for instance the automotive industry. That industry is depended on their close relations to suppliers and cooperations in producing a car, the manufactories would sometimes own a small part of the suppliers business and this trend we now see in other industries including IT-services. IT-service companies are becoming dedicated partners, working together on a long-term bases, this enables higher investments and higher volumes" (Frank 2016)

The two quotes from the participant outlines the growing focus on innovation and supplier integration. His link to the automotive industry is interesting because of the Toyota example that literature uses as a case example for better innovation development in the supply chains – the case was described in the brief look at literature in the beginning of this section.

These statements are an indication of the changing role of IT in the buying firms structure, were IT previous was an enabler, it now plays a more strategic role on different levels in the organization, including innovation. The participant further talks about innovation while undergoing the card-sorting exercise and link innovation to a value driver category and even states that over time innovation is most important value driver:

"Over time Innovation will become number 1 value driver. The costumer will look for am ITvendor that can deliver and be satisfied with that, but in the long run they look for innovation" (Frank 2016)

When he is asked about the how innovation comes about, he explains that innovation is a mix of new ways of maintaining and developing systems but also cases of creating new ways of severing the buyers end costumers:

"It's a combination of both, there is innovation even in maintenance of systems earlier we needed 10 people now we only need 5 so the process of maintained is also innovating (changing) and then there is green field project, these project are linked to new technologies that has arrived" (Frank 2016)

To sum up innovative projects consisted of a mix of Greenfield projects and upgrading/maintain of systems. The role of the IT-supplier was very highly linked to the introduction of new technologies and the implementation of these, leading to a closer relationship. One participant linked industry maturity and closer relationships to innovation.

Sub-drivers found:

- Upgrading and maintaining of IT systems
- Creation of greenfield projects consisting of new technology and implementation
- Closer relationships with focus on innovative solutions

4.3.3 Time saving (time-to-market)

This concept was treated as Time-to-market in the card-sorting exercise; however findings indicate that participants did not perceive the concept as strictly; lead time and the process of pushing new products towards the market. Participants indicated a more general opinion towards the time saving aspects of IT-services both towards lead time and internal overhead processes. The different findings surround time-to-market will thus be considered time saving rather than time-to-market.

Time has become a very important factor in supply chain theory and is seen when more companies adopting agile strategies to meet customer demand faster (Christopher 2000). Speed and time have become part of the strategic platform for managers; hence it is part of the supply chain design of their business structure (Stalk jr. George 1990). The participants of this study generally agreed that one of the main purposes of IT-services was to impact time saving positively, but not only when it comes to time-to-market but also with operational processes in the buying company. The time saving benefits obtained by IT have been known to be; improved productivity or operation excellence (Basu, Fernald 2007).

Two respondents elaborated on the effects of time and how they as supplier provide time savings in many different areas of their costumers business:

"Time is a very important factor in this situation. From when you type in the data and till you get the information, or when do I get the product or certificate on my bank deposit – these are all related to process time and how much of physical contact is required to do all this. IT enables the option for less contact and this safes time (Frank 2016)

"Costumers feedback told us that amongst data security, things linked to time saving, is highly valuable: Latency and process time in this case" (Shasma 2016)

The two participants underline that time saving is important and it is linked to decreased physical contact and time of processing information between parties. The participants also mention several different scenarios where time saving plays a role; insurance, banking and government are three different cases of time reduction plays a key role for the buyer.

"talk about another case where efficiency was the outcome for a gaming company: We developed an application that safe them time in the developing phase of physical prototypes, this application can also be used for other industries all you need to do is calibrate the application to fit the new industry and instead of having ten physical prototypes companies can use this kit." (Shasma 2016)

The statement implies that IT solutions help the costumer in the product development phase, indicating a clear time-to-market benefit, by saving cost on the development and enabling a faster process.

The two participant's highlights that time saving refers to: less physical contact, process time, latency decrease and time-to-market.

Sub-drivers found:

- Less physical contact
- process time
- latency decrease
- time-to-market

4.3.4 Adaptation

The participants in this study did not distinct between adaptability and flexibility, in order to clarify the differences this section will start by defining the concepts. It's important to make this clarification to secure validity when analyzing either flexibility or adaptability going forward. Wang, Wei (2007) defined flexibility in supply chains as: "Supply chain flexibility is the degree to which a firm meets its end customers' requirements speedily through effective management of the competencies of multiple organizations in the supply chain. Such flexibility permits a firm to respond quickly to changes in its

manufacturing and market environments" This differs from adaptations which concerns; the redesign of production processes, schedules, information systems, product design, etc. to accommodate the requirements of the counter part in the dyad (Mukherji, Francis 2008). Elaborating on the difference: Flexibility seeks to meet costumer's demands and adaptation is concerned with changes or redesigning, of activities within the dyad.

Flexibility and adaption are two very central concepts in supply chain management, especially when looking at the agile architecture of supply chains. In recent years the environment has becomes more volatile Christopher, Holweg (2011) highlights the need for supply chains to become more agile because of the nature of environmental volatility.

Two participants from a focus group interview with an IT-supplier both explained that adaptability was important in their position and that they experienced that buyers often did not adapt to their needs, it was more a case of supplier adaption:

"We always emphasize towards our customers that we can do "anything" and this is to let them know that we are very flexibly" (Anita et. al. 2016)

"Often the buyer is very static and then we often has to adapt to their ways" (Anita et. al. 2016)

The statements indicate that accommodating the buyer's needs by changing the specification of how they serve the buyer is something they often do. The statement reveals skewedness towards suppliers adapting to the buyers needs making it a case of supplier adaptation. The other participant adds to his statement by referring to the buyer as a static actor, indicating that adaptation is very one-sided in their opinion. Another participant elaborates more on a case where they helped two buyers by aligning their EDI systems:

"I was employed in one of the companies who were having trouble with a supplier, the supplier could not deliver the right reference number so I tried (the IT supplier) to align the reference codes because I knew what the buyer wanted duo to my prior experience with them" (Anita et. al. 2016) This is one example of an IT-supplier addressing a costumers need to be agile, or to adapt their internal structure to fit the supply chains structure. IT-suppliers than becomes the means to aligning the buyers supply chain towards their partners. The statement suggests that IT-vendors are obtaining the role of a 3th-party supplier who solves problems for an external dyadic relationship, resulting in data sharing alignment.

The findings clearly indicated that the findings relates to adaptation rather than flexibility. The concept sought to help buyers by aligning processes with supply chain partners and that buyers often sought out suppliers for adaptation.

Sub-drivers found:

- Costumer supply chain alignment
- Data sharing alignment
- Supplier adaptation

4.3.5 Operation efficiency

Revilla, Knoppen (2015) argued that IT influenced efficiency positively and (O'Toole, Donaldson (2002) referred to speed of responds and lead time as factors for *operational relationship effectiveness* – these are things that IT can influence positively. When participants was asked about efficiency he verifies they positive influence IT has on efficiency

Interviewer: so you are actually create operation efficiency for you costumers?

"Yes, absolutely if your business is pressured IT services can bring in efficiency by providing this data" (Frank 2016)

One of the main purposes of IT is to share information more efficiently; this is done by data availability according to the informant. The informant talks about a case where they provided a buyer with better asset utilize methods, by providing the necessary data through information sharing technology:

"Especially in resource heavy companies we actually go into the field of operations and see how they use their machines and how man power is used in each case, our parent company has many capital equipment spread all over different sites all over the world, this creates a need for utilization and monitoring in order to create efficiency, this is essential when competition rises and you need to cut cost..... In terms of business and industries that are driven by huge assets investments, how do you monitor these assets in order to utilize the assets, today we have methods to measure and monitor this through IT solutions, in the past you did not have this and this used to be a big problem for and highly costly" (Frank 2016)

The example indicates that asset utilization is an important aspect for companies with heavy resource investments; IT then becomes a crucial tool towards operation efficiency by providing data visibility. The example also indicate that IT has significantly decreased the cost of asset utilization, thus not only has it become easier to monitor heavy asset investments it has also become cheaper with IT introduction.

Sub-drivers found:

- Data availability
- Asset utilization (tangible asset)
- Cost of operating

4.4 summarizing the value drivers

Examine the interviews resulted in five value drivers dominating buyer value in IT & ITeS dyads. The five value drivers are: Time saving, operational efficiency, Innovation, Adaptation, Supplier knowhow. The list of value drivers with attached sub dimension can be seen in table 5

| Dominating Buyer Value Drivers | | | | | |
|---------------------------------------|----------------------------------|---|--|--|--|
| Value driver | Interview | Sub drivers | | | |
| | source | | | | |
| Time saving | Supplier A | Less physical contact process time latency decrease time-to-market | | | |
| Operational Efficiency | Supplier A | Data availabilityAsset utilization (tangible asset)Cost of operating | | | |
| Innovation | Supplier A | Upgrading and maintaining of IT systems Creation of greenfield projects consisting of new technology and implementation Closer relationships with focus on innovative solutions | | | |
| Adaptation | Supplier B | Costumer supply chain alignment Data sharing alignment Supplier adaptation | | | |
| Supplier know-how | Supplier A Buyer A Buyer B | Knowledge and expertise within IT & ITeS Scouting function Knowledge of fast transition between old and new platforms | | | |

Table 5: Buyers value drivers summarized

Source: own contribution

4.5 Contextual Factors

This section seeks to identify the contextual factors that where found important by experts; it links the participants explanations to theory surrounding the factors. Each concept will be introduced and analyzed

4.5.1 Trust

Morgan, Hunt (1994) defined trust as: "*Trust denotes the confidence of one party in exchange for a partner's reliability and integrity*" Trust is also an antecedent for relationship closeness (Srivastava, Singh 2010) hence it is relates to the industry movement towards co-creation between partners described in section 1.1. Trust is described as a KMV by Morgan, Hunt (1994) two participant's links trust to words as; *essential and foundations* indicating the importance of the concept:

"trust is essential for the relationship and this is especially important if you don't know the brand" (Frank and Shasma 2016)

The quote refers to trust as something to do with Brand value. This indicates that trust functions as a marketing concept containing different value perceptions.

"Trust is one of the foundations of our business, what we promise our customers are also what we must deliver else they lose faith in us" (Anita et. al. 2016)

One participant refers to trust as a matter of integrity between promises of delivery and the later compliance of what was promised. Additionally this indicates that trust is an operational concept that exists between partners, indicating an atmospheric function (not only marketing).

However another participant thinks trust is a very general thing and not something that is unique for the IT & ITeS industry:

"I think trust is very general thing in all industries and if trust is not there, you have to ask yourself; why do we do business with that partner" (Anita et. al. 2016)

Another participant highlights why trust might be more important in the IT & ITeS industry;

"We function as the binding link between the buyers and their partners, this makes trust highly important and this also creates a lot of dependency from the buyer's point of view" (Anita et. al. 2016)

The statement points out that the buying company is placing a lot of dependency upon the IT-vendor. This requires a lot of trust because of the potential breakdown of other relationships within the buyer's network inflicted by the IT services. From these findings we can conclude that trust plays an important role in supporting value creation. Further that IT is a tool that business uses to interact with other business partners, hence increasing the dependency towards IT-suppliers who undertake these processes. With increased dependency the buyer most trust the supplier with more responsibility. The interviews also found a link to integrity and confidence by meeting the promises and delivering on these promises. Lastly Trust was linked to brand value, suggesting the concept function as a marketing tool.

Sub-factors found:

- Integrity and reliability
- Brand value
- Dependence

4.5.2 Communication

Communication is considered a key element of strategic outsourcing (Holcomb, Hitt 2007). Communication is especially relevant for IT vendors because of the shift towards closer relationships and supplier integration, pointed out in section 1, 1. Ambrose et al. (2008) pointed out that there is a big difference in how dyadic relationships pick communication methods (email, face to face, telephone, EDI) and that it is related to the development of the relationship and that there is a significant differentiation between product centric and services centric supplier relations. In product centric relationships the buyer tends to have more control over the communication, but in service centric relations the power shifts more towards the supplier because of services ambiguous nature (Ambrose et al. 2008). They further argue that the ambiguous nature makes for richer forms of communication especially in co-production: "*Co-production of a B2B service impacts on media choice in that there may be considerable ambiguity in initial service deign and greater need for richer forms of communication*" (Ambrose et al. 2008). One of the participants of a focus group interview identified communication as an important factor in the relationship

"Communication is also a thing we look for in our teams because our programmers can sometimes have a hard time with communicating with the buyers" (Frank and Shasma 2016)

Interviewer: "so communication can have a constraining or enhancing effect?"

"Yes, we have seen this in several cases" (Frank and Shasma 2016)

This verifies that communication could work as a constraining factor, affecting the relationship. It also indicates that the supplier is faced with difficulty when communicating with the buyer. The participant further explains that the problem they face with communication is that their programmers often have difficulty translating their work, into words that the buyer understands, and this sometimes results in added costs:

"On the associate front we often see employees that are very good at programming and developing products for the buyer, but they fail at communicating it to the costumer, this creates a communication gap and sometimes results in cost" (Frank and Shasma 2016)

The statements clearly verifies that supplier ability to communicate with the buyer is a problem and that the role of communication can have a constraining effect on the dyad.

Another participant explains that the nature of the service also affects the mode of communication and can have implications when it comes to time saving and decrease the active communication in the dyads. The participant is an EDI professional, which means errors are often related to minor fixes in the data exchange system, hence his statement is not related to co-development project.

"It is important that we don't keep the clients in the dark, and right now this means we have to communicate with our customers often, but we are working on a new platform where they can perform self-service and see what is going on in real time, this means they don't have to call us every time there is something, this makes everything much easier" (Anita et. al. 2016)

The statements indicate that communication can affect the dyad ability to capture value. The interviews also found that self-service is a way of decreasing the communicating with EDI suppliers – indicating that different methods of communicating should be applied to different cases.

Sub-factors found:

- Method of communication relates to nature of the value driver
- Suppliers faced difficulty when communicating with buyers

4.5.3 Absorptive capacity

AC is a relatively new concept in BSR. It was defined as: "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (David J. Teece, Gary Pisano & Amy Shuen 1997) AC is linked to dynamic capabilities that are described as: (1)Specific processes, (2)best practice, (3)market dynamism, (4)path-dependent learning (Sáenz, Revilla & Knoppen 2014). One buyer of IT-services expressed that some of their smaller customers did not have the capabilities to be part of their EDI purchasing systems; this constrained the order handling making the relationship less efficient. The IT-department solved the problem by developed another platform to process orders which doesn't require any investment from their costumer's side (Ron 2016a). This development by the IT-department shows the importance of absorbing information and using it to provide the organization with a competitive solution. The department director of the buying company further emphasis that they seek to integrate IT-vendors in their business so that they understand the requirements they have as a buyer.

"We spent a lot of time explaining our business to the IT-suppliers it is very important for the relationship that they know our business and requirements" (Ron 2016b)

The platform development and statement indicates that suppliers and buyers have to invest in the relationship in-order to capture value. One CEO from an EDI Supplier also confirms the importance of AC:

"Our strength as a supplier is to see the problem of two actors and with our know-how find a solution rather quick; other firms might make a big project out of this especially if they need to do this from scratch" (Anita 2016a)

Interviewer: So one of your capabilities is to absorb a problem and produce a solution?

"Yes we are always trying to solve problems, and most of our programmers are also former employees at our customers so they know the results the costumer is aiming for and we even seek this attribute when we hire new employees" (Anita 2016a)

Interpreting what Anita points out is that the capability of supplier-knowhow is only a part of what's important; the suppliers also need to understand the problems the dyad is facing. The problems they

solve is often related to a dyadic problem that concern two other parties, meaning the IT-supplier rarely is a main actor with the dyad that faces the problem they solve.

Sub-factors found:

- External knowledge of requirements
- External knowledge of dyadic problems
- External knowledge integration and formulation
- Solutions based on internal knowledge

4.5.4 Buyers willingness to accept change

The willingness to accept change is an ability that is linked to co-operative partnerships with suppliers, Langfield-Smith, Greenwood (1998) investigated Toyota and their co-operative partnerships transferability to the western automobile industry and found four factors that supports willingness to accept changes: (1)positive prior experience of change, (2)effective communication and information sharing, (3)experiential learning, (4)Similarities in industry and technology between buyer and supplier.

Both suppliers and buyers in the industry acknowledged that the IT & ITeS industry was of a complex nature because of the high level of customization of different products and rapid changes in the market. One supplier referred to the market as a *"jungle"* and one buyer stated:

"It is a complex topic, IT systems move so fast, so how do you know when to upgrade? IT can do so much, almost anything but it is too complicated to use, take excel as an example, excel can do so much, but if you don't have extensive training in using it you won't be able to utilize the possibilities" (Ron 2016a)

This statement indicates that sourcing in this industry is difficult because the buyer needs to spend extensive time to understand products and market possibilities. This can potentially leave the buyer's organization with a low willingness to accept changes, creating a barrier for new IT-solutions.

Technology and industry similarities are variable impacting the willingness. (Ron 2016a) explained that only 15-20 Percent of their orders where handled through EDI systems, he further expressed that

difference in technology capabilities often inhibited the possibility to use EDI and that their suppliers and customers often priorities IT systems lower than other projects. The low priority often resulted in very long transition processes where everything from 6 months to 3 years was commonly seen in, implementing and aligning EDI order handling.

"Our suppliers and buyers need to have the capable IT infrastructure to use EDI orderings, at this point we can't invest in sophisticated IT systems because we will get to far ahead of our partners" (Ron 2016a)

According to buyer the lack of common technology is constraining the possibility for value capturing. One EDI-supplier discharged the technology problem and explained that it's not about technology it's about the similarities in EDI standards:

"Technology plays a difference between some costumers, but our setup provides a solution that ignores the technology capability of the costumer, the market is complex so I can understand why buyers find it hard to find the right supplier and thinks it's a technology problem" (Anita 2016b)

Interviewer: "So you don't think technology is a big problem in this industry?"

"No not in the case of EDI" (Anita 2016b)

The participant clearly states that the difference in technology is not a problem in the EDI markets; it's a matter of finding the right solutions and IT-vendors. She further outlines how they as EDI provider have all the technology requirements servers, software programs etc. These findings indicate a misalignment in the perception of what the problem is, moreover indicates that the difference in industry and technology to some extend contrariness value capturing.

Prior experience and effective communication was also found to impacting the willingness. One supplier explained that almost all of their customers have negative prior experience when it comes to adopting new IT-systems (Anita 2016b). The supplier further elaborated on this and pointed out that effective communication is highly important to solve this:

"I'm very sure that the main problem is the communication between us(supplier) and the buyer, often the director would introduce us to their In-house IT guys and then leave it there, but it's really important that the people using the new systems also gets involved, accounting, sales etc. If this person are not informed and knows exactly who and when to call us for help frustration is created and then we have this negative attitude" (Anita 2016b)

The statement points out that involving all the people who is affected by the changing systems is an important part of effective communication and that is a key to solving and preventing the negative attitude.

The same participant (Anita 2016b) offers other perspectives on why the process of delivering new ITsystems is constrained: the size of the buyer is a factor (1), resources put into the relationships (2), commitment from both parties (3) and the lack of knowledge of the supplier market (4). These four factors often results in IT being placed low on the priority list of the buyer, thus inhibiting further value capturing in the relationship with the IT & ITeS supplier.

She further explains that the in-house IT-department is a crucial gate-keeper for suppliers and having an optimal relationship between the supplier and in-house department has significant impact on the time it takes to adopt new systems (Anita 2016b)

Sub-factors found:

- Similarities in industry and technology
- Prior experience with changing IT systems
- Effective communication channels between the supplier and the individual involving the new systems.
- Resources and commitment towards the new system from both parties
- Buyer's size and knowledge of IT markets and products.

4.6 Summarizing the contextual factors

Examining the interviews resulted in four dominating contextual factors. The four factors consist of: Trust, Communication, Willingness to change and absorptive capacity. The four concepts can be seen in table 6, with attached sub-dimensions.

| Dominating Contextual factors | | | |
|--|--------------------------|---|--|
| Contextual factors | Interview | Sub factors | |
| | source | | |
| AC | Buyer B Supplier B | External knowledge of requirements External knowledge of dyadic problems External knowledge integration and formulation Solutions based on internal knowledge | |
| Communication | Supplier A Supplier B | Method of communication relates to nature of the value driver Suppliers faced difficulty when communicating with buyers | |
| Trust | Supplier A Supplier B | Integrity and reliabilityBrand valueDependence | |
| Buyers Willingness to accept change | Supplier B Buyer B | Similarities in industry and technology Prior experience with changing IT systems Effective communication channels between the supplier and the individual involving the new systems. Resources and commitment towards the new system from both parties Buyers size (people involved) and knowledge of IT markets and products. | |

Table 6: Dyadic contextual factors

Source: own contribution

4.7 Calibrated frame-work of IT & ITeS sourcing arrangements

The analyses of the empirical data resulted in a calibrated framework capturing the opinions and arguments of the experts interviewed and tested via card-sort. The framework is an adjusted version of the conceptualized frame-work in section 3.4. The framework should be perceived as specific to IT & ITeS sourcing arrangements, highlighting buyer value and the contextual surroundings that influence the dyads ability to capture value. The calibrated framework underlines what the relevant contextual factors and drivers of buyer value are helping the thesis to answer the proposed research question.

The framework doesn't provide any evidence of the two labels: *Parties* and *environment*, arguing that these two parts of the dyadic interaction is playing a less significant role relative to the atmosphere and interaction process. The thesis will discuss the casual relations between the findings presented in figure 9 in the next sections.

| | <u>Buyers' Value drivers</u> (Relationship benefit) | | |
|-----------------------------------|---|----------------------|---------------------------------------|
| <u>Involved</u> <u>Parties</u> | <u>Atmosphere</u> \longrightarrow | Interaction process | Operation efficiency |
| No significant evidence | <u>Trust</u> | Absorptive capacity | <u>Time savings</u> |
| <u>Environment</u> | Willingness to change | <u>Communication</u> | <u>Innovation</u> Supplier-Knowhow |
| No significant evidence | | | <u>Adaptation</u> |

Figure 9: calibrated frame-work of IT & ITeS sourcing arrangements

Source: own contribution

5 Discussing the findings

This section strives to discuss how the findings exist in the real world, e.g. as part of the industry and problems faced by the buyers and suppliers. The section also discusses the causal elements of the findings seeking to create an understanding of how they can be utilized to optimize the dyads value capturing.

5.1 Towards an understanding of complexity in the market

After conducting the empirical investigation it became clear that most IT project often involved more than two actors within the interaction of exchange. IT-vendors were frequently put as a 3th party requested to solve a problem existing within an external dyad. This is often the situation when the ITvendor obtains the role of a consultant or involvement in any up/down stream IT activities. The structure is illustrated in figure 10, showing the IT-vendor, as a supplier, is being positioned outside the actual dyad facing the problem versus a standard dyad.



Source: Own contribution

This structure introduces the discussion of how we perceive episode complexity between the dyads in this industry. Episode complexity might increase if the dyadic structure is changed as illustrated in figure 10. Arguing that most IT project involve the IT-vendor positioned as a 3th party supplier suggest that episode complexity remains high in many cases of interaction. This also suggests that episode complexity is related to how many actors are involved, were over two actors is considered complex. This adds to the notion of episode complexity being connected to episodes that are hard to identify and

specify (Håkansson 1982). The episode complexity is relevant when discussing the optimizing role of the interaction process of the dyad, which consists of Communication and AC (see figure 9)

<u>Communication</u> is a description of different modes of transporting information in the dyad, thus it is an essential part of the interaction process. Communication methods might vary depending on the relationships stage and nature of the episodes. With simple episodes the mode of communication required becomes simpler, but when episodes become complex requirements for sophisticated communication methods arise (Ambrose et al. 2008). Acquiring sophisticated communication methods - which are needed to handle complex episodes, becomes harder when the relationships stage is limited, but becomes more assessable when the relationship is extensive.

To sum up communications role in the interaction process:

- Communication is the transferring of information within the dyad' interaction process
- Communication methods change when episode complexity change
- Relationship development enable the choose of communication method

AC moves across borders of both companies; hence, it is naturally related to the interaction processes, because it connects internal and external knowledge. Depending on the relationship development and episode nature, AC might obtain different importance. For instance: AC might require more effort when *episodes* get complex, because of increased ambiguity in the episodes and vice versa when *episodes* are simple. AC might not exist when the relationship development is *limited*, because of the immature stage of the dyad, but one could argue that the *extensive* relationship enables AC. Another perspective is that AC should be less important in scenarios with low episode complexity, but more important in scenarios with high episode complexity.

To sum up AC role in the interaction process:

- Absorptive capacity takes place in the interaction process of the network
- Absorptive capacity is essential in solving complex episodes
- Absorptive capacity might only exist in extensive relationship

5.2 Towards an understanding of how the dyad is influenced

After going over the findings it became clear that the majority of IT projects consist of exchange and implementation of innovative processes, products, systems etc. This constantly put the buyer's organization into a role that forces them to accept change in one way or the other. The role of changes was found to be a major constraining factor, affecting the dyads value creation negatively. This opens up for the discussion of what causes the dyad to be constrained.

5.2.1 The constraining factors of the relationships

IT is described as a rapid changing market, advocating that to operate in the market one requires a certain expertise and specialized knowledge of the market (Holzweber et al. 2012). This knowledge is something very few actors within the buyers firm retains creating a gap between the supplier market and the buyer's awareness and understanding of how IT markets functions and change. The gap creates asymmetry in information between the two dyadic actors resulting in the buyer perceiving investments in the relationship as risky. The risk is two folded; first there exist a fuzzy picture of what value the buyer can obtain from investing in the dyad, secondly the buyer is uncertain of the direction IT technologies are stirring, searching for when to invest to avoid innovative disruption from emerging IT.

The gap in information results in uncertainty, creating a barrier influencing the dyad negatively, thus leading to buyers being less willing to invest in IT sourcing arrangements. One way of mitigating this could be if the buyer identified the supplier as a scouting spouse, this is what literature refers to as a support function of BSR(Walter, Ritter & Gemüden 2001)

5.2.1.1 Managing constant changing projects

The nature of IT projects was found to be extremely adjustable and changing buyer's specifications and supplier's prices was often the case in the project. This has often caused frustration and difficulties within expectation formulation between the dyad actors. The dynamic phase of IT projects should also be aligned with a dynamic approach to expectations; if the expected outcome is fixed misunderstandings will arise and lead to dissatisfaction and accumulating more of the negative prior experiences found in the empirical investigation. The adjustable expectations is also related to trust; if there exist less trust within the dyad, managing these constant changing projects becomes difficult.

Trust is related to commitment Morgan, Hunt (1994) advocating that the dyad has to achieve a level of maturity in order to successfully eliminate the negative influence of dynamism within the dyad.

5.2.1.2 Industry and technology difference between partners

IT-vendors are serving numerous of different industries and buyers are doing business with numerous of different partners and industries. The construction of dyadic relationships is often a lot more complex, than standard two folded dyad consisting of a buyer and supplier. The services that IT-vendors provide often has to move beyond the buyers boarder, engaging the buyers business partners e.g. with information sharing IT or EDI communication. This construction advocates that buyers are depending on their business partners when investing in IT. In today's supply chain architecture business partners seek to create synergies by aligning business functions, meaning that buyers are less willing to invest in IT if their business partners or competitors doesn't. This has resulted in industries advancing differently, e.g. the financial sector and insurance industry are highly advanced but evidence from the interviews in this thesis displays that manufacturing in construction means that buyers are depending on business partners and their industry and that these factors influence the willingness to invest in IT.

Overcoming this deceased willingness in the dyad is very much a matter of communicating effectively (Langfield-Smith, Greenwood 1998). Communication is pivotal towards solving the information asymmetric situation and to manage the constantly changing projects. This suggests that effective communication influences the atmosphere, by being an antecedent to increased willingness to accept changes and trust.

The main function of the atmosphere is to strengthening the relationship, thus playing a role in the development of the relationship, e.g. extensive or limited. Trust and Willingness should be viewed as pivotal concepts towards building extensive relationships. An extensive relationship will enhance the interaction process, influencing the dyads value creation positively. This suggests that there is a causal relationship between the Willingness to accept change, communication, trust and the development of extensive or limited relationships. The causality means that all the concepts are interrelated signifying complexity.

Summarize: The dyad is constrained by decreased willingness to undergo changes by the buying firm. The things leading to this is information asymmetric, leading to uncertainty and misaligned expectations which variates. The willingness was furthermore connected to the supply chain partners of the buyer and their development of IT also. Ways to mitigate this were argued to be effective communication and using IT-vendors as scouting spouses to translate the complexity in the IT market.

5.3 Towards an understanding of Value in the industry

As discussed in section 5.1 the episode exchange in the market is often of a complex nature. This is also reflected in the found drivers of buyer value in the industry. Drivers such as Adaptation, innovation and supplier knowhow was frequently discussed and represented in card-sorting. These drivers resemble that buyers often source complex services and use IT-vendors knowledge to adapt and innovate their own processes both internal and external.

However the two drivers; time saving and Operational efficiency don't fit the context of complexity, suggesting that these two drives fit a simpler context. The idea that IT provides an organization with operation excellence (e.g. Time savings and efficiency) is nothing new, for instance this has been described as the general purpose of IT (Basu, Fernald 2007). Nonetheless this suggests that buyers also source for services that create value through efficiency rather than innovation and adaptation.

In supply chain theory the choice of strategy depends on the nature of the product you sell (Fisher 1997). The same typology can be used in the context of buyer value in IT. If the nature of the service buyers are sourcing is basic, contains less episode complexity and is simple to identify and specify it should follow a lean design. If the nature of the service is uncertain, and hard to specify it contains complex episode exchange leading to an agile design.

5.3.1 Characterizing buyer value as lean and agile

This section strives to characterize buyer value drivers, suggesting there is a relation between the drivers found in the findings. By characterizing buyer value we might get closer to understanding how value is optimized by the dyadic interaction, especially avoiding value being constrained by the contextual factors. The inspiration for the two labels comes from supply chain theory which uses the two concepts of leanness and agility (Mason-Jones, Naylor & Towill 2000). The two concepts are described as paradigms within supply chain, and were used to determine what supply chain strategy

was appropriate in relation to the market situation of the company. Lean and agile are defined by Mason-Jones, Naylor & Towill (2000):

Leanness: means developing a value stream to eliminate all waste, including time and to ensure a level schedule

Agility: means using market knowledge and a virtual corporation to exploit profitable opportunities in a volatile marketplace

Within supply chain theory agile supply chain capabilities needs to be built on lean foundations to excel the competitive advantage (Christopher 2000). This indicates that the separation of Lean and Agile is a simplified view, hence, the two strategies are entangled and epically agile strategies require some lean initiatives to enable the benefits. For instance effective information sharing is essential to JIT-production, which are characterized as lean initiative and a prerequisite for agility. The combinations of the two concepts are also referred to as "leaglie" (Mason-Jones, Naylor & Towill 2000).

5.3.2 The lean value drivers

The nature of these drivers can be described as basic, easy to identify and concerned with only two dyadic partners. For instance deploying an ERP system is a basic software implementation, which can be calibrated from other cases/companies and only concerns a single organization. The ERP systems provide the buyer with; time saving and operation efficiency which draws similarities towards the theories surrounding lean thinking in organizations. Lean theory concerns itself with: Circling *time*, value creating *time* and flow *time* (John 2009), hence, lean thinking is concerned with time saving but lean is also related to elimination of waste, leading towards operation efficiency. This implies that the two value driver: Operation efficiency and Time saving can be characterized as lean value drivers.

- Operation efficiency
- Time saving

5.3.3 The agile value drivers

The nature of these drivers can be described as uncertain, hard to specify and containing more than two dyadic partners. For instance developing an ERP system that also integrates other supply chain

partner's data, would require an advance approach to identification of what data to share, furthermore different kinds innovation and adaptation would be needed to change and develop technology and processes between partners.

Agility concerns knowledge integration and responsiveness. Key attributes to an agile organization is its ability to adapt to new knowledge and new technology, hence, adaptation, innovation and knowhow are key drivers of agility.

- Adaptation
- Innovation
- Supplier know-how

5.3.4 Scenarios of buyer value

The previous sections outline how buyer value can be characterized and how the contextual factors influence the value creation in the dyad. This section will outline how the contextual factors and value drivers are related, moreover how the contextual sacrifices of the dyad changes as the relationship seeks to optimize buyer value.

Mason-Jones, Naylor and Towill (2000) used three case studies to outline how agile, lean and leagile was applied to supply chains: This section will use the same approach by using two scenarios of lean and agile. The two scenarios are described as: (1) a dyadic relationship seeking to produces agile buyer value and. (2) A dyadic relationship seeking to produce lean buyer value.

5.3.5 The agile value capturing dyadic: scenario 1

Scenario one exemplifies the situation where a buyer is sourcing for agile value drivers (see section 5.3.3). The services that are being sourced are connected to adaption, innovation or supplier-knowhow and as a result of these drivers of buyer value episode exchange is considered complex and consisting of more than two actors within the dyad (see section 5.1).

The value driving this scenario advocates that episode exchange will be complex, thus requires an extensive relationship between the partners. An extensive relationship would enable a strong interaction process, enhancing AC and communication, between the dyadic partners. This would resolve the difficulty existing in the identification and specifications of the episodes, decreasing

complexity. The favorable extensive relationship requires a strong atmosphere within the dyad, which would entail a high investment in trust and willingness to accept changes. A more practical example could be; that a buyer needs to trust supplier more, if they are to uncover their business process and problems for the supplier, this exchange of process and problems relates to the interaction process (AC and Communication).

The scenario showed that when episode complexity goes up there is a stronger need to invest in a strong atmosphere, which enhances the capabilities of the interaction process, mitigating the complex episode exchange. The scenario is illustrated in the following frame-work adjusted from the calibrated framework in section 4.5: scenario one applies that agility scenarios requires high sacrifices from both parts of the dyad if value capturing are to be optimized.



Figure 11: The agile value capturing dyadic: scenario 1

Source: own source

5.3.6 The lean value capturing dyadic: scenario 2

Scenario two is exemplifying lean buyer value (see section 5.3.2). The scenario is related to time saving and operation efficiency resulting in a simple episode exchange context, with only two actors within the dyad (see section 5.1).
Operation efficiency and time saving are mainly linked to already exiting processes within the buyer's organization – it is merely a redefinition of these exiting processes that these services provide. This makes the identification and specification of episodes less difficult to comprehend. For instance acquiring an ERP system from an IT-vendor can be in most instances highly standardized, leading to only little adjustment and information required to fit specifications. This makes the episodes of interaction relatively simple to the agile scenario.

As a result, of episode complexity decreasing and extensive relationships diminishing the relationship will be lead to more of an arm's length relation. In this scenario AC than becomes less significant, because the dyad is simple (only two actors) and the nature of the services less complex. Additionally the atmosphere will become less important, as the relationship stays in a limited stated. However the willingness to accept changes is still a decisive factor in the dyad, because it is not related to episode complexity it is only related to the changes of processes (section 5.2.1.). This suggests that the willingness to accept change is a fixed factor that constrains the dyads across different buyer value scenarios. This inevitably makes communication important too in this scenario, because of the casual relationship between communication and willingness to accept change (see section 5.2.1).

The discussions outline the scenario of a dyadic relationship experiencing simple episode exchange, in the process of obtaining leanness through their BSR with an IT-vendor. The scenario is illustrated in the following frame-work, adjusted from the calibrated framework in section 4.5: Scenario two advocates that willingness to accept change and communication are connected and very central obstacles existing in the industry, resulting in high investments in these two concepts from both parts of the dyad see (figure 12).

| Dyadic Contextual factors (Relationship sacrifice) | | Buyers' Value drivers (Relationship benefit) |
|--|--|---|
| <u>Atmosphere</u> | Interaction process | <u>Agile value drivers</u> |
| \rightarrow | \rightarrow | |
| <u>Trust</u> (Low investment) | <u>Absorptive capacity</u> (Low investment) | Operation efficiency |
| <u>Willingness to accept change</u> (High investment) | Communication (High investment) | <u>Time saving</u> |

Figure 12: The lean value capturing dyadic scenario 2

Source: Own contribution

5.4 Summary of the value scenarios

This section provides the answer for SQ3 by outlining how the concepts are applied to different value scenarios, to create optimal value creation.

The section started out by characterizing buyer value as lean or agile. Lean buyer value is exemplified in scenario two were the dyad is faced with simple episode exchange, as a result of the drivers of value being; Operation efficiency and time saving. Furthermore the dyad is described as standard with only two parties. Agile buyer value is exemplified in scenario one, were the dyad faces complex episode exchange, as a result of the drivers of value being; adaptation, innovation and supplier-knowhow. The dyad is described as an external dyad with more than two parties.

The two scenarios illustrate that there is a connection between the two contextual factors; Willingness to accept changes, communication and all of the five value drivers. This is seen by the dyadic sacrifice being high in both scenarios of these contextual factors. Looking at trust and AC, the scenarios indicate that they become pivotal in complex scenarios, where buyer value is fixed on agility rather than lean. This analogy does not state that trust and AC doesn't matter in lean value scenarios, however it states that they becomes less pivotal for the dyad relative to agile scenarios.

The two scenarios also suggest that buyer value (agile or lean) changes the contextual sacrifices the dyadic relationship has to undergo, suggesting there is a causal effect between buyer value and contextual factors optimizing the relationship.

6 Conclusion

The thesis found 52 concepts used in literature to describe value driving activities. The entire list of concepts can be seen in figure 8 and with references in appendix A. The 52 concepts were exposed to empirical investigations resulting in four contextual factors influencing value creation and five drivers of buyer value. The found concepts resemble what empirical experts found relevant in the IT & ITeS industry, thus a product of an interpretivist research approach.

The first part of the research question is centered on *what: drives buyer value and how is it characterized*.

In the literature review (section 3.1) value drivers in BSR were found to be a combination of factors and concepts that drive performance of the relationship. The value drivers identified by buyers within BSR in IT & ITeS sourcing arrangements were:

- 1. Innovation,
- 2. Supplier-knowhow,
- 3. Operational efficiency,
- 4. Time saving,
- 5. Adaptation,

However, after discussing and reviewing the value drivers, it was clear that the drivers were related to the two characterizations used in supply chain theory as; agile and lean. The thesis concludes that buyer value can be characterized as either related to the IT-supplier solving a complex scenario, leading to agile value outcomes, or IT-suppliers solving a simple scenario leading to lean value outcomes. This conclusion emphasizes that IT-projects are either simple or complex. As a result, the buyer needs to perceive the sourcing arrangements within the dyadic relationship differently to optimize different outcomes of buyer value.

The second part of the research questions centers on: how buyer value can be optimized through the contextual factors in dyad.

In the literature review (section 3.1) Contextual factors were found to; enhance or constrain, enable or inhibit the value drivers. The four contextual factors that interviewed experts within BSR in IT & ITeS sourcing arrangements found relevant were:

- 1. Trust,
- 2. Willingness to accept change,
- 3. Communication,
- 4. Absorptive capacity

AC and Trust were found to enhance value creation within dyads in complex scenarios. Complex scenarios are considered projects that consist of more than two actors and specifications that are difficult to identify, and specify. The two concepts were found to have a reduced impact on simple episode exchange scenarios, being scenarios with no more than two dyad actors and episodes that are simple to identify and specify.

Willingness to accept change was found to constrain the dyads where the buyer was exposed to changes in their organization. This means that the factor constrains both scenarios with simple and complex episode exchange. This is given because IT & ITeS sourcing arrangements mostly consist of IT projects providing changes to the buyer's organization. Communication was found to be an antecedent to enhancing willingness to accept change, advocating its application to the same scenarios.

The thesis applied the two scenarios of complex and simple episode exchange. The two scenarios exemplify what sacrifices the dyad has to undergo to create buyer value.

Table 7 connects the research question by illustrating; how value is characterized, what drives it and how it is influenced, in two different dyadic cases of buyer value:

| Value Characterized | Buyer Value Drivers | Factors Optimizing Buyer Value |
|-------------------------|----------------------------|---------------------------------------|
| (relationship scenario) | (relationship benefits) | (relationship sacrifices) |
| <u>Agile</u> | Innovation | Trust |
| Scenario 1: Complex | Supplier-Knowhow | Absorptive capacity |
| episode exchange | Adaptation | Willingness to accept change |
| | | Communication |
| <u>Lean</u> | Operational efficiency | Willingness to accept change |
| Scenario 2: Simple | Time saving | Communication |
| episode exchange | | |

Table 7: Applied value and sacrifices

Source: own contribution

The thesis concludes that investing in the contextual surroundings of the relationship such as improving; Trust, Communication, AC and Willingness to accept changes are vital towards creating successful value exchange. Furthermore, the thesis concludes that buyer value is related to lean and agile outcomes, where different sacrifices (investments) are necessary. For instance; agile value outcomes requires an extensive relationship if value creation is to be successful, advocating investments in all four contextual factors. Lean value outcomes require a simple relationship, advocating investments in Willingness to accept change and communication.

Additionally, the main obstacle dyadic relationships are facing, is a decreased willingness to invest and engage in IT changes, coming from the buyer organization. The decreased willingness to invest was the result of the buyer's incapability to understand IT and IT market changes. Implicating buyers should use IT-vendors knowledge as a scouting function, encouraging a closer relationship between the two. The willingness was also affected by negative prior experiences created by the supplier's incapability of meeting customer expectations. This observation is pivotal for suppliers and buyers because it relates to the dynamics existing in an IT project and the managing of it.

7 Implications

This section extends the concluded section by outlining the implications for further research, academia and implications of research design used upon generalizability and the findings.

7.1 Assessing generalizability

The sample provides a complete perspective of both the supplier and buyer within the dyadic relationship of IT sourcing arrangements. The sample of cases provides a diverse composition of case companies on both sides of the dyad. The diversity is realized in: company size, company regions, company industries, and supplier expertise (IT and enabled IT) for a better overview of case companies see section 2.3.3 and table 1. On the bases of this diversity the sample provides a solid foundation for generalizing. This is additional strengthened with a triangular method design creating cross validated findings which is especially important in deductive analytical procedures, that uses multiple case studies (Yin 2009). If findings are cross validated and matching the expected outcomes proposed in the deductive framework, the study has a strong claim, if this claim is further facilitated in similar cases, the findings provide a generalizable result (Yin 2009). The card-sorting results turned out to place all concepts as predicted in the conceptualized framework, furthermore the interviews found similar meanings across a span of concepts and participants.

It is important to acknowledge that the phenomenon of generalizability stretches to the IT & ITeS industry. However the industry is also considered a service centric industry, suggesting that the findings might also be applicable to service based sourcing arrangements. One might argue that the context surrounding the dyad of other service providers might be the same, because of shared characteristics in terms of ambiguity and complexity of value perceptions when dealing with intangible products. On the other hand, the value drivers should differ across service industries because of buyers sourcing for different supplier knowhow and products. Nonetheless proving of generalizability within the service sector would require an expansion of the case sample.

Finally the findings can be said to have a strong claim to generalizing on an international level. The sample involved two global companies however participants where connected to Scandinavian and UK markets but withhold backgrounds in markets such as USA and India.

7.2 Academic implications

This study presents five drivers of buyer value where two of them had previously been identified as value dimensions within Manufacturing; hence Ulaga (2003) found time-to-market and supplier know-how to be important value dimensions and this study also found these to figurate in the IT & ITeS

markets. However this thesis also established that Innovation, Operation efficiency, and Adaptation as three equally important value drivers and these could be classified as specific for the buyers of the industry. This build for the arguments that physical products and service sourcing arrangements has different drivers of value thus different approaches towards value capturing should be applied to service dyads than product dyads.

The thesis also identified communication as an important contextual factor. Communication was classified as a value dimension by Ulaga (2003) however the findings in this thesis suggests that communication is a contextual factor, influencing the dyads value creation capability, hence <u>not a value dimension</u>. For instance two actors can invest a lot in communication methods and processes but there will never be produced any concrete value from the relationship unless it is supporting a value driver such as innovation or adaptation. The arguments for positioning communication as a value dimension can be related to the ambiguity of value perceptions that exists. However this thesis argues that buyers are not entering sourcing arrangements in order to acquire communication, thus it cannot be a value driver, but rather something that influences the value outcomes.

The thesis categories IT markets as dynamic and rapid changing, the findings validate this by revealing concepts as AC and adaptation as important. These concepts was used in different contexts by a numerus of authors (David J. Teece, Gary Pisano & Amy Shuen 1997, Sáenz, Revilla & Knoppen 2014, Holzweber et al. 2012). This thesis validates AC importance within IT scenarios by using the concepts in dyadic BSR context, between IT vendors and buyers from other industries.

The thesis suggest that the concepts of: *Willingness to accept changes* also links to company size and stakeholder involvement, hence not only the four concepts put forth by Langfield-Smith, Greenwood (1998).

7.3 Further research

Given the findings in this thesis and the challenges the BSR in IT-ITeS industry faces testing for misalignment between suppliers and buyers is a highly relevant aspect of further research in this area. The testing should seek to gather case companies from both perspectives of the dyad, this thesis suggest that using the concepts found in this thesis in a redesigned card-sorting exercise to be used on a multiple case study within the industry could disclose any misalignment disrupting the dyads. The

modified card-sort should use a closed card-sort method, focusing on a more narrow number of cards and fixed categories, this changes the outcome of the method from an exploratory assessment towards testing and validating.

Another relevant question this project raises is how are dyads structured in IT projects? This thesis uses a simple dyad structure consisting of two institutions; however participants indicated that IT relationships often involved more than two numbers of actors with different interests, perceptions and expectations. The research should address if the projects uses a *One with many* or *SRM* perhaps other structures of dyadic relationships (Kenny, Kashy & Cook 2006). Uncovering the structure could lead to a deeper understanding of what complexity exist within the industry and what role the contextual factors play in a more complex dyad setting. Lastly it could validate the connection between the agile value drivers and extensive/mature relationships vice versa lean relationship.

A third look at future research would be the gathering of specific case examples validating the different value drivers. It would be highly relevant to obtain concrete case examples concerning; Innovation, adaptation, Supplier know-how, operational efficiency and time saving. Forming a sample of not only qualitative data but also quantitative could build for a better understanding of how value differ between the value drivers.

8 Limitations

This section assesses one critical area in the project, by asking; what biases is there for concept analyses and the data collection - Does it play a role in why the two categories environmental and involved parties play an insignificant role in this study?

When using card-sorting methods participants will be biased towards concepts they already know and use in their day-to-day business. Furthermore the method restricts the research design to use simple concepts that might decrease construct validity, because they are too broad, or basic, failing to obtaining the specific meaning of the phenomena. This advocates that card-sorting is a bad method for exploration and the creation of new knowledge. If we consider the two concepts from this study: Trust and AC, they were represented nine versus three times in the card-sorting exercise (see table 4). If this thesis had only used this method of research, AC would not have been identified as relevant because of

the low representation in the exercise. This exemplifies the strength of the triangular mix of methods used. However it also points towards trust being a more basic term used in all relationships where AC is a more complex term making it more specific but also less understandable, this is an example of how there exist a gap between academic language and spoken language, which interferes with data collection (Kvale 2004).

Another possible flaw of the thesis is that it was not capable of finding any concepts related to the environment and involved actors of the dyadic (see figure 8). The conclusion of this can be the result of three outcomes; either two categories are not relevant in the context of IT & ITeS, or the research design used has not been sufficient in capturing the context of the dyad surrounding these two categories. Lastly the flaw could be related to the descriptive analyses, of interpreting interviews and card-sorting's conducted by the research alone. If we consider the concept of willingness to accept change it can be argued that the concepts could be outlined so the sub-factors might be placed in the two categories of involved parties and environment. For instance industry similarities (as part of willingness) could be placed as an environmental concept. This example suggests that the findings could have been structured in another way, potentially providing another understanding of them. This is however part of interpretivist research where the researcher is part of the produced results, as outlined in section 2.1.

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Ron 2016b, *Case Buyer B: Interview 2*, Hans Christoffer WInther Olsen, Copenhagen Business School.

10 Appendix

Appendix A: table of concepts with references

| <u>Constru_cts</u> | refs |
|-----------------------------|---|
| Trust | (Sternquist, Chen, and Huang 2003, 34-37; Revilla and Knoppen 2015, 1408-1436; Howden and Pressey 2008, 789-812; Piscopo 2007, 190-197; Cui and Coenen 2016, 43-68) (WAGNER, COLEY, and LINDEMANN 2011, 29-48; Stuart, Verville, and Taskin 2012, 392-412; Squire, Cousins, and Brown 2009, 461-477; SHAHZAD et al. 2015, 35-59; Gullett et al. 2009, 329-341; Grudinschi, Sintonen, and Hallikas 2014, 82-91; Prior 2012, 100-114; Nyaga, Whipple, and Lynch 2010, 101-114; CANIËLS, GELDERMAN, and ULIJN 2010, 107-137; Mukherji and Francis 2008, 154-161; Liu 2012, 311-327; Wang and Wei 2007, 647-674; Srivastava and Singh 2010, 3-17; Sánchez, Vijande, and Gutiérrez 2010, 62-94; Coomans 2005, 30- 47) |
| satisfaction | (Sternquist, Chen, and Huang 2003, 34-37; Chin-Chun Hsu et al. 2008, 296-310; O'Toole and Donaldson 2002, 197; Valanciene and Jegeleviciute 2012, 851-862; Sullivan and Aurand 2011, 46-53; Ruiz-Molina, Gil-Saura, and Moliner-Velázquez 2015, 1-15; Cui and Coenen 2016, 43- 68) (Tangpong, Hung, and Ro 2010, 398-414; Prior 2012, 100-114; Nyaga, Whipple, and Lynch 2010, 101-114; CAI and YANG 2008, 55-70) |
| Long term orientation | (Sternquist, Chen, and Huang 2003, Piscopo 2007, 190- 197 (WAGNER, COLEY, and LINDEMANN 2011, 29- 48; Squire, Cousins, and Brown 2009, 461-477; Griffith and Zhao 2015, 22-40; Paulraj, Lado, and Chen 2008, 45- 64; Srivastava and Singh 2010, 3-17; Chang and Gotcher 2007, 477-488) |
| guanxi | (Sternquist, Chen, and Huang 2003, |
| strategic supply management | Revilla and Knoppen 2015, 1408-1436 (Humphreys, Williams, and Goebel 2008, 323-350) |

| supplier control | (Crosno, Dahlstrom, and Manolis 2015, 688-699; Piscopo 2007, 190-197) (Skilton 2014, 74-93) |
|-------------------------------|---|
| buyer support | (Crosno, Dahlstrom, and Manolis 2015, 688-699;; Piscopo 2007, 190-197) (Inemek and Matthyssens 2013, 580-594; Humphreys, Williams, and Goebel 2008, 323-350), (Skilton 2014, 74-93) |
| information sharing | (Chin-Chun Hsu et al. 2008, 296-310; Wang and Wei 2007, 647-674) (Langfield-Smith and Greenwood 1998, 331-353; Kumar 2004, 75-83; Prior 2012, 100-114; Paulraj, Lado, and Chen 2008, 45-64; Nyaga, Whipple, and Lynch 2010, 101-114; Caglio and Ditillo 2012, 61-78; Ambrose et al. 2008, 360-379; Žabkar and Arslanagić- Kalajdžić 2014, 42-52; Wang and Wei 2007, 647-674; Walter and Ritter 2004, 45; Kauffman, Li, and van Heck 2010, 113-144; Srivastava and Singh 2010, 3-17) |
| culture | (CAI and YANG 2008, 55-70; Liu 2012, 311- 327)(Hummel et al. 2010, 51-54) |
| market char. | (Obloj and Zemsky 2014, 1-40; Valanciene and Jegeleviciute 2012, 851-862) |
| uncertainty/relationship risk | (Obloj and Zemsky 2014, 1-40)(Grudinschi, Sintonen, and Hallikas 2014, 82-91; Griffith and Zhao 2015, 22-40; Liu 2012, 311-327; Srivastava and Singh 2010, 3-17) |
| Technology | (Lin and Tang 2009, 679-689; Valanciene and Jegeleviciute 2012, 851-862; Chou 2014, 5041-5054) (Wang and Wei 2007, 647-674; Walter and Ritter 2004, 45; Kauffman, Li, and van Heck 2010, 113-144; Srivastava and Singh 2010, 3-17) (Hultán 2012, 781, 787) |
| Muddling | (Hullen 2012, 781-787) |
| mutual commitment | (Piscopo 2007, 190-197) (Prior 2012, 100-114; Nyaga, Whipple, and Lynch 2010, 101-114; Caglio and Ditillo 2012, 61-78; Mukherji and Francis 2008, 154-161; Lambert and Enz 2012, 1588-1625; Srivastava and Singh 2010, 3-17; Sánchez, Vijande, and Gutiérrez 2010, 62-94) (Anker et al. 2015, 532-560) |
| customer interface difficulty | (Palmatier 2008, 76-89) |
| service content | (Palmatier 2008, 76-89) |
| social capital | (Whipple, Wiedmer, and Boyer 2015, 3-21; Chang and Gotcher 2007, 477-488) |
| dependency | (WAGNER, COLEY, and LINDEMANN 2011, 29-48; Kähkönen, Lintukangas, and Hallikas 2015, 151-162; Tangpong and Young 2009, 58-79; Tangpong, Hung, and Ro 2010, 398-414; CANIËLS, GELDERMAN, and ULIJN 2010, 107-137; CAI and YANG 2008, 55-70; Caglio and Ditillo 2012, 61-78; Mukherji and Francis 2008, 154-161) (Skilton 2014, 74-93) |

| fairness/justification | (WAGNER, COLEY, and LINDEMANN 2011, 29-48; Gullett et al. 2009, 329-341; Bendixen and Abratt 2007, 69-82; Coomans 2005, 30-47) |
|------------------------------|---|
| prior exp | (Langfield-Smith and Greenwood 1998, 331-353; Squire, Cousins, and Brown 2009, 461-477) |
| industry similarities | (Langfield-Smith and Greenwood 1998, 331-353; |
| willingness to accept change | (Langfield-Smith and Greenwood 1998, 331-353; |
| opportunism | (Tangpong and Young 2009, 58-79; Tangpong, Hung, and Ro 2010, 398-414) |
| relational norms | (Tangpong and Young 2009, 58-79; Tangpong, Hung, and Ro 2010, 398-414; Paulraj, Lado, and Chen 2008, 45-64; CAI and YANG 2008, 55-70; Bendixen and Abratt 2007, 69-82) |
| supplier performance | (Squire, Cousins, and Brown 2009, 461-477; Paulraj, Lado, and Chen 2008, 45-64; CAI and YANG 2008, 55- 70; Lavie 2007, 1187-1212) (Walter, Ritter, and Gemüden 2001, 365-377) |
| transactional factos | (SHAHZAD et al. 2015, 35-59; |
| relational factors | (SHAHZAD et al. 2015, 35-59; |
| Organizational compatibility | (SHAHZAD et al. 2015, 35-59; Sáenz, Revilla, and Knoppen 2014, 18-40) |
| knowledge integration | (Wang and Wei 2007, 647-674) (Squire, Cousins, and Brown 2009, 461-477; Sáenz, Revilla, and Knoppen 2014, 18-40; Revilla, Sáenz, and Knoppen 2013, 2935-2951; Liu 2012, 311-327; Chang and Gotcher 2007, 477-488; Bharadwaj and Dong 2014, 799-813) |
| joint investment\actions | (O'Toole and Donaldson 2002, 197; Wang and Wei 2007, 647-674) (Prior 2012, 100-114; Nyaga, Whipple, and Lynch 2010, 101-114; Caglio and Ditillo 2012, 61-78; Mukherji and Francis 2008, 154-161; Lavie 2007, 1187-1212; Lambert and Enz 2012, 1588-1625; Srivastava and Singh 2010, 3-17) |
| stability | (Perez-Arostegui, Benitez-Amado, and Huertas-Perez 2012, 703-717) (O'Toole and Donaldson 2002, 197; Lin and Tang 2009, 679-689) |
| knowhow | (Howden and Pressey 2008, 789-812; Ulaga 2003, 677) |
| personal interaction | (Howden and Pressey 2008, 789-812; Ulaga 2003, 677; Palmatier 2008, 76-89)(Tangpong, Hung, and Ro 2010, 398-414) |
| intangible assets | (Changsok Yoo et al. 2012, 244)(WAGNER, COLEY, and LINDEMANN 2011, 29-48; Inemek and Matthyssens 2013, 580-594) |
| support features | (Lin and Tang 2009, 679-689; Ulaga 2003, 677) |
| contact authority | (Palmatier 2008, 76-89) |
| | |

| communication absorptive capacity | (Humphreys, Williams, and Goebel 2008, 323-350; SHAHZAD et al. 2015, 35-59; Gullett et al. 2009, 329- 341; Grudinschi, Sintonen, and Hallikas 2014, 82-91; Paulraj, Lado, and Chen 2008, 45-64; Ambrose et al. 2008, 360-379) (Sáenz, Revilla, and Knoppen 2014, 18-40; Revilla, Sáenz, and Knoppen 2013, 2935-2951; Liu 2012, 311-327) |
|--------------------------------------|--|
| quality | (Sternquist, Chen, and Huang 2003, 34-37; O'Toole and Donaldson 2002, 197; Howden and Pressey 2008, 789- 812; Lin and Tang 2009, 679-689; Valanciene and Jegeleviciute 2012, 851-862; Ulaga 2003, 677; Palmatier 2008, 76-89; Chou 2014, 5041-5054)(Gullett et al. 2009, 329-341; Perez-Arostegui, Benitez-Amado, and Huertas- Perez 2012, 703-717; Bendixen and Abratt 2007, 69-82; Srivastava and Singh 2010, 3-17) |
| delivery | (Sternquist, Chen, and Huang 2003, 34-37; O'Toole and Donaldson 2002, 197; Lin and Tang 2009, 679-689; Ulaga 2003, 677) |
| well known/brand respect | (Sternquist, Chen, and Huang 2003, 34-37; Lin and Tang 2009, 679-689; Valanciene and Jegeleviciute 2012, 851-862) (WAGNER, COLEY, and LINDEMANN 2011, 29-48; Žabkar and Arslanagić-Kalajdžić 2014, 42-52) (Anker et al. 2015, 532-560) |
| innovation | (Revilla and Knoppen 2015, 1408-1436; O'Toole and Donaldson 2002, 197; Valanciene and Jegeleviciute 2012, 851-862) (Inemek and Matthyssens 2013, 580-594; Hurmelinna et al. 2002, 39; Sáenz, Revilla, and Knoppen 2014, 18-40; Prior 2012, 100-114; Bharadwaj and Dong 2014, 799-813) |
| operation efficiency | (Revilla and Knoppen 2015, 1408-1436; O'Toole and Donaldson 2002, 197) |
| buyer change request | (Crosno, Dahlstrom, and Manolis 2015, 688-699) |
| flexibility\adaptation | (Chin-Chun Hsu et al. 2008, 296-310; O'Toole and Donaldson 2002, 197; Wang and Wei 2007, 647-674; Chou 2014, 5041-5054) (Prior 2012, 100-114; Mukherji and Francis 2008, 154-161) |
| time to market | (Ulaga 2003, 677; Chou 2014, 5041-5054) |
| direct cost | (O'Toole and Donaldson 2002, 197; Howden and Pressey 2008, 789-812; Valanciene and Jegeleviciute 2012, 851-862; Ulaga 2003, 677; Chou 2014, 5041-5054) |
| indirect cost | (O'Toole and Donaldson 2002, 197; Howden and Pressey 2008, 789-812; Ulaga 2003, 677; Chou 2014, 5041-5054)(Humphreys, Williams, and Goebel 2008, 323-350; Srivastava and Singh 2010, 3-17) |
| location | (Howden and Pressey 2008, 789-812; Lin and Tang 2009, 679-689) |
| sustainability | (Cui and Coenen 2016, 43-68) |

process

transaction cost total: 52

(Ulaga 2003, 677)(Humphreys, Williams, and Goebel 2008, 323-350) (SHAHZAD et al. 2015, 35-59)



Appendix B: Conceptual framework and its relation to the RQ