The Role of Structural Bonds in the Development of Strategic Buyer-Supplier Relationships

Paper within Master Thesis in Business Administration
Author: Oscar King & Vinyoh Evodia Yiyen
Tutor: Henrik Agndal
Jönköping May 2012
Acknowledgment

This study would not have been accomplished without the generous assistance and contribution of some people. As such, these authors would like to express their profound gratitude and appreciation to the following.

First and foremost, the authors thank Almighty God. For without Him, the success achieved in writing and completing this study might not have been accomplished.

Secondly, the constructive criticism and guidance of the supervisor, Henrik Agndal is highly appreciated. The patience he exhibited, the time spent both in the seminars and responding to mails helped in achieving the success of this thesis.

Thirdly, the authors thank the case companies that were used in this study: Lagermetall AB, Atlas Copco AB, Saab Tech AB and Husqvarna AB for accepting to be used and also for the willingness and openness in which they provided the data that was used in conducting this research. We are really grateful to you all.

Fourthly, the effort of our thesis group mates did not pass unnoticed. We thank all the students chosen to oppose our research during the different seminars and others who contributed in every way possible. All the comments are appreciated. Additionally, the support of some staff members of the department of Logistics and Marketing at Jönköping International Business School (JIBS) is appreciated. Notably: Susanne Hertz, Leif-Magnus Jensen and Hamid Jafari.

Lastly, the authors are thanking their respective families: Fritz Alum Yah, Caroline King and Ima King for their love, moral support, companionship and encouragement throughout the period of conducting this research.

Thank you all.

Oscar King

Vinyoh Evodia Yiyen
Master Thesis in Business Administration

Title: The role of Structural Bonds in the Development of Strategic Buyer-Supplier Relationships.

Authors: Oscar King and Vinyoh Evodia Yiyen

Tutor: Henrik Agndal

Date: 2012-05-14

Subject Terms: Strategic Relationship, Buyer-Supplier Relationship, Relationship life-cycle, Structural Bonds, joint investment

Abstract

Background: The need to cut costs, save money, become profitable, be innovative, improve product quality and be responsive to customers’ demands is encouraging some organizations to form strategic relationships with suppliers. In achieving this, certain joint investments, called structural bonds, are developed within the relationship life-cycle. Although the bonds tend to tie down the partners and also create impediments for the termination of the relationship, they inevitably contribute to the achievement of mutual goals and sustaining competitive advantage. Past researches failed to relate the structural bonds’ development to any of the stages of the relationship life-cycle, which this study investigated.

Purpose: The purpose of this research is to investigate why and in which stages of a strategic buyer-supplier relationship are structural bonds initiated.

Method: A multiple case study approach, involving four companies, was undertaken to achieve the purpose of this study. The method used in collecting the empirical data is in-depth interviews with purchasing employees of these companies: Lagermetall AB, Atlas Copco AB, SAAB Tech AB and Husqvarna AB.

Results: Most of the structural bonds, based on this study, were introduced at the beginning of the relationships. Some of the reasons for introducing these bonds are: improved product quality, joint product development, knowledge transfer, innovation and communication. Though the bonds may be introduced by the more powerful organization in the relationship, there is interdependency in the relationship. The bonds influenced the following in the relationship: trust, commitment and cooperation, information sharing, and performance but also generated lock-in effects.
**Table of Contents**

**Acknowledgment** ........................................................................................... i

**Abstract** ........................................................................................................... ii

**List of Figures** .................................................................................................. vi

**List of Tables** ................................................................................................... vi

1 **INTRODUCTION** ....................................................................................... 1  
1.1 Background ................................................................................................. 1  
1.2 Problem statement ....................................................................................... 2  
1.3 Research purpose ......................................................................................... 3  
1.4 Intended Contribution ................................................................................. 3  
1.5 Thesis structure ............................................................................................ 3  

2 **THEORETICAL FRAMEWORK** .................................................................. 6  
2.1 The Relationship life cycle model ............................................................... 6  
2.1.1 Awareness Stage ...................................................................................... 7  
2.1.2 Exploration / Development Stage .......................................................... 8  
2.1.3 Expansion Stage ...................................................................................... 8  
2.1.4 Commitment / Integration Stage ............................................................. 9  
2.1.5 Disintegration / Decline Stage ............................................................... 9  
2.1.6 Dissolution Stage .................................................................................... 10  
2.2 Structural Bonds and the Constituents ....................................................... 11  
2.2.1 Structural Bonds .................................................................................... 11  
2.2.2 Constituents of Structural bonds ........................................................... 13  
2.2.3 Tangible investments ............................................................................ 14  
2.2.4 Intangible investments ......................................................................... 15  
2.2.5 Technology ............................................................................................. 15  
2.3 Synthesis / Research Model: ...................................................................... 16  

3 **METHODOLOGY** ...................................................................................... 19  
3.1 Research Approach ..................................................................................... 19  
3.1.1 Case study approach ............................................................................. 19  
3.1.2 Multiple Case Study Approach .............................................................. 20  
3.2 Case Selection ............................................................................................. 21  
3.3 Measurement Instrument .......................................................................... 21  
3.3.1 Interview Guide ..................................................................................... 21  
3.3.2 Research Questions to Interview Questions ........................................ 22  
3.4 Data Collection ........................................................................................... 23  
3.4.1 Selection of respondents ....................................................................... 23  
3.4.2 Data collection process ......................................................................... 24  
3.5 Data Analysis Process ............................................................................... 24  
3.5.1 Understanding Data .............................................................................. 26  
3.5.2 Transcribing Data .................................................................................. 26  
3.5.3 Categorizing Data .................................................................................. 26  
3.5.4 Identifying Data Relationships .............................................................. 27  
3.5.5 Interpretation of Data ............................................................................ 27  
3.6 Evaluation .................................................................................................... 27  
3.6.1 Reliability ............................................................................................... 28
4 Presentation of Empirical Data ........................................ 30
4.1 Lagermetall AB (Case One) ........................................ 30
4.1.1 Facility ............................................................. 30
4.1.2 Equipment .......................................................... 31
4.1.3 Human Resources ..................................................... 31
4.1.4 Training ............................................................... 31
4.1.5 Information Technology .............................................. 32
4.1.6 Shared Technology/Expertise ....................................... 32
4.1.7 Additional findings .................................................... 32
4.2 Atlas Copco Rock Drills AB (Case Two) .......................... 33
4.2.1 Facility ............................................................... 33
4.2.2 Equipment ............................................................. 33
4.2.3 Human Resources ..................................................... 33
4.2.4 Training ............................................................... 33
4.2.5 Information Technology .............................................. 34
4.2.6 Shared Technology/Expertise ....................................... 34
4.2.7 Additional findings .................................................... 34
4.3 SAAB Training Systems AB (Case Three) ......................... 35
4.3.1 Facility ............................................................... 35
4.3.2 Equipment ............................................................. 35
4.3.3 Human Resources ..................................................... 35
4.3.4 Training ............................................................... 36
4.3.5 Information Technology .............................................. 36
4.3.6 Shared Technology ...................................................... 36
4.3.7 Additional findings .................................................... 37
4.4 Husqvarna (Case Four) ............................................... 37
4.4.1 Facility ............................................................... 37
4.4.2 Equipment ............................................................. 37
4.4.3 Human Resources ..................................................... 37
4.4.4 Training ............................................................... 38
4.4.5 Information Technology .............................................. 38
4.4.6 Shared Technology / Expertise ..................................... 39
4.4.7 Additional findings .................................................... 39

5 Analysis of Empirical Data and Discussions ....................... 40
5.1 Structural bonds and the relationship life-cycle model ........... 40
5.2 Reasons for structural bonds ........................................ 42
5.2.1 Product quality and Competitive edge .......................... 42
5.2.2 Time Saving and Cost Cutting .................................... 43
5.2.3 Joint product development ......................................... 44
5.2.4 Meeting customers’ demand ....................................... 44
5.2.5 Knowledge sharing and Transfer ................................. 44
5.2.6 Innovation .......................................................... 45
5.2.7 Communication .................................................... 45
5.3 The influence of Structural bonds .................................. 46
5.3.1 Who initiates structural bonds .................................... 46
5.3.2 Trust ................................................................. 46
5.3.3 Lock-in effect ........................................................ 47
5.3.4 Commitment and Cooperation ................................................................. 48
5.3.5 Information sharing and exchange .......................................................... 48
5.3.6 Performance and success ........................................................................ 49

6 Conclusion .................................................................................................... 50
6.1 Theoretical contribution ............................................................................ 50
6.2 Managerial contribution / Implication ....................................................... 52
6.3 Final reflection and suggestion for future research ..................................... 52

References ...................................................................................................... 55

Appendix .......................................................................................................... 61
A. Profile Analysis of case companies ............................................................. 61
  I. Lagermetall AB ......................................................................................... 61
  II. Atlas Copco Rock Drills AB ................................................................. 62
  III. SAAB Tech AB ..................................................................................... 62
  IV. Husqvarna AB ..................................................................................... 63
B. Interview Guide ......................................................................................... 64
List of Figures
Figure 1.1: Thesis Structure ................................................................. 4
Figure 2.1: Relationship life-cycle ......................................................... 7
Figure 2.2: Buyer-Supplier investment types ........................................... 12
Figure 2.3: Types of Structural bonds .................................................. 14
Figure 2.4: The framework for relationship life-cycle & structural bonds Model ...... 17
Figure 3.1: Data Analysis Process ......................................................... 25
Figure 5.1: Relationship life-cycle/Structural bonds model .......................... 42

List of Tables
Figure 3.1: Respondents/interview information ...................................... 24
Figure 4.1: Summary of collected data .................................................. 30
1 INTRODUCTION

1.1 Background

The important role played by procurement in ensuring that organizations cut costs and earn profit is increasing (Anderson & Katz, 1998). Owing to this increasing importance, some organizations have progressed from the arm’s length relationships to a more collaborative or strategic relationship with suppliers (Bensaou, 1999; Heide & John, 1990; Wilson, 1995; Metcalf, Frear & Krishnan, 1992). In forming this strategic relationship, the buying organization can benefit from the expertise or acquire knowledge from the supplying organization (Badaracco, 1991). These are benefits the buying organization might not be able to acquire if the relationship had remained at arm’s length. Within this strategic relationship, suppliers are viewed as partners and stakeholders in the achievement of organizational goals and value creation (Han, Wilson & Dant, 1993).

The need for this strategic cooperation is for the company to, among other things, be innovative, competitive, meet customers’ needs, improve product quality, be responsive to customers’ demands and sustain the company’s competitive advantage (Cannon & Perreault, 1999). In addition, Just-In-Time (JIT) deliveries, a well-managed inventory system and computerized order placing technologies require a more closely connected relationship between the buyer and supplier (Cannon & Perreault, 1999). Bensaou (1999), opined that in a strategic partnership, it is expected that both the buyer and supplier would have invested in the relationship, tying critical assets in the partnership thereby increasing likelihood of risk and damage of any opportunistic behaviour by any of the parties in the dyad.

It has been shown that partners in buyer-supplier relationships are often willing to cooperate in order to maintain a relationship which is viewed as being mutually beneficial (Sheth & Sharma, 1997). This degree of cooperation, most often, leads to the development of structural bonds resulting from joint actions from both parties. The main factors pushing firms towards using a few numbers of suppliers is that collaborative ties with suppliers lead to improved performance, reduced cost and increased technical cooperation (Han et al. 1993).
Structural bonds are important variables necessary for the development of a strategic buyer-supplier relationship.

1.2 Problem statement

Many strategic relationships might involve high investments and relative time to develop. The purpose for these investments includes sustaining competitive advantage, becoming innovative, improved performance, cost reductions, and new product development. In the process of developing the relationship, some organizations embark on rationalization of their suppliers thereby forming a closer collaboration or strategic relationship with the remainder (Rushton & Walker, 2007). By supplier rationalization, Rushton and Walker (2007) meant identifying how many and which suppliers the buying firm will keep or partner with. The next step after identifying is to weed out the suppliers that do not meet the standards of the buying company (Adobor & McMullen, 2007).

There are different variables connected with a successful buyer-supplier relationship, as mentioned above. Whereas lots of researches have been carried out on most of the variables, notably: trust, commitment, adaptation, interdependence, mutual goals power, performance, satisfaction (Wilson, 1995; Dwyer, Schurr & Oh, 1987; Borys & Jemison, 1989), less or very little attention has been paid to structural bonds, though their importance to an ability to compete within the markets deserve as much attention as other variables (Rao & Perry, 2002). As a result, this study is delving into investigating structural bonding in a dyadic buyer-supplier relationship.

Structural bonds are those investments by the partners in a strategic relationship that enables the partners to be linked together towards the achievement of mutual goals (Smith, 1998); or adapt together thereby making investment that are difficult to retrieve if the relationship is dissolved (Rao & Perry 2002). It offers an avenue for both parties in the dyadic relationship to be physically linked as well as make it difficult for them to exit it (Smith, 1998); and, keep the parties together and cause them to interact in the relationship (Powers & Reagan, 2007). Drawing from Han et al. (1993), firms with high levels of structural bonding were found to have a higher degree of commitment to the continuation of the relationship than firms with lower levels of structural bonding. Structural bonding creates impediments to the termination of a relationship. It develops over time.
as the level of investments in the relationship grows. The more structural bonding grows, the more it becomes difficult to terminate the relationship (Wilson, 1995). From the foregoing statements, the importance of structural bonds to a strategic relationship deserves more attention.

In relation to other aspects of relationship variables like trust, commitment and power dominance in buyer-supplier strategic relationships, very few researchers (Michael & Benton, 1999; Boeck & Wamba, 2007; Bensou, 1999; Dwyer et al. 1987; Wilson, 1995; Rodriguez & Wilson, 2002; Narus & Anderson, 1987; Hakansson & Snehota, 1995; Smith, 1998; Powers & Reagan, 2007) have written on structural bonding. These researchers that wrote on structural bonding have failed to mention how these bonds are developed in a dyadic buyer-supplier relationship. They also failed to relate the bonds to the importance for creating them. Consequently, there are gaps in most of the past researches carried out in the area of buyer-supplier relationship to structural bonds which this study will try to fill.

1.3 Research purpose
The purpose of this research is to investigate why and in which stages of a strategic buyer-supplier relationship are structural bonds initiated.

1.4 Intended Contribution
The contribution of this study is to present the importance of structural bonds in the development of a strategic relationship between a buying firm and the supplying firm. Additionally, the study intends to contribute to the existing literature on strategic relationship by establishing that investments in structural bonds, for the purpose of enhancing the strategic relationship, could take place from when the relationship is formed to when it begins to disintegrate or decline. Also to show that, even though the role of trust is vital to a successful strategic buyer-supplier relationship, structural bonds importance has been undermined by organizations in the quest to achieve organizational goals.

1.5 Thesis structure
The study is divided into six (6) chapters. Below are the detailed outline of the thesis and a brief description of each chapter.
Chapter 1: Introduction chapter presented the background of the study.

Chapter 2: Theoretical framework reviews the relationship life-cycle model, which shows the different stages in the buyer-supplier relationship. In addition to this are the different types of structural bonds. The chapter ends with a synthesis of the relationship life-cycle and the structural bonds, leading to the development of the framework for the study and to the formation of the research questions.

Chapter 3: Methodology provides the method for collecting the empirical data needed to evaluate the research questions. Here, the discussions focused on case study approach (multiple), case selection, interview guide, selection of respondents, data analysis process, reliability and validity of the research among other things.

Chapter 4: Presentation of the empirical data describes the findings of the empirical data collected from the four cases, using the structural bonds as the dimension.

Chapter 5: Analysis and discussions of empirical data elaborate the collected data further. This analysis included the discussions of the empirical data for a better understanding between the theories and the result of the empirical study.
Chapter 6: Conclusion is the final chapter of the thesis. The chapter provides the contribution of the thesis to theory as well as managerial contributions. At the end of this chapter, the delimitation of the study, in the form of final reflection, and the suggestion for future research are also presented.
2 THEORETICAL FRAMEWORK

In this section of the thesis, theories relating to the purpose are discussed. Firstly, the researchers discuss the relationship life-cycle model. This is with the view to linking the stages of the relationship to the creation of structural bonds. Secondly, the constituents or types of structural bonds are discussed. Finally, the synthesis is presented.

2.1 The Relationship life cycle model

There have been numerous articles written on the subject of relationship life-cycle (Dwyer, Schurr & Oh, 1987; Ring & Van De Ven 1994; Ford, 1980; Wilson, 1995; Ellram 1991, amongst others). The relationship life cycle concept could be exceptionally important for predicting and influencing the direction of a business relationship (Ellram, 1991). There are different schools of thought or categories surrounding the classification of the relationship life-cycle: stages theory, states theory and joining theory (Batonda & Perry, 2003). Batonda et al. (2003) continued further by explaining the different classifications. The stage theory posits that relationships grow or develop through different progressive stages. The states theory focuses on strategic moves of exchange actors that occur in unstructured or unpredictable manner. While the last, joining theory focuses on entry processes of positioning, repositioning and exiting. However, for the purpose of this research, the stages theory shall be the focus of the researchers.

The research shall discuss the following stages of relationship life-cycle: Awareness, Exploration/Development, Expansion, Commitment/Integration, Disintegration/Decline, and finally, Dissolution. The first three stages of the cycle, according to Hertz (1996) involve increasing integration while the remaining three stages involve decreasing integration.
2.1.1 Awareness Stage

At this stage, the need for a partner arises and the search for the right partner begins. The choice for the company is between existing suppliers or a new supplier selection process may be undertaken. Evaluation of a new potential supplier could be based on the supplier’s experience, uncertainty and distance; and there are no commitment made at this stage (Ford, 1980). Of importance, in this stage, is the perception of the comparative advantage and the risks that are associated with the relationship before formalization. It is worthy for the parties to also understand any barrier that might bedevil the relationship’s development and progress before the final decision of commitment to the relationship (Ellram, 1991). In order to reduce the perceived risks, Wilson (1995) opined that preliminary discussions should be held with multiple potential suppliers, and also to involve suppliers the organization is already acquainted with. After these different issues surrounding the need for and the choice of a supplier, the buying company moves to the next step.
2.1.2 Exploration/Development Stage

Meaningful discussions with the potential suppliers shortlisted by the organization begin at this stage. The discussions are centred on obligations, benefits and burdens within the dyadic relationships. It could also be characterized by testing and evaluation of the purported services to be offered by the supplier (Dwyer et al. 1987, and Baker & Hart, 2008). Ring and Van De Ven (1994) calls it negotiation stage. This is where the actors develop joint expectations involving motivations, investments and uncertainties. Basic ground rules are established in this stage and it involves a high degree of contact between the firms, involving multiple levels and functions. By involving these contacts, the parties show their support and commitment to the relationship as well as enabling the acceleration of the partnership. Being the formation stage of the relationship, there are numerous unanswered questions; the frequent contacts made ensures that the questions are responded to swiftly (Ellram, 1991). Perceived loop-holes are filled by these frequent contacts as objections are responded to rapidly to the satisfaction of the other party.

It is also critical for the parties at this stage, to establish congruent goals regarding sale and profit objections and the purpose of the relationship. Information exchange handling and sharing discussion is also pivotal in order to cope with the risks and uncertainties in the expansion stage (Jap & Anderson, 2007).

Discussions commence about expected strategic advancement of the relationship, including the investments expected to further strengthen the relationship. Preliminary discussions about the necessary and vital investments that will be made, and what asset each party will be introducing individually to the relationship is proffered. It is during these discussions that an idea of what type of investments the parties will be creating jointly during the relationship life span is decided.

2.1.3 Expansion Stage

Based on the success achieved in the exploration/development (formation) stage, the relationship enters the next level, which is expansion. This level is characterized by continuous increase in benefits obtained by the parties in the relationship, including a probable increase in interdependence (Dwyer et al. 1987). An increase in risk-taking can also be noticed, as well as the parties’ commitment. The relationship is more stable here,
as such aids the integration and future development of the relationship (Dwyer et al. 1987). The goal here is to “improve the relationship, building strength and dependency, becoming committed to the partnering nature of the relationship” (Ellram, 1991, p. 15). Ellram (1991) further stated that the frequency of contacts is still high, but not as high as that of the exploration stage. Ellram (1991) also added that the discussion about strategic relationship is often initiated at this stage of the relationship. The continuous business relationship increases the level of transactions between the actors thereby leading to a higher level of commitment and trust (Ellram, 1991).

2.1.4 Commitment / Integration Stage

The relationship reaches maturity here. It is expected that both the buyer and the supplier are deriving simultaneous benefits from the relationship. It is also referred to as the most advanced and enlarged stage of the relationship (Dwyer et al. 1987). The goal here is to stabilize and maintain the relationship as a result of the solid ground work initiated and achieved at the beginning. The relationship is further integrated and the firms can synergize to increase their performance and success. Additionally, product and/or process improvement, expansion and development are also achieved. At this stage, both firms increase their level of collaboration and involvement, and improve the chances of achieving innovation (Ellram, 1991). According to Palmer and Bejou (1994), within this stage of the relationship, some certain degree of exclusivity between both parties which ultimately results in minimal information search for alternatives could have been developed.

2.1.5 Disintegration / Decline Stage

Disintegration in a relationship occurs where problems begin to crop up in the relationship. Dissolution, according to Dwyer et al. (1987) begins in an “intrapsychic stage” that could be initiated by one of the parties after observing that the goals, either mutual or individual, are not being met and/or that the cost of continuation outweighs the benefits. The authors of this thesis believe the “intrapsychic stage” is the disintegration/decline stage of the relationship. The argument of the researchers is based on the fact that dissolution, on its own, is a combination of stages, therefore, the need to create a stage preceding that.
There are diverging opinions regarding the final stages of the relationship life-cycle. Whereas some researchers fail to realize the disconnection between commitment / integration stage before moving to the dissolution stage (Dwyer et al. 1987; Ellram, 1991; Baker et al. 2008), others like Hertz (1996) and Alajoutsijärvi, Möller and Tähtinen (2000) argued that there is disintegration or decline stage in relationships. Additionally, those relationships on decline could be revived and restarted at the disintegration / decline stage, thereby returning the relationship to the exploration/development stage (Figure 2.1). Wilson (1995) posits that the level of investment by both parties could also help revive an ailing relationship. However, Jap et al. (2007) suggested that when a relationship in trouble is reconstituted, they may not fully recover and become as strong as they were initially. This to an extent may be true, but it also depends on the type of relationship and the level of trust and commitment in the relationship in the first instance. Where the relationship cannot be salvaged, it then moves to the dissolution stage. As Hertz (1996) showed, a relationship does not abruptly end, but it disintegrates gradually before finally being dissolved.

2.1.6 Dissolution Stage

Researchers, according to Baker and Hart (2008, p. 43), used different words to connote this stage of the relationship: “…switching, exit, dissolution, termination, fading, defection, disengagement, breakup, divorce and relationship demarketing.” For the purpose of this thesis, the words can be used interchangeably. The understanding with these words is that the relationship cannot be revived, it has to end somehow.

If the world may view relationships in terms of marriage, there is a tendency that some may end up in divorce (Perrien, Paradis & Banting, 1995). In line with the above statement, Tähtinen and Halinen-Kaila (1997) stated that “a relationship is dissolved when all activity links are broken and no resource ties and actor bonds exist between the companies”. Furthermore, Giller and Matear (2001) postulated that interaction, as a result of a trigger event or scenario in addition to the existing state of the relationship, can lead to the dissolution of a relationship. Other reasons offered for the dissolution of a relationship, as Ellram (1991) argued could be: declining product sales or unprofitable product; unsatisfactory performance by one or both parties; or a self-fulfilling dissolution. When these events occur, and there is no turning back, the best option or only option left is to
dissolve the relationship. At this stage of events, the parties may decide to bring the relationship to an end.

Dissolution of a relationship can be in two strategies, direct and indirect. By stating to the other party an intention to leave or end the relationship, the partner is using the direct strategy. On the other hand, the indirect strategy is accomplished when the breakup is executed without an explicit statement of aim (Dwyer et al. 1987 & Alajoutsijärvi et al. 2000).

2.2 Structural Bonds and the Constituents

2.2.1 Structural Bonds

Structural bonding can be defined "as the degree to which certain ties link and hold a buyer and seller together in a relationship as the result of some mutually beneficial economic, strategic, technological, and/or organizational objective, etc." (Williams, Han & Qualls, 1998, p. 137). The development of structural bonding, in a strategic relationship, is not a sufficient reason to attain success, but it is necessary “for the maintenance and continuation of the relationship” (Rodriguez & Wilson, 2002, p. 7).

Structural bond “is the vector of forces that creates impediments to the termination of the relationship” and develops “over time as the level of investments, adaptations and shared technology grows until a point is reached when it may be very difficult to terminate a relationship” (Wilson, 1995, p. 339). Investments in structural bonds locks in both parties in the relationship and ties them together (Nahapiet & Ghoshal, 1998). It constitutes all complex economic, strategic and functional factors that develop during a strategic relationship. Structural bonds also represent irretrievable investments in a relationship, pressures to maintain the relationship and contractual barriers (Rodriguez & Wilson, 2002). Furthermore, structural bonds are linked predominantly to economic exchange and are most often defined by negotiated transactions (Emerson, 1981). This simply implies that, the type of investment the parties in a relationship decide to embark on depends on what they negotiated and agreed upon. This negotiation usually stems from what is needed in the relationship to enable or facilitate achievement of mutual goals.
Structural bonding can lead to interdependence in the strategic relationships. As Powers et al. (2007) emphasized, that structural bonding consists of the dependence of each partner in a strategic relationship on the other party’s accomplishment. In a strategic partnership the parties depend on “strong recognized skills and capabilities in design, engineering, and manufacturing” (Bensaou, 1999, p. 38). For example, by being part of a design team, suppliers add value to a strategic relationship as well as build structural bonds.

![Buyer-Supplier Investment types](image)

As regarding these structural bonds, the researchers are investigating the investment decisions made jointly by both the buyer and the supplier in the dyadic relationship. As shown by figure 2.2, the supplier and buyer sides of the diagram shows investments brought in to the relationship individually. However, the joint area shows the structural bonds that the parties decided to invest in to achieve the goals of the relationship.

These types of structural bonds, which in the beginning of this research were categorized as tangible and intangible investments and other joint investments that could fall into any of the two previously mentioned categories, include the following: buildings,
equipment, tools, warehouse layout and location or factory, specific employees’ trainings, information technology (Bensaou, 1999).

### 2.2.2 Constituents of Structural bonds.

Partners in a relationship usually embark on different investments that will enable them achieve their goals. These different investments constitute structural bonds. These investments, within the framework of this research, will be referred to as Relationship Specific Investment (RSI), otherwise known as Transaction Specific Assets (TSA). By relationship specifics, it is the researchers understanding that these assets or investments cannot be used outside the relationship it was developed in (Woo & Ennew, 2004). Lohtia, Brooks and Krapfel (1994, p. 261) explain that transaction-specific asset “is an asset, either tangible or intangible, that has little value outside of a particular relationship.” The main reason for investing in them is for both actors in the relationship to achieve success.

These constituents are, in a way, related to the concept of adaptation used in some research (Wilson, 1995; Metcalf, Frear & Krishnan, 1990). Adaptation binds the buyer and supplier in the relationship as well as creates barrier for entry by competitors (Wilson, 1995). It shows the extent of investments the actors are able and willing to make in the relationship. By merely committing resources to the relationship, the parties are adapting to the other party’s needs (Metcalf et al. 1990). By adapting to the other actor, an organization shows the extent to which it is committed to the success of the business relationship.

There are two major components of relationship specific investment that constitute structural bonds: tangible and intangible investments. These components or constitutes are discussed in the following sections.
2.2.3 Tangible investments

Examples here include investments such as in buildings and infrastructure, Information Technology (IT), tooling, assets and equipment dedicated to the relationship, investment in products used necessary for production and components procured jointly by the supplier and buyer etc. (Bensaou, 1999).

Facilities

Tangible investments are investments in physical facilities that can be seen, touched and felt. These may include, but not limited to: warehouses, factories or office spaces built to better serve the other actor. They are constructed, installed or designed with the goal of achieving a successful relationship as well as attaining mutual goals. These facilities may be situated closer to either the buying or supplying firms (Cox, Lonsdale & Watson, 2003; Wilson & Jantrania, 1994). They are created in order to enhance the efficient and effective management of inventory, and also to minimize transportation costs (Lohtia et al. 1994).
**Equipment**

Investments in equipment can be differentiated from facilities based on the definition of equipment by two Internet based dictionaries. Equipment is defined as all the fixed assets of an organization, other than land and buildings (Merriam-Webster, 2012). The second definition is in line with the first. It defined equipment as a tangible property that is used in organizational operations, also excluding land and buildings (Business Dictionary, 2012). Equipment includes other assets such as vehicles, tools and different forms of machines that are used in achieving strategic relationship success.

**2.2.4 Intangible investments**

They include investments in people or in time and effort spent learning the business practices or training employees, shared technology and IT (Bensaou, 1999). These are strategic relationship investments that might be seen but not necessarily touched.

**Human Resources**

Investment in people or in time spent in learning the business practices, e.g. different organizations have different cultures and practices. Once in a strategic relationship, the parties invest time and resources in learning cross-cultural practices. This is because a better understanding of each other’s organizational culture and having a better language competence will increase the level of success in understanding both partner’s needs and interests (Pucik, 1988).

**Training Employees**

Investments in employee trainings are classified as non-retrievable investment because they cannot be recovered if there is dissolution of relationship (Wilson, 1995; Wilson & Jantrania, 1994). Just like parties in a dyad invest in learning each other’s organizational culture, so do they also invest in training existing or newly hired company employees.

**2.2.5 Technology**

These are Investments that may be categorized as tangible and / or intangible.

**Information Technology**

This can be seen above as both a tangible and an intangible type of investment. There is increased evidence that companies are continuously making substantial investments in IT. As such, most dyadic relationships usually embark on substantial investments in IT
to assists them achieve specific task or mutual goals (e.g. a purchasing function). Examples of IT investments usually undertaken in strategic buyer-supplier relationships include: Personal Computers, application software programs, fax machines, modems, EDI systems, emails (Rodney & Ven, 1997) and RFID (Boeck & Wamba, 2008). Investments in IT as defined by Rodney and Ven (1997) as comprising of investments in computer hard and software programs, communication systems as well as in resources that are dedicated to supporting these capabilities. Sheth and Sharma (1997) observed that among the first step in strengthening a strategic buyer-supplier relationship is the introduction of technology such as EDI.

**Shared Technology**

By shared technology, the researchers refer to technology leadership, exchange of technological information, amongst others. Investments, by organizations, in shared technology strengthen the structural bonds between firms in a relationship (Steffel & Ellis, 2009). This is the extent to which parties in a dyadic value the expertise contributed by the relationship which leads to building a stronger relationship (Wilson, 1995). Shared technology is one of the structural bonds that bind a relationship together and increases the parties’ level of commitment to the strategic relationship Dwyer et al. (1987). According to (Rodney and Ven, 1997) shared technology is an important variable across a relationship development stages. Investment in shared technology, in the early stages of the buyer-supplier relationship, can be a barrier to the development of the relationship because of uncertainty (Volsky and Wilson, 1994). However, Volsky and Wilson (1994) further emphasized that this contributes to a stronger relationship, in the long run (cited in Jagdish & Atual, 1994). Early introduction of shared technology, Wilson (1995) observed, created relationship problems. However, as the relationship progresses shared technology contributes to a stronger relationship.

There is a linkage between Information Technology (IT) and shared technology in that by installation of a technology like RFID, information can be shared by the organizations in the dyadic relationship (Boeck and Wamba, 2007).

**2.3 Synthesis / Research Model:**

Having presented the relationship life-cycle detailing the different stages, and also presenting the types of structural bonds, the authors of this study will be presenting the research model for this study in this section.
In presenting this synthesis, this study will ignore some of the stages in the relationship life-cycle as not being involved in value creation for both organizations. The awareness stage, involves the search for partners to form strategic relationship with. At this stage, there is no discussion about possible relationship specific investments as no relationship has yet been formed. The disintegration/decline and dissolution stages are also devoid of investments because at these stages, the firms are withdrawing or freezing the assets.

<table>
<thead>
<tr>
<th>The Framework for Relationship life-cycle &amp; Structural Bonds Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Facilities</td>
</tr>
<tr>
<td>Equipment</td>
</tr>
<tr>
<td>Human Resources</td>
</tr>
<tr>
<td>Information Technology</td>
</tr>
<tr>
<td>Shared Information</td>
</tr>
<tr>
<td>Employee(s) Training</td>
</tr>
</tbody>
</table>

*Figure 2.4: Research Model*

The types of bonds adopted in this study were retrieved from different scientific journals and textbooks. There might be more bonds not mentioned in the theoretical framework that might be discovered in the process of finding answers to the research questions. If this is the case, these bonds will be included in the above framework.

Earlier, some structural bonds and their importance were presented, as well as the different stages of a strategic buyer-supplier relationship life-cycle. Notwithstanding the above, there was still the need to discover more structural bonds during the process of this study. As such, it is pertinent to learn the linkage or connection between the structural bonds and the different stages of the relationship life-cycle.
1) What are these structural bonds and which are related to the different stages of the strategic buyer-supplier relationships life-cycle?

The need for strategic relationship has been presented in the first chapter of this study as including: innovation, product quality improvement, new product development, meeting customers’ specifications/needs, knowledge sharing, and sustaining an organization’s competitive advantage (Cannon & Perreault, 1999; Badaracco, 1991). The above reasons may not be comprehensive enough, which is the reasons the authors of this thesis are researching, based on the companies’ point of view, what reasons they have for developing or initiating the different structural bonds.

2) Why are different structural bonds initiated / developed in a strategic buyer-supplier relationship?

The role of structural bonds in achieving a successful buyer-supplier relationship cannot be over-emphasized. It is known that structural bonds make it difficult for relationships to be easily terminated (Wilson, 1995). The decision to invest in structural bonds can be taken by the buying firm, the supplying firm, a third party or joint decisions by any of these parties. It is imperative to know who makes the decision to a joint investment and the influence the initiator has over the other party in the relationship. Additionally, it is worthy to know the impact the bonds play in the length and development of the relationships, as well as the role of power and dominance in the relationship.

3) Who initiates the introduction of structural bonds in a buyer-supplier strategic relationship and what influence do the structural bonds have on the relationship?
3 METHODOLOGY

After reviewing some relevant literatures surrounding structural bonds, relationship life cycle model and presenting a synthesis of this phenomenon in the chapters preceding this, this chapter will be presenting the research methods intended to fulfill the purpose of this study. The outlay includes the discussion of the research approach, case selection, measurement instrument, data collection and the analysis process. The chapter will be concluded by stating the reliability and validity of the findings.

3.1 Research Approach

There are two approaches generally used in conducting researches. Saunders et al. (2009) stated these approaches as inductive and deductive and elaborated on them as: deductive approach is used after the development of a theory or conceptual framework then design a research strategy to test that theory using the collected data; while inductive approach is used when theory or conceptual framework is arrived at from the results of the data analysis. Once the approach has been decided, a qualitative or quantitative technique of data collection can be employed.

In the case of this study, a qualitative technique was employed where interviews were administered for the collection of primary data (Malhotra, 2009), which according to Saunders et al. (2009) is an effective way to obtain information relevant to a study asides questionnaires and observations. This approach enables researchers gain a causal, relational and descriptive result for a study and as such put the researchers in a better position to further clarify the phenomenon of study (Jacobsen, 2002). The strategy that was used in the conduction of this qualitative study is case study (Saunders et al. 2009).

3.1.1 Case study approach

A case study, as noted by Yin (2003), is an empirical study which treats real life phenomenon while using several sources of data. This research is based on such a real life phenomenon as opined by Yin (2003) and, therefore, the use of a case study approach can properly capture this phenomenon from the perspective of the companies. The phenomenon in this study has not been widely researched, as such, there is the need to expound the importance of structural bonds in a buyer-supplier relationship. Within this phenomenon, the researchers extended this exploration by relating these structural bonds to the relationship life-cycle model.
Case studies are good at developing theories and at getting an in-depth understanding of a phenomenon that has not been explored in the past since they can be studied in their real life context (Yin, 2003). Vissak (2010, p. 371) stated that “Case studies do not necessarily have to rely on previous literature or prior empirical evidence.” That case studies could be used to build theories, even if the phenomenon of the study is less known (Vissak, 2010).

Yin (2003) mentioned a number of case studies which included single and multiple case studies.

### 3.1.2 Multiple Case Study Approach

The purpose of this study as earlier noted is to investigate why and in which stages of a strategic buyer-supplier relationship are structural bonds initiated. In order to achieve this purpose, a multiple case study approach was used. This is with the view to study the phenomenon from different companies’ perspectives.

According to Saunders et al. (2009, p. 146-147), a multiple case study is used in order to investigate a phenomenon and “establish whether the findings of the first case occur in other cases and, as a consequence, the need to generalize from these findings.” Baxter and Jack (2008, p. 550) explains that a “multiple or collective case study will allow the researcher to analyze within each setting and across settings.” This analysis enables the researchers to compare various cases which allow the researchers to draw generalized conclusions and increases the rationale for a good case study (Saunders et al. 2009 & Yin 2003). Another reason for the choice of multiple case study in this research is due to the fact that analytical conclusions made from two or more independent cases being more powerful than that of a single case study (Yin 2003). The authors intend to use the different cases to draw valid and logical conclusions to support the research from the companies interviewed.

Multiple case study also enables exploration within and between cases, which helps to replicate findings across cases thus giving room for generalization of the findings (Campbell & Ahrens 1998). The holistic approach of multiple case study is being used as compared to the embedded approach (Gray, 2004; Yin, 2003). Holistic approach of multiple case study is used in this study because the research is investigating the role of structural bonds in a strategic buyer-supplier relationships and not a single bond. Ac-
cording to Yin (2003), multiple case studies are used to predict similar or contrasting results, as such, the evidence from this approach are considered as reliable and yields more robustness to the conclusions due to the large sample size used. Gray (2004) supported Yin (2003) by stating that multiple case study improves the reliability and generalizability of a research. Finally, a multiple case study approach is used because it provides the authors of this thesis with the opportunity to study and analyze the phenomenon from multiple perspectives (Saunders et al. 2009).

3.2 Case Selection
In selecting the cases for this study, the first determinant was the choice of country. The authors of this thesis agreed that Sweden is too large a segment and decided to streamline the choice to business districts in the country. Afterwards, the authors decided on two business districts because of their proximity to one another: Örebro and Jönköping. The second determinant for the selection of cases was the choice of industry. Initially, the research targeted companies from the steel & automotive industry. However, after a number of emails and calls to over 50 companies in this industry, only two companies accepted to be interviewed. As such, the authors of this research relaxed the selection criteria and extended it to manufacturing industries in general. A third determinant for selecting the cases was the existence of strategic relationships with suppliers or buyers. In order to be a respondent in this study, the organizations must have, not just strategic relationships with suppliers or buyers, but also be involved in joint investments with these partners.

3.3 Measurement Instrument

3.3.1 Interview Guide
The prime source for data collection in a case study research, as noted by Voss, Tsikriktsis and Frohlich (2002), is structured interviews which are often backed up by unstructured interviews and interactions. For the purpose of this research, primary source of data was collected through interviews conducted with four different companies.

One reason for the choice of interviews is the role interviews play in retrieving information from respondents on a topic of interest (Kvale, 1996). In order to achieve the purpose of this study, the use of interview is highly recommended as against observation method. According to Patton (2002), interview is used, as against observation, to
find out from the companies the information that cannot be readily observed. Saunders et al. (2003) supported the use of interviews as an effective way to obtain information that is directly relevant to a study. Arksey and Knight (1999, p.32) informs that “Interviewing is a powerful way of helping people to make explicit things that have hitherto been implicit – to articulate their tacit perception, feelings and understandings.” Patton (2002, p. 341) affirmed the above by positing that the purpose of interview is “to allow us to enter into the other person’s perspective… with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit.”

When using interview, the researcher has to decide which type of interview structure to use, such as: structured, semi-structured, unstructured and non-directive interviews (Saunders et al. 2009). The semi-structured interview was used in this study. This semi-structured interview is also referred to as open-ended question (Yin, 2003) or standardized open-ended interview (Patton, 2002). This is because the objective of this research is not to test any hypothesis but to gather answers to the earlier stated research questions (Kvale, 1996). In addition, this interview choice gives these authors an opportunity to structure the questions following their discretion. It gives room to open ended questions allowing the researchers to ask questions that had not been preconceived when preparing the interview but which are necessary in fulfilling the purpose of this study (Yin, 2003; Gray, 2004). It also allows for extended views, opinions and action probing where desirable so that respondents can expand on their responses (Gray, 2004).

3.3.2 Research Questions to Interview Questions

Three research questions were developed after the review of some literatures and theories. The research questions were formulated with the view to investigating which types of structural bonds are associated with the different stages of a strategic buyer-supplier relationship’s life-cycle. Since the research questions alone were too broad in achieving the purpose of the research, it became necessary to develop interview questions that complemented these research questions. Consequently, the authors of this study proceeded with transforming the research questions into interview questions so as to ease the process of data collection.

To achieve this, the authors began by brainstorming on what each research question seeks to achieve. The research questions were further critically analyzed and the interview questions were developed in order to facilitate the collection of primary data. The
terms in the research questions were broken down as much as possible during the transformation process to ease the respondents’ understanding, as well as enabling interesting conversation and communication of needed information.

By breaking down the research questions, uncomplicated but specific and generic interview questions were asked in order to retrieve information that were analyzed and easily presented to the readers. The authors of this study further concluded that some questions were appropriate in answering the different research questions without exposing critical facts about the organization.

The interview questions were categorized into different sections. The first question contained general opening questions about the companies, which will further explain the involvement of the companies in strategic relationships. Questions 2 to 8 are related to the three research questions. Questions under number 9 (closing questions) specifically targeted the second part of research question 3 and additional findings that were used in the analysis and discussions section of this study.

The interview guide is attached in the appendix section of this research.

3.4 Data Collection

This is the process by which the data and information for this study is gathered (Zikmund, Babin, Carr & Griffin, 2009). Data, according to Zikmund et al. (2009, p. 69), “may be gathered by human observers or interviewers, or they may be recorded by machines as in the case of scanner data and Web-based surveys.” In conducting this study, data was collected from one source - primary. The primary source of data for this study was an in-depth interview with employees of manufacturing firms working in relation to strategic relationships with suppliers.

3.4.1 Selection of respondents

As a result of the nature of the study, being that the research is focusing on a particular department in the organizations; the respondents were employees from the company’s purchasing department. The reason is that the responsibility to procure the raw materials and subsequent relationship building with the suppliers lies with the department. In the case of Lagermetall AB, the respondent had worked in purchasing and sales departments for a long period of time in the past and had garnered enough experience in relationship building with suppliers and buyers, and thus qualifies to be interviewed.
The following is a table showing the respondents/interview information.

<table>
<thead>
<tr>
<th>Company</th>
<th>Respondent</th>
<th>Date</th>
<th>Time</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lagermetall AB</td>
<td>Niclas Boson (Quality Mgr.)</td>
<td>2012-04-04</td>
<td>13.00–13.36</td>
<td>36 minutes</td>
</tr>
<tr>
<td>Atlas Copco Rock Drills AB</td>
<td>Håkan Löfgren (Strategic Purchasing)</td>
<td>2012-04-05</td>
<td>09.00–09.56</td>
<td>56 minutes</td>
</tr>
<tr>
<td>SAAB Tech AB</td>
<td>Stefan Marthinson (Director Procurement)</td>
<td>2012-04-18</td>
<td>13.00–13.45</td>
<td>45 minutes</td>
</tr>
<tr>
<td>Husqvarna AB</td>
<td>Zsuzsa Velkey (Buyer)</td>
<td>2012-04-20</td>
<td>15.15–15.41</td>
<td>26 minutes</td>
</tr>
</tbody>
</table>

Table 3.1: Respondents/interview information

The duration of the interviews was between 26 to 56 minutes. The interviews were held in the organization’s premises.

3.4.2 Data collection process

The data for this study were collected through the interviews conducted with four companies: Lagermetall AB, Atlas Copco AB, SAAB Tech AB and Husqvarna AB. The interviews were conducted in Örebro and Jönköping Sweden. During these interviews, a recorder was used to capture the whole interview in order to ensure important details were not lost (Saunders et al. 2009). Hoepfl (1997, p. 53) further emphasized that recording the interview has “the advantage of capturing data more faithfully than hurriedly written notes might, and can make it easier for the researcher to focus on the interview.”

3.5 Data Analysis Process

Data analysis has been defined and explained in different ways by contemporary and past researchers. Data analysis requires certain level of creativity by the researchers because the raw data must be placed “into logical, meaningful categories; to examine them
in a holistic fashion; and to find a way to communicate this interpretation to others” (Hoepfl, 1997, p. 55). Zikmund et al. (2009, p. 70) defines it as “the application of reasoning to understand the data that have been gathered.” It is the process of breaking down the collected data into smaller units in order to reveal the elements and structure (Gray, 2004). Data analysis process also involves the reduction of data. This reduction process started during the data transcribing step to the identifying data relationship step. According to Saunders et al. (2009, p. 503) data reduction “includes summarizing and simplifying the data collected and/or selectively focusing on some parts of this data. The aim of this process is to transform the data and to condense it.” In order to achieve a successful reduction of data, reference was made to the research questions which guided the development of the interview questions.

There are different guidelines available to researchers for analyzing qualitative data. It is thus advisable that by studying examples of qualitative analysis, researchers can be provided with support and assistance; however, these “guidelines, procedural suggestions, and examplers are not rules. Applying guidelines requires judgment and creativity. Because each qualitative study is unique, the analytical approach used will be unique” (Patton, 2002, p. 433).

The following are the steps of data analysis used in this study.
3.5.1 Understanding Data
The first step in analyzing the data collected during the interviews was to listen to the recorded copy of the interview conducted at the companies (Lagermetall AB, Atlas Copco AB, SAAB Tech AB and Husqvarna AB). This step was undertaken to ensure that the content of the information in the data collected were understood (Taylor-Powell & Renner, 2003).

3.5.2 Transcribing Data
After understanding the contents of the interviews, the next step of analysis was the transcription of the interview contents into written form by using the actual words of the respondents (Saunders et al. 2009). In achieving the goal of this step, the words of the interviewees were written down based on the conducted interviews. Additionally, the information that were important in answering the research questions were transcribed from the recorded interview (Saunders et al. 2009).

Transcribing only the important part of the interviews also meant summarizing the contents of the data collected, thereby combining the steps of transcribing and summarizing. The transcribing and summarizing “involves condensing the meaning of large amounts of text into fewer words” (Saunders et al. 2009, p. 491), without distorting the meaning or messages the respondents were articulating.

3.5.3 Categorizing Data
The categorization step of the data analysis was executed based on the three research questions introduced in order to answer these research questions. Additionally, other new information that was not planned for can be discovered through this categorization.

Since the interview questions were generated from the research questions, “preset categories” system was used to categorize the collected data. According to Taylor-Powell and Renner (2003), the preset categorization is used when the lists of themes or categories are known in advance before the data is searched.

The categorization for this study was achieved based on the different structural bonds stated in the theoretical framework and those discovered during the interview sessions. These structural bonds formed the bases for the categorization step.
3.5.4 Identifying Data Relationships
At this step, the responses from the four cases studied were used to understand the phenomenon. In order to aid the presentation of findings, the responses are grouped under similarities and contrasts. By similarities, the authors studied the responses of the interviewees to understand where the four cases agree regarding the development of structural bonds during the relationship life-cycle. Contrasting responses on the other hand showed disagreements.

3.5.5 Interpretation of Data
This step of data analysis was used in presenting the data in Presentation of findings. This is the step where meanings and significance are attached to the analysis of data (Taylor-Powell & Renner, 2003). It is the step to make sense of the data collected and it also involves going back and forth between the data or information collected during the interview and the thoughts and perspectives of the researchers (Patton 2002). Patton (2002, p. 480) emphasized further on interpretation as it “involves going beyond the descriptive data. Interpretation means attaching significance to what was found, making sense of findings, offering explanations, drawing conclusions, extrapolating lessons, making inferences, considering meanings, and otherwise imposing order on an unruly but surely patterned world.”

3.6 Evaluation
There are different terms used in evaluating qualitative and quantitative researches; however for the purpose of this study reliability and validity were used. Different authors have diverging views about the use of these terms in qualitative and quantitative research. Quantitative research looks at validity and reliability from two standpoints: reliability, whether the results are replicable, and validity, whether the means of measurement are accurate and if they measure what they are intended to measure (Golafshani, 2003). Qualitative research on the other hand looks at validity and reliability in areas of precision, transferability and credibility and sets out to present a means for judging the quality of a research (Patton 2002). Patton (2002) further admonished that every qualitative researcher should be concerned about the validity and reliability of their study.
3.6.1 Reliability

According to Saunders et al. (2009, p. 156), reliability refers to “the extent to which your data collection techniques or analysis procedures will yield consistent findings.” The objective of reliability is ensuring that same result will be arrived at if a different investigator conducts the same research (Yin 2003). According to Yin 2003, this is one of two ways of measuring the quality of a research. Golafshani (2003), states that, the examination of trustworthiness in qualitative research is crucial to ensure reliability of the research. Though this study did not adopt the term ‘trustworthiness’, validity is used instead and they are synonyms.

In other to ensure reliability of the findings in this study, the researchers made sure that the interviewees were chosen from the relevant departments thus avoiding what Saunders et al. (2009) referred to as participant error. Some of the respondents have worked for these companies for over 10 years and they have also worked in building relationships with the companies’ suppliers and buyers alike. To increase reliability of a research, the method of data collection is vital. As Flick (2009, p. 386) opined, “the quality of recording and documenting data becomes a central basis for assessing their reliability and that of succeeding interpretations”. Another way of ensuring reliability of this study was by ensuring the use of similar standardized interview questions. The quality of the interview guide is a very important factor in increasing the reliability of a research (Flick, 2009). The interview for this study was conducted in English since the chosen respondents and the interviewers were all fluent in English and the interview was recorded to increase the level of validity of the data collected.

One factor that could affect the reliability of empirical data collected in this study is language barrier of the respondents. Though the interview was conducted in English and the respondents are fluent in the language, the authors of this thesis believed that there are elements of distortion in some of the responses. In order to be able to correct this, the follow-up questions were rephrased so that the responses were compared and a better conclusion derived. Whereas some direct questions may be affected, the overall responses were not affected by these distortions.

3.6.2 Validity

Validity is all about findings, portraying what they appear to be about (Saunders et al. 2009). It is about whether the researchers see what they think they saw (Flick, 2009).
Validity, according to Mentzer and Flint (1997, p. 201) is also “a hierarchy of procedures to ensure that what we conclude from a research study can be stated with some confidence (i.e., the conclusion is valid).” According to Yin (2003), validity encompasses construct, internal and external validity (also known as generalizability). Construct validity, according to Saunders et al. (2009, p. 373) “refers to the extent to which your measurement questions actually measures the presence of those constructs you intended them to measure”.

Internal validity is used to determine the relationships between two phenomena (Mentzer & Flint, 1997); and, to establish causal relationships (Yin, 2003). External validity on the other hand is used to establish the generalization of a finding (Yin, 2003). Mentzer and Flint (1997, p. 211) states that external validity is “the degree to which the research findings can be generalized to the broader population.” The validity of a study can be affected by participant and or observer error or bias which occurs mostly during the interview process (Saunders et al. 2009 & Zikmund et al. 2009). Creswell (2009) emphasizes that it is empirical to keep the notion of validity in mind throughout the period of conducting a research. As regard this thesis, generalizability was ensured by the case companies being chosen from different industries even though the number of companies interviewed was small. The results achieved were similar, even though the interview cuts across different industries.

To ensure the validity of the findings made, the study ensured that the interview questions were derived correctly from the research questions to enable the collection of data relevant in meeting the purpose of this research. Another way in which the authors ensured the validity of this study was by ensuring that the interview was recorded so as not to miss out on any useful data. This method ensured that required data and information were collected and subsequently analyzed for the purpose of achieving the aim of the study. Additionally, the quality of the respondents increased the validity of the study based on the number of years they have worked with the organization. This longevity in service of our respondents increased the validity of the data collected during the interview.
4 Presentation of Empirical Data

The data collected from the interviews with the case companies are presented in this chapter. The dimensions for the presentation will be the structural bonds and the case companies are: Lagermetall AB (Case 1), Atlas Copco Rock Drills AB (Case 2), SAAB Tech AB (Case 3) and Husqvarna AB (Case 4).

<table>
<thead>
<tr>
<th>Structural Bonds</th>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
<th>Case 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Equipment</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Training</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Information Technology</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Shared Technology</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Additional findings</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 4.1: Summary of collected data

4.1 Lagermetall AB (Case One)

Lagermetall AB has one purchasing department. This interview covered the entire purchasing activity with the suppliers. In this subsection of the thesis, the presentation of empirical data contains quotations from the respondent: Niclas Boson.

4.1.1 Facility

Presently, this company does not have any joint investment in facility with any of its suppliers. However, the company has plans to expand its warehouse so as to meet up with the demands of one of their strategic customers who requires the availability of more stock from the company to meet up with their increased demand. According to the respondent the company, “in the future will invest in improving and expanding our warehouse due to being able to meet a specific buyer’s demand.” From the information gathered from the company, their relationship with this customer is pretty young and is
still at its early stages (Development and expansion stages). The decision to invest in the warehouse was initiated by the customer.

4.1.2 Equipment
This company has invested in measuring machines (equipment) with its china based supplier for the creation of a quality centre to measure the quality/standard of the products produced in china so as to conform to the standards in Europe. The respondent stated that the company has “invested in equipment for quality testing/measuring of our products together with our supplier.” The need for this particular investment was identified and invested in at the beginning of the relationship, implying that this investment began at the development stage of the relationship. Lagermetall AB initiated this investment base on their power compared to the Chinese supplier.

4.1.3 Human Resources
The company formed teams with some of their partners in order to tap and understand each other’s competences for the purpose of the relationship. The respondent stated that if the competence cannot be found within the formed team, such capability and competence can be employed. The respondent emphasized that the company “constantly have to improve our human resources with employee training and also hire new employees when needed”. The need for this investment is usually initiated by any of the partners with a need to fill in the vacuum or position. This particular bond was introduced at the beginning of the relationship but it is an ongoing process that takes place basically in all the stages of the relationship life cycle.

4.1.4 Training
Another of such joint investments is in employee training and staff education to enable them understands the company’s products and maintains continuity. This particular investment takes place from the beginning of the relationship to the integration stage since it is an ongoing process. The respondent stated that “we have many of our suppliers who come up with education. We try to do this a lot more than we did in the past. If we have a supplier for a new product, they come and have 1 or 2 days education with our staff to enable them understands the product better”. The respondent further stated that training is becoming a “harder demand from our clients”. This process is usually initiated by any of the parties in the relationship.
4.1.5 Information Technology

This company presently does not have any joint investments on IT. One of their partners/suppliers made a proposal on joint investment on EDI but they turned down the idea due to the fact that the relationship was new and the investment was costly. The company’s main medium of communication presently is via emails, fax and telephone.

4.1.6 Shared Technology/Expertise

Both parties constantly exchange expertise and educate each other on strategies to improve their business. An example of such cases is the expertise the company exchanges with its China supplier for the improvement of their product quality. The respondent retorted, “the important thing for us is not the investment in the machinery but in the quality. We try to educate our supplier on the quality we want in Europe.” Another example is where the company bought a system for handling and booking of freight and their supplier on the other hand provides the expertise knowledge needed to operate this system. These investments took place at the development and expansion stages of the relationship. The idea for this investment was initiated by lagermetall.

Additionally, the company also has Joint marketing investments with their suppliers to promote their businesses. An example of such investment is joint investment in trade fairs. The idea for this joint marketing was initiated by both parties and took place at the expansion stage of their relationship. Investment in Catalogue is another type of shared technology the company undertakes with the suppliers. The idea for this investment was initiated by their supplier. This investment was developed at the expansion stage of the relationship.

4.1.7 Additional findings

The need for a strategic relationship was prompted by the desire to compete price wise with the company’s competitors, which could be better achieved by establishing good connections with a few strong suppliers/producers from whom the company buys materials. The need to be innovative while providing better quality products to the clients and the desire to maintain already existing ties or network also pushed the company into collaborative relationships with some of its suppliers.

So far, joint investments at Lagermetal AB have been successful and have helped a great deal in fostering their relationship and in achieving mutual goals. This notwith-
standing, the company experienced some failed investments in the past having invested in some structural bonds and their supplier went bankrupt. This led to substantial financial losses for the organization. According to the company, these investments do not prevent the relationships with the suppliers either negatively or positively if the purpose for the establishment is not achieved. If the relationship disintegrates, the structural bonds do not force the partners to remain in the relationship.

4.2 Atlas Copco Rock Drills AB (Case Two)

*The interview at Atlas Copco Rock Drills AB was held with Rocktec Division. Within this Rocktec division, there are different strategic purchasers saddled with the responsibilities to manage different commodities. The respondent manages electronics/electrical commodity. In this subsection of the thesis, the presentation of empirical data contains quotations from the respondent: Håkan Löfgren.*

4.2.1 Facility

Based on the fact that the respondent worked for the electronic commodity section of Rocktec Division in Atlas Copco Rock Drills AB, it was discovered that this division does not have any joint investment in facility with any of its strategic suppliers.

4.2.2 Equipment

The Company has existing structural bonds with some of its strategic suppliers. The respondent stated that the company has “invested in test equipment, fixtures, tooling for plastic, casting and molding”. These investments are introduced at all the stages of the relationship life cycle depending on the volume of transaction between the two companies. The need for this investment was initiated by Atlas Copco.

4.2.3 Human Resources

There are no joint investments based on the strategic relationships with their suppliers. The respondent stated that employment of staff is basically dependent on the needs for such and not on relationship with suppliers.

4.2.4 Training

This respondent also supported the views that training is very important in buyer-supplier relationship. The respondent stated that the organization holds regular “weekly and monthly trainings” with their suppliers as well as “yearly strategic training sessions”. This training usually takes place at any of the stages: development, expansion or
integration, and it is an ongoing process. It is usually initiated by Atlas Copco or any of the suppliers.

4.2.5 Information Technology
According to the respondent, “when we start a new product, we need to set up new infrastructures like add a new software or hardware program. we also have EDI set up with the order flow.” Atlas Copco has made some joint investments in Electronic Data Interchange (EDI) and web based systems with some of its strategic suppliers. The reason for these investments was to enable an easy way to manage order flows, reduce transaction cost and also reduce the inconveniences associated with the use of fax machines. The idea was initiated by Atlas Copco. There is no one stage in the relationship where this investment is to be introduced. It might come at the start of the relationship depending on whether the volume of transaction is high or low. If the volume is high, investment in IT, e.g. EDI is introduced at the beginning of the relationship.

4.2.6 Shared Technology/Expertise
The company has joint product design with suppliers, and both parties constantly share ideas on how to develop product quality, reduce cost and discuss the introduction of new products. This investment is initiated by Atlas Copco and the suppliers. This investment was developed in the beginning of the relationship and it spans through the relationship life-cycle because of the importance of product development to achieving organizational goals.

4.2.7 Additional findings
The need for a collaborative relationship with their strategic suppliers arose from the need for joint product development with some suppliers. The desire to cut down cost incurred from the use of many different suppliers requiring the set-up of new or different infrastructures was one of the reasons for strategic relationships. These investments according to the company are usually very costly and therefore required closer collaboration with a few suppliers.

Joint investments with the suppliers have, so far, been successful for the company. However, from information gathered, these investments confine the company to be dependent on these particular suppliers with whom they have these joint invests with.
4.3 SAAB Training Systems AB (Case Three)

The department interviewed at Saab Training Systems AB controls and coordinates all purchasing activities in the commodity category. In this subsection of the thesis, the presentation of empirical data contains quotations from the respondent: Stefan Martinsson.

4.3.1 Facility
The company's core business is in the area of software products and as such, they do not have joint investments in facilities.

4.3.2 Equipment
The respondent stated that the company has joint investments in modern test equipment. This structural bond is invested in to test the “products in the most modern way” where the suppliers do not have the equipment needed to achieve this. This investment usually takes place at the development and expansion stages. The respondent emphasized the need to invest at these stages thus: “normally we make plans on how to develop a product and how to test them and since the investments take time, they need to be developed earlier so as to have the machinery in place when needed. You need to have the test equipment at the right time. It is part of the project planning with the suppliers.” The idea for this investment is usually initiated by Saab. The reasons to invest in this equipment are to improve the product quality and enhance the company's competitive advantage.

4.3.3 Human Resources
According to the interviewee, they do not have any joint recruitment of employees with their supplier. However, in the cases of obstacles in achieving what the partnership set out to achieve, the use of “expertise or experts within small areas: could you make an analysis of this part of the product development”. This external organization researches on “what has been done, what could be improved and come up with the report and we use that report when we take the next step to solve the problem.” These external experts are hired for just a short period and this method is used rather than employ additional people for the purpose of the joint investments. This investment could be done at any stage of the relationship depending on when the obstacle is identified and could be initiated by either party.
4.3.4 Training
Initially, the respondent stated that the company does not have joint investment in training, however when probed further, the respondent replied that the company holds “meetings when we sit together, look what we need to do and when we have prototypes, the first products available, we start to test them together to find out if we can say we have achieved the goals for the project”. Additionally, the respondent offered that there are trainings in the area of tooling and this has “greatly improved product quality”.

4.3.5 Information Technology
The respondent remarked that the company jointly invested in a secured link with some strategic supplier for the exchange of sensitive information. The interviewee said “for less sensitive information, we build up websites where we publish our drawings for certain suppliers instead of sending emails”. The purpose is to attain a convenient way of sending documents. This investment is usually undertaken at the development (middle not beginning) stage of their relationship after the skills and strengths of the supplier are known and after some degree of trust has been gained. Also the investment is done at this stage to enable the parties achieve a unique characteristic or specification in their performance. The idea for this investment is usually initiated by SAAB usually with the intention to maintain intellectual property right and prevent competitors from copying.

4.3.6 Shared Technology
As noted by the respondent, “we use joint expertise when we decide to corporate for next generational products”. Once this decision is made, the suppliers are studied in order to identify the strengths and weaknesses and the order winner used in selection depends on which supplier has better engineering skills. The reason for this investment is to benefit from each other’s expertise in joint product development. The idea for this investment is usually initiated by Saab and takes place at the development stage and could extend to the expansion stage of the relationship. The reason is that, once the need to make the core of a product is decided, Saab chooses the suppliers that will develop the sub-system or other equipment that would be used together with these products (joint product development).
4.3.7 Additional findings

In conclusion, joint investments between Saab and their suppliers have been successful, according to the respondent. The reason is that the organization usually “analyze thoroughly before we make the investments”. These investments in a way bound them to stay in the relationship with their strategic suppliers. The reason is that the investments in these structural bonds are usually designed to meet Saab’s product specifications. Additionally, the life-cycle of the products are very long, approximately between 5 to 10 years. Since they are not ready to change this product life-cycle, they are subsequently bound to stay in the relationship. The amount of trust that has been built with these suppliers is another factor that ties them in the relationship.

4.4 Husqvarna (Case Four)

Information from Husqvarna was obtained from a division of the company’s purchasing department. The respondent interviewed is responsible for all strategic relationships in the plastic, rubber, gasket, and textile commodities. In this subsection of the thesis, the presentation of empirical data contains quotations from the respondent: Zsuzsa Velkey.

4.4.1 Facility

According to our respondent, Husqvarna has no joint investments in facility.

4.4.2 Equipment

Husqvarna has joint investments in equipment with some of their strategic suppliers, with the view for automation of processes. According to the interviewee, when asked about the existence of joint investments in equipment she responded thus: “yeah, that we have, not with the rubber but with the plastic suppliers. We have automation of the process and that is a joint investment”. The respondent continued further about the equipment used in automation of process, “these machines that make automatically the things that should be done, so we can save lots of money, reduce manpower and can be used for specific Husqvarna products; so that is why it is a joint investment because it is good both for us and our suppliers”. The idea for this investment was initiated at the expansion stage of the relationship life cycle by both parties.

4.4.3 Human Resources

From information gathered at the interview, Husqvarna has no joint investment in human resources. The respondent explained that, the suppliers usually employ people whom they send to Husqvarna to assist the research and development (R &D) depart-
ment. These people are usually employed for the purpose of the strategic relationship. This example is referred to as single investment by the supplier and does not constitute the focus of this thesis.

4.4.4 Training
Workshop is the form of training used by the company and the suppliers. This workshop involves brainstorming and the development of ideas about business processes and improvements. The workshops also involve joint product development. The respondent stated that “we have a supplier day (workshops) where suppliers are invited and we give them a little education and discuss issues and suggestions”. The interviewee further pointed out that “we have skit programs where we encourage our suppliers to bring up technical changes which can cause cost savings to us”. The idea for this investment could be initiated by either party. There is no particular stage in the relationship where the investment is bound to take place as it takes place in any of the stages in the relationship life cycle.

4.4.5 Information Technology
The respondent remarked that “we have the EDI system with several suppliers”. According to the interviewee, the decision to use the EDI system depends on the volume, value and amount of shipment handled by a particular supplier. The idea for the investment in the EDI system was initiated by Husqvarna at the expansion stage of the relationship. From the information obtained from the interviewee who stressed that, “when we start with a new supplier, we do not start automatically with the EDI. We start with the normal email with the delivery schedules” once the volume increases and becomes more frequent, they initiate the use of the EDI system. The decision as to when to introduce the EDI system is usually decided upon by the planning department of Husqvarna. The respondent further stated that “the decision to use a supplier and introduce EDI is often taken before the strategic relationship is formed, based on, if, we think the supplier can deliver the type of product and quality”. The respondent concluded this section by stating that the company undertakes a research and analyzes the relationship regarding the volume of business the supplier will be offered in 2 – 3 years before deciding on the use of EDI.
4.4.6 Shared Technology / Expertise
As indicated by the respondent, in relation with rubber commodity, the company is “working together with the suppliers because we do not have the knowledge for it”. The respondent emphasized that shared expertise is an important factor in the strategic relationship with the suppliers regarding the rubber products. Therefore, joint investments existed between Husqvarna and their rubber suppliers. The idea for this investment was initiated by both parties and the stage where it is initiated is determined when there is a need to fill a knowledge gap. This means that the initiation of this investment takes place at all the stages of the relationship life-cycle. During the workshops, specifically during joint product developments, the companies synergized their expertise in order to achieve mutual goals.

4.4.7 Additional findings
Investments at Husqvarna, according to the respondent, have so far been successful. The parties are bound to the relationship due to the partnership agreement they have and the joint investments both have entered into. Another thing that ties them into staying in this relationship according to what the interviewee said is “I know that for example the investment in automation is a successful joint investment. If we will like to go out from that supplier that will be very difficult because then we have to make this investment again with another supplier”. The main reason behind their strategic relationships is to get those scarce components that cannot be bought from just anywhere. There are very few suppliers of these components in the world, according to the respondent.
5 Analysis of Empirical Data and Discussions

In analyzing the empirical data collected from the interviews conducted with the case companies, the focus shall be on answering the three research questions arrived at in the synthesis section of the theoretical framework of this thesis.

5.1 Structural bonds and the relationship life-cycle model

| Research Question 1: What are these structural bonds and which are related to the different stages of the strategic buyer-supplier relationships life-cycle? |

Most of the structural bonds (Facility, equipment, human resources, training, shared technology and Information Technology) found in the frame of reference were actually encountered in the case companies during the empirical data collection process. All the case companies invested in some of these types of structural bonds. In the case of facilities, none of the companies has had joint investment in this structural bond; however, only one company (Lagermetall AB) is in the process of expanding their warehouse as a result of the joint investment the company has with a partner. The other case companies do not have joint investments in facilities as one of the companies (SAAB) does not manufacture products requiring large storage facility and the remaining companies have not had the need for such investment. Subsequently, in the cases studied, the authors of the thesis discovered that facility is related to the expansion stage of the buyer-supplier strategic relationship life-cycle.

Regarding Information Technology (IT), all the case companies agreed to having joint investments in IT except for Lagermetall AB (Case one). The reasons being that the company is not a big organization and IT investment requires huge capital outlay. The other companies with significant investments in IT had to invest at the early stages of the relationships. This supports Sheth and Sharma (1997) observation, where it was stated that the first step in strengthening a strategic buyer-supplier relationship is the introduction of technology such as EDI. Whereas cases two (Atlas Copco AB) and four (Husqvarna AB) emphasized the need to invest at the development stage of the relationship, case three (Saab) began investment in IT at the expansion stage of the relationship with their supplier. In most cases, the investments often expand from the stage at which they are developed to higher stages as the relationships progress.

Human Resources as a structural bond is used to determine the employment of certain people to improve the knowledge base of the companies involved in the partnership.
where such knowledge cannot be found within the alliances. Based on the empirical data collected for this thesis, cases two and four do not have joint investments in human resources. The reasons offered by these companies include the fact that they have the competence within the organization and if need be, they will employ the people through the normal company employment processes. The remaining two cases (1 and 3) elaborated that the need to feel the gap or competence, drives the organizations to employing someone specifically for joint investments with the suppliers. Both organization with joint investments in human resources agreed that such investments are made at the beginning of the relationship and could run through the other stages of the relationship life-cycle.

The remaining structural bonds (equipment, training and shared technology) are invested in by all the case companies. Another similarity is that all the companies agreed that these structural bonds are introduced early in the relationships and they are maintained during the other stages of the relationship life-cycle. In the case of shared technology, there are concerns regarding the early introduction of this bond in a strategic buyer-supplier relationship, by some researchers (Volsky & Wilson, 1994 and Wilson 1995). These mentioned researchers emphasized that investing in shared technology at the early stage of the relationship could be a barrier to the growth of the relationship. They also stated that as the relationship develops, shared technology will contribute to making the relationship stronger. Based on the case companies, shared technology is initiated at the beginning of the relationship, contrary to the concerns of these researchers. The reason for these differences in opinion is based on the competences these case companies look for, before the formation of the strategic relationships.

The summary of the analysis based on the empirical study carried out with the four case companies is shown in figure 5.1. In the diagram, the different structural bonds are mostly introduced at the beginning (formation stage) of the relationship life-cycle and they are related to the other different stages of the relationships as the relationship progresses and grows. The reason is that these bonds continue to play significant roles in the relationship at the different stages.

Information presented in figure 5.1 shows the relationship between the four case companies interviewed. Where the full symbol (4 firms) is used, this connotes similar observations regarding the structural bonds and how they are related to the different stages.
of the relationship life-cycle. Where there are three-quarter (3 firms), half (2 firms) and one-quarter (1 firm) symbols, this shows that either some of the companies do not invest in the bonds or that the stage where the bonds are initiated are different.

<table>
<thead>
<tr>
<th>Relationship life-cycle / Structural Bonds Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities</td>
</tr>
<tr>
<td>Equipment</td>
</tr>
<tr>
<td>Human Resources</td>
</tr>
<tr>
<td>Information Technology</td>
</tr>
<tr>
<td>Shared Information</td>
</tr>
<tr>
<td>Employee(s) Training</td>
</tr>
</tbody>
</table>

**Figure 5.1: Relationship life-cycle / Structural bonds Model**

5.2 Reasons for structural bonds

*Research Question 2: Why are different structural bonds initiated / developed in a strategic buyer-supplier relationship?*

From the empirical data obtained during the interviews with the case companies, structural bonds in a strategic buyer-supplier relationship are initiated for different reasons. The reason for their introduction varies from company to company and the most frequent and reoccurring reasons identified are categorized under the following subgroups:

5.2.1 Product quality and Competitive edge

According to the case companies who had invested in equipment (quality/test machines), their main reason for this investment was to meet up with the desire for constant product quality testing which according to them is a way of providing their customers with better product quality than their competitors, thus ensuring competitive
edge. Similarly, improving the quality of the product supplied, especially those in Asia, is another reason offered for initiating structural bonds in the strategic relationships. By investing in joint equipment, the standards of the product from the suppliers can be improved to conform to the standards in Europe, where the customers are based. Ng (2009) confirmed the importance of product quality by stating that “In the early stages of the relationship, organizations emphasized the importance of product and service quality”.

Another reason suggested for the joint investment is the need to increase reliability in some suppliers that are specialist within different areas. Because some of the strategic suppliers initially had arm’s length relationship with the companies, by transforming the relationship to a strategic one and engaging in joint investments, the buying firm is showing that the supplier is reliable, a worthy partner and maintaining relationship continuity. In line with the competitive edge is the need to achieve mutual goals, improve and promote the business of the partnership.

5.2.2 Time Saving and Cost Cutting
The need to save time, cut cost, improve lead time and produce a cheaper product with a low life-cycle cost is a reason provided by the companies interviewed during this study. To some of these companies, cost plays a major role in determining the final product price and as such, sourcing from outside Sweden ensured that some materials used in production can be bought relatively cheaper. Another reason adduced for initiating joint investment is cost efficiency. Regarding cost efficiency, the respondents expressed the importance of joint investments as sharing the cost of ownership of equipment as well as improving the company’s time to market. In achieving this, organizations are importantly and strategically collaborating with very few suppliers, thereby building infrastructures together with these suppliers in order to be price competitive and create competitive advantage in terms of improving the market share. This is confirming the statements earlier stated in the introduction section of this thesis regarding collaborative relationship with fewer suppliers through supplier rationalization (Rushton & Walker, 2007).

The need to compete price-wise with the competitors is another reason for developing structural bonds in a buyer-supplier relationship. A lot of companies are striving to
maintain quality and reducing the cost of production so that the customers can receive more value for the same price. Additionally, the need to manage cost arising from using many different suppliers which might require lots of investments in setting up new infrastructures was also advocated for the investments in structural bonds.

Another reason offered for initiating structural bonds is to enable an easy way to handle order flow with the suppliers. This involves eliminating the inconveniences associated with manual ordering, confirming orders, sending advice and invoice and generally, lowering the transaction costs of doing business. Following the information gathered from the different companies, joint investments in equipment and Information Technology are related to time-saving and cost cutting.

5.2.3 Joint product development
One peculiar reason for initiating structural bonds is to jointly establish new product development ideas while benefiting from the different skills from both parties. The combination of these different skills aids the introduction of new products. The products can be tested using modern techniques and methods the partners have jointly invested in. Additionally, as opined by another of the respondents, the collaboration with the supplier often leads to the development of next generation of products. In achieving joint product development, training and shared technology/expertise played important roles.

5.2.4 Meeting customers’ demand
Another reason offered for these joint investments is the need to meet up with customers’ demand. All the case companies opined the importance of meeting customer demands as re-occurring reasons for engaging in strategic relationships and jointly investing in structural bonds. According to the empirical data obtained from the case companies, equipment and Information Technology are related to meeting customers’ demand.

5.2.5 Knowledge sharing and Transfer
The need to transfer knowledge and enable a better understanding of the organization’s product is one of the reasons for investing in structural bonds in a strategic buyer-supplier relationship. The organizations in a strategic relationship have the possibility and opportunity of benefitting from the expertise or knowledge available within the dyadic relationship (Badaracco, 1991). Knowledge transfer is undertaken in order to ac-
quire specific knowledge that can improve the development of the buyer-supplier relationship so as to achieve mutual goals. Since knowledge also resides within the relationship, developing joint investments between the buyer and supplier enable the tapping and understanding of the competences within the dyadic relationship. It also enables filling the knowledge vacuum within the relationship. This can be attributable to the hiring of experienced and knowledgeable individuals during the formation of a strategic buyer-supplier relationship. Training, shared technology/expertise, Information Technology and human resources are important structural bonds to the attainment of knowledge sharing and transfer in the case companies.

5.2.6 Innovation
The process of innovation can be related to the other factors or reasons stated above for initiating structural bonds in a strategic buyer-supplier relationship. In order to be competitive and also be ahead of the competitors, organizations need to be innovative. To achieve innovation, constant dialoguing with suppliers through trainings, seminars, meetings, workshops, knowledge transfer and sharing are some of the enablers. Additionally, meeting customers’ needs and specifications is a reason for organizations to be innovative. Some organizations use strategic relationships with their suppliers to create innovation through the production of quality products (Ellram, 1991). In order to achieve innovation, training and equipment are the structural bonds invested in by the partners in a dyadic buyer-supplier relationship.

5.2.7 Communication
Within this area, different reasons have been adduced for investing in some structural bonds. One of such is the reduction of the inconveniences associated with the use of fax machines, tracking clients via the telephones, sending emails that are not responded to rapidly and sending normal mails through the post offices. Another reason is the need to exchange sensitive information between the buyer and the suppliers. This is important to maintain intellectual property right and prevent competitors from copying the product without permission. Another important factor here is the use of training, seminars and workshops to communicate between the buying and supplying organizations. Information Technology and Training are more connected to achieving communication goal.
5.3 The influence of Structural bonds

Research Question 3: Who initiates the introduction of structural bonds in a buyer-supplier strategic relationship and what influence do the structural bonds have on the relationship?

5.3.1 Who initiates structural bonds

According to the empirical information gathered from the case companies during this study, either of the party in a strategic buyer-supplier relationship can initiate the creation of a structural bond, though the study discovered that the more powerful partners initiated most of the ideas for the creation of structural bonds. This situation, according to Cox (2001, p. 10) “is a power relationship of buyer dominance”. In a way, the powerful partner tends to use the position to influence the relationship. However, there is a great element of interdependency within the relationship (Powers & Reagan, 2007). Cox (2001, p. 13) emphasized this interdependency by stating that “both the buyer and the supplier possess resources that require the two parties to the exchange to work closely together”. As Powers et al. (2007) emphasized, structural bonding consists of the dependence of each partner in a strategic relationship on the other party’s accomplishment. In a strategic partnership, Bensaou (1999) stated that, the parties depend on strong recognized skills, expertise, strengths and capabilities displayed in the design, engineering and manufacturing of products. This interdependency was also confirmed during the interview when some of the companies confirmed the process of rationalization, by streamlining the number of suppliers in order to form strategic relationships with the very few thereby avoiding the costs of switching and the fact that the suppliers are willing to meet the needs of the buying firms. The companies further stated that after the rationalization process, both companies depended on each other to remain in business. In order to accomplish this, they resorted to the various joint investments.

These structural bonds can influence a strategic buyer-supplier relationship in the following ways:

5.3.2 Trust

One of the influences presented by the case companies during the interviews was that the introduction of structural bonds in a strategic buyer-supplier relationship plays a major role in increasing the level of trust in the relationship, which according to Wilson
(1995) is a critical variable in the formation and maintenance of a strategic buyer-supplier relationship. Trust has attracted immense attention from researchers, both past and contemporary. Trust, as affirmed by Skarmeas and Katsikeas (2001, p. 231) is “the willingness to rely on an exchange partner in whom one has confidence”, and “the bedrock on which business is built” (Luo, 2002, p. 111). The respondents stated that, once there is an existing joint investment with a partner in a strategic relationship the degree of trust increases. A common term used by the respondents is the “open book system”. This system, according to the respondents, is used to eliminate opportunistic behaviours by the partners in the dyadic relationship and to present facts and figures regarding the affairs of the partnership. This view also supports the one opined by Bensaou (1999), in stating that the joint investments in structural bonds increases the likelihood of risk and damage of any opportunistic behaviours by any of the parties in the dyad. The open book system is likened to transparency, which Lamming, Caldwell, Harrison and Phillips (2001, p. 5) referred to as seeking “to distribute or share the benefits of greater openness as widely as possible.” Transparency is best achieved if it is two-way (Lamming et al. 2001) and it can further enhance the development and progress of the relationship.

5.3.3 Lock-in effect
Whereas one of the case companies stated that structural bonds do not tie them down in a strategic buyer-supplier relationship, the other case companies stated otherwise. Understanding from this company’s view point, companies might consider an unsuccessful project as lost investment. Notwithstanding, the authors of this thesis are of the opinion that apart from the partnership agreement that ties down the parties in a strategic buyer-supplier relationship, the joint investments/structural bonds established for the purpose of the relationship also ties down the partners in the relationship. This supports some earlier stated researchers in the area of structural bonds: Nahapiet & Ghoshal, (1998), Smith (1998), and Wilson (1995) that alleged that by introducing structural bonds, partners in a strategic relationship are tied to such relationships and thereby making it extremely difficult for the relationship to be terminated or for any of the partners to exit it. Three of the case companies in this study stated that, changing from one relationship to another will imply setting up new infrastructures which are usually very costly to set up.
The case companies further proclaimed that they were not ready to embark on such new cost and so are bound to stay in their existing relationships.

5.3.4 Commitment and Cooperation
Structural bonds increase the degree of commitment and cooperation in a strategic buyer-supplier relationship. Just like trust, commitment and cooperation has received huge attention from research in the area of buyer-supplier relationship. Structural bonds enable the partners to focus on the long-term nature of the relationship with the hope that the relationship will be beneficial in the attainment of future mutual profit (Coote, Forrest & Tam 2003). According to Dwyer et al. (1987), trust results into commitment in the later stages of a buyer supplier relationship. This commitment as stated by (Anderson and Narus, 1990 & Cannon and William, 1990) is the extent to which partners in a strategic buyer-supplier relationship understand the need of working jointly for the achievement of mutual goals.

Even though some structural bonds are introduced at the early stages of the relationship, the partners in a strategic relationship may have been in business relationship for a while. The level of commitment and cooperation, oftentimes may have commenced prior to the establishment of strategic relationship and the introduction of structural bonds, based on the research, increased the commitment and cooperation in the relationship as both companies in the dyadic relationship continue to be engaged in the business to achieve mutual goals. The respondents in this study stressed the existence of structural bonds in the relationship increased their level of commitment and cooperation due to the investment of both human and financial resources in achieving goals. This is amplified by Ellram (1991) that as the continuous business relationship increases the level of transactions between the actors; this inevitably leads to a higher level of commitment and trust.

5.3.5 Information sharing and exchange
Another influence identified is higher degree of information exchange/sharing. The existence of structural bonds in a strategic buyer-supplier relationship offers a wider opening for more information sharing. This is because, the parties constantly need to share information that will enable them maximize the use of this established structural bonds, which could allow the partners achieve success or mutual goals in the relationship. This
statement is in conformity with what (Doney and Cannon 1997) stated that voluntary information sharing in a strategic relationship is a major success contributing factor.

5.3.6 Performance and success
Improved performance and achieving success from the joint investment in structural bonds is another influence derivable from the relationships. All the respondents confirmed that the structural bonds led to improved performance as product quality was maintained, price reduction achieved and since the cost of investments was shared, the companies were better off at the end (Han et al. 1993). The successful outcome of the structural bonds increased further business dealings between the companies, according to the respondents. The success achieved from one structural bond extended to more joint investments and improved relationship.
6 Conclusion

Structural bonds’ role in strategic buyer-supplier relationship has received very little attention from researchers. In order to expand the understanding of this role, the authors of this thesis formulated the following purpose: to investigate which types of structural bonds are associated with the different stages of a strategic buyer-supplier relationship’s life-cycle. To fulfill this purpose, a multiple case study involving four companies across different industries was undertaken.

6.1 Theoretical contribution

Following the presentation of the relationship life-cycle and the different structural bonds discovered from the theory section of this thesis, the authors of this study presented a synthesis, from where the research questions for this study were arrived at. The empirical data collected from the in-depth interview conducted with four companies led to the development of a framework that was presented in the analysis section of this study. Consequently, the study discovered the following theoretical contributions.

Firstly, it was discovered that structural bonds, just like other variables or enablers, are very important in a strategic buyer-supplier relationship. As shown in the analysis section, there is interrelationship between structural bonds and trust, commitment, cooperation, and performance. Even though these other variables are present in the relationship, the introduction of structural bonds strengthens the levels of these variables in the relationship. This conclusion fulfills one of the intended contributions of this study which was to show the importance of structural bonds to the development of a strategic buyer-supplier relationship. This contribution supports the views of Dwyer et al. (1987) in stating trust and commitment are important in any business relationships.

Secondly, structural bonds can be developed or initiated from the beginning of the strategic buyer-supplier relationships life-cycle. Additionally, the study concluded that the investments in structural bonds like: equipment, training and shared technology is discussed before the strategic relationship commences. This is because of the roles these bonds play in the quality of the products on one hand, and in the quality of the relationships on the other. The above contribution contradicts the statement presented in the theory section of this study by (Dwyer et al. 1987, and Baker & Hart, 2008 as well as Ng, 2009). These researchers claimed that discussions about investments are made at the exploration / development stage of the relationship, whereas the findings made,
based on this study, is that the discussions are finalized before the commencement of the strategic relationships.

Thirdly, even though some companies invest in the same type of structural bond at different stages of their relationship, the reasons for such investment are similar. From one case company to the other, the objective was either to achieve a stronger competitive edge over competitors, save time, cut cost, be innovative or achieve joint product development ideas. During this study, the authors of this thesis discovered other reasons for these joint investments in structural bonds as: ease of communication between the buyer and supplier. An example is the use of EDI to communicate between the buyer and the supplier. Apart from cutting costs, the use of EDI has improved lean production and also supported Just-In-Time (JIT) system. This contribution supports the views of Cannon and Perreault (1999), when the researchers emphasized that JIT, well-managed inventory system and a computerized order placing technologies require closely connected strategic buyer-supplier relationships.

Another contribution not found in any literature is knowledge sharing and transfer. By investing in structural bonds, the partners are able to share expertise and conduct different training programmes, workshops and seminar. These increased the knowledge based of the partnership as well as enhance the sharing of this knowledge.

Lastly, though passed researches in this area concluded that structural bonds tie down the partners in a strategic buyer-supplier relationship, this thesis concludes that even though structural bonds tie the parties down in the relationships, there is a possibility that a partner could still leave the relationship if the partner decides that losing the investment is not as worse are remaining in the relationship. Such a decision could be taken as a result of quality of product, higher cost of doing business, stifling of growth and other reasons. In one way, this contribution supports the views expressed by Smith, (1998), Powers and Reagan, (2007), and Wilson, (1995) that structural bonds tie down the parties in a strategic buyer supplier relationship together. In the other way, the contribution adds to this theory by emphasizing that any of the partners might exit the relationship depending on the gravity of the problem, notwithstanding the joint investments in structural bonds.
6.2 Managerial contribution / Implication

The fact that all the companies alleged that the joint investments were successful does not mean that all such investments carried out by the buyer and supplier will always be successful. One reason why these investments have been successful is the thorough analysis carried out by the companies before embarking on these investments. It is noteworthy for managers to critically appraise every joint investment before the decision to invest is made.

In addition to the importance of strategic buyer-supplier relationships, managers should also understand the importance of the structural bonds to the relationship as well as to the attainment of mutual goals. Where such importance is not stated before the commencement of the joint investments, the partners might not be able to totally capture the benefits the structural bonds has brought into the relationship.

From the interviews conducted, the understanding is that the process of developing structural bonds began before the strategic relationships are consummated. It behooves on the managers to have this long-term plan addressed during the search for credible partners or during the process of supplier rationalization. This action might be accompanied by the thorough analysis mentioned above.

Managers should be aware of the role of power and dominance in a strategic buyer-supplier relationship. Even though the supplier might be the only organization with the expertise to supply a particular type of product, which ordinarily should give the supplier the power and dominance over the buyer, the financial size of the buying firm and the quantity of purchase might switch the power and dominance favour away from the supplier to the buyer. In like manner, a medium size supplier can have power and dominance over a large size organization because of the importance of the material to the production process of the large firm.

6.3 Final reflection and suggestion for future research

Conducting this study was a challenge in different ways. At first, the author of this thesis did not envisage the enormous assignment, until it was discovered that there are virtually little or no research conducted in the role structural bonds play in the buyer-supplier strategic relationship life-cycle. Consequently, the first challenge was to source
for already written literatures in the area of buyer-supplier relationship and the structural bonds.

Another of the challenges faced by these authors is companies for the case study. The initial plan was a single case study, however in order to improve the reliability and validity of the study, the authors resorted to multiple case study approach. Initially the authors intended to use case companies from the same industry (the steel industry). At the time of contacting these companies, most of them turned down the request to be interviewed while some that accepted scheduled a date beyond the deadline for the submission of the thesis. Also, because of time constraint these authors resorted to getting case companies involved with manufacturing as a whole. Due to the fact that only few companies were used in each case, the generalizability of this research is limited. We therefore recommend that future research should be conducted from within the same industry so as to increase the generalizability of future findings.

As usual in a research of this magnitude, time constraint becomes a challenge. The authors of this thesis faced similar problem with time as it was difficult reaching out to companies and getting immediate feedback or response. The time spent sourcing for case companies, honouring a call back appointment affected the time scheduled for the thesis writing. Additionally, some courses were running concurrently with the thesis, which also affected the time needed to be spent on the thesis. The advice is for future students to begin working on the research during the holiday prior to the beginning of the next semester, in order to have covered substantial part of the theory and literature section of the thesis.

Funding is another challenge faced by these authors. As a result of funds, the authors restricted the case companies to two cities: Örebro and Jönköping. With available funds, the study’s area of concentration might have been extended beyond these two cities. Advice for students regarding funding is to concentrate their study within the vicinity of the university and also to begin the search for qualified case companies earlier in order to avoid the problem of funding.

Since the study has not received lots of attention in the past and might require more in-depth research involving more case companies, the author of this thesis opined that future research could concentrate on the relationship between structural bonds and other
variables/enablers in a strategic buyer-supplier relationship. This will further explain the relationship between structural bonds and these other variables and build upon the success achieved in the course of this study.

A critical investigation into the role power and dominance plays in the process of initiating structural bonds is another area requiring future research. In the course of this study, it was discovered that power and dominance has a role in the initiation of structural bonds in a buyer-supplier relationship. Since the purpose of this study did not include investigating this role, future research could be carried out to further explain this.

Another area requiring future research is the influence of failed investment in structural bonds on future joint investments by the organizations. By studying companies with failed joint investments, a solution could be found to why these joint investments failed in some companies and were successful in others. Though this study did not discover any failed joint investment, it was understood that there are instances where joint investments actually failed.

Another area for future research is investigating the role of structural bonds from the point of view of a supplying firm. The focus of this study, in the first instance, was the buying firms. However, due to the problem in searching for case companies, the authors of this study inevitably utilized the support of both the supplying and the buying firms as case companies. In suggesting future research in this area, the authors of this thesis believed that such a research will discover more important roles specifically played by the supplier firms in a buyer-supplier strategic relationship.
References


Appendix

A. Profile Analysis of case companies

I. Lagermetall AB

Lagermetall AB was founded on January 1st, 1979 by V:son Hellström who is also the major shareholder of the company. The company’s business-idea is, "We grow with our clients”, and the business-concept is: High serviceability and excellence in quality to an acceptable price level. The contact address is Boskärgatan 23, 702 25 Örebro. With about 20 employees, the annual turnover of the company in 2008 was 71 MSEK (Seventy-one million kronor).

LM’s product line:

- Half cast material in Bronze- and Copper alloys
- Self-lubricating plain bearings of sintered bronze and sintered filters.
- Self-lubricating and pre-lubricated bearing with three-layer PTFE coating.
- Wrapped, rolled bushings in bronze and also multi-layer bushings
- Machined bearings in Bronze- and Copper-alloys
- Techno-polymer, injection moulded bushings and rod ends
- Sliding elements with “built-in-graphite”
- Springsteel bushings

Lagermetall AB is certified with ISO 9001:2000 and ISO 14001:2004. The basic requirement for their partners is high quality and full traceability of the production and analysis of bronze elements. The company has over 3000 registered customers, consisting of small, medium and large companies in over 60 different industries.

Applicational area for LM:s products

Lagermetall AB products can be used in all mechanical applications in all branches. The products can also be used as a component in their own products or for repairs and maintenance of existing machine or equipment.

For example in the following branches:

- **Automotive industry:**
  Wiper arms, door mirrors, foot peddlers, fans, 4WS units, strut etc.
- **Office machines:**
  Printers, computers, typewriters, solenoid valves, tape recorders etc.
- **Agricultural machinery:**
  Mills, hay tenders, potato harvesters, planting machines, tractors etc.
- **Paper/wood/pulp-industry:**
  Timber- & chain-saws, cutting machines, folding machines, looms etc.
- **Steel-industry:**
  Sliding plates, steel & rolling-mills, oven details, body presses, tool posts etc.
- **Electricity o. tools:**
  Switch gears, contactors, pneum. tools, hydraulic tools, transformers etc.
- **Domestic appliances:**
  Micro-ovens, food processors (mixers, blenders), lawn mowers etc.
• **Medical equipment:**
  Dental equipm., X-ray equipment, medical turntables, wheelchairs etc.

• **Construction industry:**
  Lift components, excavators, concrete mixers, caterpillars, escalators etc.

• **Other uses:**
  Valves, blinds, drying plant, baking machinery, screws and bolts, awnings etc

II. **Atlas Copco Rock Drills AB**
Atlas Copco Rock Drills AB is a manufacturer of underground and surface rock excavation equipment for the construction and mining industry. The company was founded in 1873 and is certified with ISO 14001.

Atlas Copco is an international group of industrial companies with its head office in Stockholm, Sweden. In 2011, the Group had revenues of SEK 81 billion and over 37,500 employees in more than 50 countries. Atlas Copco companies develop, manufacture, and market electric and pneumatic tools, compressed air equipment, construction and mining equipment, assembly systems, and offer related service and equipment rental.

**Vision and mission**

The Atlas Copco Group’s vision is to become and remain First in Mind—First in Choice® of its customers and other principal stakeholders. The mission is to achieve sustainable, profitable development.

**Structure:** The group is organized in three separate, focused but still integrated business areas, each operating through divisions. The role of the business area is to develop, implement and follow up the objectives and strategy within its business. The divisions are separate operational units, each responsible to deliver growth and profit in line with strategies and objectives set by the business area. The divisions generally conduct business through customer centers, distribution centers and product companies.

III. **SAAB Tech AB**

Saab was found in 1937 with the aim to meet the domestic aircraft need in Sweden. Today, Saab serves the global market with its products, services and solutions that range from military defence to civil security and celebrates 75 year of defence and security this year. Saab continuously develops, adapts and improves new technology to meet customers’ needs.

The brand Saab is actually used by two parties- Saab AB and Saab Automobile AB though they have been operating separately since 1996. Saab Tech AB Stensholmsvägen 20 Huskvarna, 561 39 was interviewed for this study which is a division of the Saab group.

Saab has about 12,500 employees with an annual sale of about SEK 24 billion of which about 20 percent is related to development. Saabs operations are divided into five business area- aeronautic, dynamic, electronic defence systems, security and defence solutions, support and services.
IV. Husqvarna AB

Husqvarna is a manufacturing group with its business mission being to develop, manufacture and market mainly power products for forestry, lawn and garden maintenance, as well as cutting equipment for the construction and stone industries. Its vision is to create value for all stakeholders through sustainable profitable growth by being number one globally in the product market segments where it operates.

The Husqvarna group comprises of five business units: Product Management and Development, Manufacturing and Logistics, Sales and Service Europe & Asia/Pacific, Sales and Service Americas and Construction.

The first Husqvarna plant was established in 1689 and in 1978 Electrolux acquired Husqvarna and then its outdoor products consisted mainly of chainsaws. In the 1980s, its operations expanded via acquisitions and it subsequently achieved organic growth as the years went by and eventually gained the leading position in the global market.

Its product range includes products for both consumer and professional users within the following range:

- **Ride –on –products consisting of mainly riders, garden tractors and zero-turn mowers.**
- **Walk-behind products made up of** lawn mowers, robotic lawn mowers, tillers and snow throwers.
- **Handheld products they are** mainly chainsaws, trimmers, clearing saws, blowers and hedge trimmers.
- **Construction products** - mainly power cutters, floor saws, drilling equipment, wall-wire saws and a complete range of diamond tools.

It is also a leader in the European consumer watering products, cutting equipments and diamond tools for the construction and the stone industries. Its products can be found in over 100 countries via its dealers and retailers in the following brand names Husqvarna, McCulloch, Gardena and Diamant Boart.

Husqvarna’s product market is estimated at SEK 150 billion annually with North America and Europe accounting for approximately 60% and 30% respectively and the rest of the world accounts for the remaining 10%. The company’s annual growth in global demand is estimated at 2-3% in terms of volume over a business cycle. As at 2011, the group had sales of SEK 30 billion and an average of 15,700 employees.
B. Interview Guide

Opening & General Strategic relationship Questions
- The company obviously has strategic relationships with a couple of their suppliers. How many suppliers do you have strategic relationships with? Where are these suppliers located?
- What prompted the need for the establishment of a collaborative relationship with your suppliers or buyers?
- When did the relationship start? How did it evolve? At what stage is the relationship currently?
- Do you undertake joint investments with your suppliers? Why?

Information Technology
- Do you have joint investments in EDI system, RFID, barcodes, Information Technology, etc.? What do these investments entail?
- When were these investments made?
- Who initiated the investments (buyer, supplier or a 3rd party)?
- Why were these investments initiated?
- Were the investments planned before the commencement of the relationships or did the need for such investments arise after the relationship began?

Shared Technology or expertise
- Do you have joint investments in technology leadership, exchange of technological information, or other forms of shared technology? What do these investments entail?
- When were these investments made?
- Who initiated the investments (buyer, supplier or a 3rd party)?
- Why were these investments initiated?
- Were the investments planned before the commencement of the relationships or did the need for such investments arise after the relationship began?

Facilities
- Do you have joint investments in warehouses, warehouse systems, factories or/and office spaces, etc.? What do these investments entail?
- When were these investments?
- Who initiated the investments (buyer, supplier or a 3rd party)?
- Why were these investments initiated?
- Were the investments planned before the commencement of the relationships or did the need for such investments arise after the relationship began?

Equipment
- Do you have joint investments in vehicles, tools, machineries, etc.? What do these investments entail?
- When were these investments made?
- Who initiated the investments (buyer, supplier or a 3rd party)?
Why were these investments initiated?
Were the investments planned before the commencement of the relationships or did the need for such investments arise after the relationship began?

**Human resources**
- Do you take joint decisions and have joint employees recruitment in order to achieve the goals of the relationship? What do these employments entail? Are they like normal employment of staff?
- When were these employments made?
- Who initiated these employments (buyer, supplier or a 3rd party)?
- Why were these employments initiated?
- Were the employments planned before the commencement of the relationships or did the need for such employment arise after the relationship began?

**Training**
- Do you have joint employee trainings? Organizing joint seminars, workshops, information meetings, etc.? What do these investments entail?
- When were these trainings made?
- Who initiated these trainings (buyer, supplier or a 3rd party)?
- Why were these trainings initiated?
- Were these trainings planned before the commencement of the relationships or did the need for such trainings arise after the relationship began?

**Other joint investments**
- Are there other types of joint investments not touched by this interview? Could you name or list them?
- When were these investments made?
- Who initiated the investments (buyer, supplier or a 3rd party)?
- Why were these investments initiated?
- Were the investments planned before the commencement of the relationships or did the need for such investments arise after the relationship began?

**Closing questions**
- Was the outcome of these investments successful? Why or why not? Any regrets?
- Did the investments prevent any of the parties from leaving the relationship? Why or why not?
- What would be the consequences for leaving the relationship by any of the party?

What if the investments cannot be recovered, what effect can this have on future joint investments with suppliers/buyers?